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# Mystery of Beauty Sense and Evolution of Needs

## (美感奥妙和需求进化)

Lu, Chenguang  
鲁晨光

The full text of the Chinese book: <http://www.survivor99.com/lcg/books/beauty/index.htm>

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### The Author' s Preface in English: Course of Discovering the Mystery

#### 1. Thinking in Mountainous Forestland

After exploring the domain of aesthetics, my final viewpoint is very close to common peoples' opinions, which are seemly very extreme, in that "A lady is beautiful in the eyes of her lover"; "The harder it is to obtain, the more beautiful the object will be". I concluded that the more we want to come near some objects for the sake of need, the more beautiful they will be; need arouses not only the differentia of the beauty sense but also the beauty sense; need and desire create beauty sense, which further excites need and desire to a greater extent. This rule is not only applicable to humankind but also to the animal world. When I say that I have discovered the mystery of beauty sense, I actually mean that I have discovered the answer for the mystery of why human thinking has been puzzled by the relationship between beauty and utility, and have found the explanation from the viewpoint of natural science of "beauty comes from desire".

Why am I, a graduate from an engineering institute, interested in this research? It is a long story. When I was in high school, I borrowed a popular science book on Darwin' s theory of evolution from my classmate Cao Hong, who is the vice-chairman of Xuanzhou Literature and Arts Union now. The book was so old that the pages looked yellow, but it had many pictures with sufficient information and hence was very attractive. Because of the Great Cultural Revolution, this kind of book was very rare. After several days, the world had totally changed in my mind. Before reading this book, I had heard about Kant' s cosmic theory of the original nebula. How was the

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world evolving from Kant' s original nebula to current nature and human society? Darwin' s theory significantly broadened my insight. Since then, the evolution theory has been firmly implanted in my mind.

Soon after, I graduated from high school and went to the countryside. I worked at a forest farm, called the Forestry Team, owned by a collective group of peasants. Except for planting trees and growing sweet potatoes, guarding the forest was most regular work.

City residents now must admire my working as a forest guard. I often climbed to the mountaintop with a woodcutting knife in hand and sat on rocks where eagles often rested. Under the rocks, there were fox burrows. Besides the rocks, snakes, some of which are longer than a man, often whished across the grassland and bushes. There were various wildflowers and fruits on the hillside. Especially in the summer, purple prunella Vulgaris grew all over the hill; the wild berries were everywhere along the dam of the reservoir in the valley. Fortunately, I had read the book about the evolution theory. It was joyful to think of the skill and harmonization of nature after working hard. I realized that wildflowers are flamboyant and aromatic specifically for attracting bees and butterflies to collect the pollen for cross-pollination between different flowers; fruits are tasty for animals to swallow their seeds to spread everywhere through dejecta. I thought about whether or not the plant had a painful feeling. The conclusion was "no" because the painful feeling was only for urging the body to move to avoid being hurt. The plant could not move; therefore did not have any painful feeling. Why did berries and many fruits taste good to humans and many animals? It was because of their nutrition. Good taste would inspire us to eat more, which is necessary for survival. Did apples taste good to wolves and eagles? The answer was "no." Otherwise, they would not have eaten only other animals. Was the sweetness of the apple the property of the apple itself? It should not be because the functions of human feelings came into being only for the need of survival.

On the other hand, why were peppers and Chinese medicine hot or bitter even if they were good for human health? What happened to tobacco, liquor, and opium, which probably tasted good but were harmful to human health? The answer was that while the evolution was still progressing, the flaws would gradually be eliminated.

At that time, I did not realize that I was following the path designated by Darwin' s principle of the survival of the fittest towards thorough biological utilitarianism. That is to affirm that not only the human body' s structure, but also the human functions of sensations and feelings, have been developed for the need of survival, or say, have been preserved by natural selection because

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they are necessary to survival. Later, I realized that Darwin had not been so affirmative as I was about the biological utilitarianism.

## **2. Biological Utilitarianism and Esthetic Utilitarianism**

I was lucky to be admitted by Nanjing Aeronautic Institute, whose name has been changed into Nanjing University of Aeronautics and Astronautics, after passing the first examination for choosing university students after the Great Cultural Revolution at the end of 1977. My major was airplane manufacturing. I entered this institute only because my assignment was prescribed rather than selected. I dared not to choose a university or institute related to military affairs because my father was accused rightist in 1958 and jailed for several years. We had not lived together for a long time. I was afraid that someone would write letters to the university, and I would be expelled from studying at the university; therefore, I didn't tell friends and classmates for several months.

Since I was interested in literature, I read many worldly famous literary works and many literary magazines and also read some articles of aesthetics. Because of my thinking in mountainous forestland, once I was exposed to various esthetic standpoints, I felt they lacked fundamental support of natural science and must be incorrect. From the beginning, I have believed that the problem in aesthetics is essentially the same problem as that with beauty sense, and the problem with beauty sense is actually the problem with how the human function of beauty sense came into being and was evolving. This is a biological problem. We should be able to find the answer from Darwin's theory.

At the time, my classmate and the class's Youth League secretary Diao Yuzhang borrowed Darwin's book "The Origin of Species" from the library. I thought that I should have read this book earlier. After reading the book, I had a more comprehensive understanding of Darwin's theory of evolution. I was especially interested in the detailed descriptions and discussions about animal's beauty sense. However, Darwin was uncertain as to how animals obtained beauty sense functions.

A billion years ago, the Earth was a bleak place without any creatures. Now the flowers are gorgeous, and the fruits are polychrome; the birds unfold magnificent feathers. How did these happen? Darwin explained that every detail of the structure of biology had been produced only for the good of its possessor. The fragrance and flamboyance of flowers were preserved by natural selection because they could attract insects to pollinate flowers. The sweetness and beauty of fruits were preserved by natural selection because they could attract more birds and beasts to swallow their seeds to spread through dejecta. The bird had magnificent

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feathers because they were helpful for birds to obtain the love of isomerism to win in sex selection. However, why did insects, birds, and beasts possess these kinds of pleasant feeling functions or mentality? Darwin wrote in “The Origin of Species” :

“How the sense of beauty in its simplest form—that is, the reception of a peculiar kind of pleasure from certain colors, forms, and sounds—was first developed in the mind of man and of the lower animals, is a very obscure subject. The same sort of difficulty is presented, if we enquire how it is that certain flavors and odors give pleasure, and others displeasure. Habit in all these cases appears to have come to a certain extent into play, but there must be some fundamental cause in the constitution of the nervous system in each species.” [\[1\]](#)

Darwin finally proposed a systematical solution in “The Descent of Man and Selection in Relation to Sex.” However, from my viewpoint, this book is not able to resolve the mystery of why the functions of the beauty sense of animals came into being. It has dramatically weakened the universal significance of the principle of natural selection by adding the principle of selection according to beauty to the law of natural selection!

On the one hand, aesthetics needs biology as a foundation; but on the other hand, biology itself is perplexed by the problems with beauty sense. For this reason, I read massive esthetic works, including Li Zehou’ s “Aesthetics Corpus,” Zhu Guangqian’ s “History of Western Aesthetics” , Beijing University Philosophy Department’ s “On Beauty and Beauty sense by Western Estheticians” , and Kant’ s “The Critique of Judgment” . Because Aesthetics involves the theory of reflection, I read many books about the general sensations, especially about color vision, which resulted in my other discoveries in areas of color vision and information theory.

I believe Darwin’ s principle of the survival of the fittest and biological utilitarianism based on this principle are correct. The question is how to explain various esthetic phenomena of humankind and animals, and to resolve the contradiction between the utilitarianism and the anti- utilitarianism in aesthetics?

The biological utilitarianism affirms: biological structures, including those feeling functions, have been produced and developed only for the good of its possessor. The esthetic utilitarianism asserts: an object is beautiful because it is useful. The esthetic utilitarianism was first proposed and propagandized by Socrates in ancient Greece. It is natural to affirm the esthetic utilitarianism when one affirms the biological utilitarianism. For example, it is said that apples and grapes are beautiful because they are useful to human bodies (upon esthetic utilitarianism); and the functions of

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human taste and beauty sense inspire people to eat more to get nutrition from apples and grapes (according to biological utilitarianism). Two types of utilitarianism support each other. Esthetic utilitarianism has several fatal defects and hence has been criticized by many estheticians, including Plato, Kant, and Hegel. We can say that the history of aesthetics is the history of arguments between utilitarianism and anti-utilitarianism. One of the defects of the utilitarianism is that the above utilitarian explanation does not accord with esthetic experience. For example, according to the viewpoint of "Beauty relies on utility", Socrates obtained results: his big mouth was beautiful because it was useful for eating; a dung basket was beautiful because it was useful. Clearly, the results are against common sense. The second defect of the utilitarianism is that the experience tells us that beauty sense comes from intuition. It does not create beauty sense, but diminishes beauty sense, to consider the utility of an object. For example, a young man with his own wishful thinking falls in love with a girl. He can perceive beauty sense when he sees her. But, if he considers whether she is useful to him or whether she will bring happiness to him, he will be satisfied with imagination or suffer disappointment. Regardless, this consideration will not increase beauty sense, but only diminish beauty sense.

It is very difficult to remedy these two defects at the same time. To remedy the first defect, we can explain in this way: being useful only means being useful to the onlooker; an object is beautiful only because it is useful to the onlooker. Socrates' big mouth was not beautiful because it was useful only to himself rather than to onlookers. The dung basket was not beautiful because it was useful only to its user rather than to onlookers.

However, it will be more difficult to make up the second defect after emphasizing utility to appreciators since the object appreciated generally is not useful to the appreciator. For example, other's homestead from a vagrant's view is beautiful; yet, the vagrant cannot regale on the utility.

For this reason, utilitarianism was developed into the social utilitarianism by Russian esthetician Nikolai Chernyshevsky (1828-1889) and others to make up the second defect of the utilitarianism. For example, Chernyshevsky said: "I appreciate another's farmland without thinking whether it is mine and whether I can get money from it; yet I cannot help thinking: The corn grows so well! How much happiness will it bring to the people?"

Estheticians in China ever universally accepted this viewpoint. However, with understanding more western aesthetics and analyzing

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problems with aesthetics more carefully, the estheticians in China gradually gave up the social utilitarianism.

The reason is that the feeling attained when one realizes that the corn brings happiness to people is actually not beauty sense, but only a glad feeling, which is a pleasant feeling generated by rational cognition. As a representative, Chinese esthetician, Li Zehou, changed his viewpoint from the social utilitarianism into the practice-affirming theory, which does not explain beauty sense with utility any longer, but with some spiritual victory. According to this viewpoint, when humankind successfully reconstructs and conquers nature, it will see itself intrinsic power from objects and hence obtain a pleasant feeling — a glad feeling. As to how to explain the intuitional and innate properties of beauty sense, Li Zehou proposed the deposition theory, by which, through historical deposition, the satisfaction from the successes of practices in human history was transferred into beauty sense, or say, cognitive pleasant feeling was transferred into intuitional beauty sense.

In my viewpoint, it contradicts biological conclusion to affirm that the glad feeling from the social practices in human history was deposited into esthetic mentality because genetics tells us that the acquired characteristics coming from habit cannot be inherited.

However, children innately have beauty sense without any education. Where is the way for the deposition? On the other hand, the gladness from seeing success is actually a cognitive pleasant feeling, which is essentially different from beauty sense. There is no evidence to show that the glad feeling can become a beauty sense.

Most rationalists at the very start all agreed that beauty was related to utility, and the utility was related to human subjective cognition. However, subjective cognition is not helpful in producing beauty sense. In appreciating beauty, glad feeling and despondent feeling can only diminish beauty sense, such as when a vagrant views another's a cozy homestead. So, many rationalists turned to seek cognitive satisfaction or spiritual victory, such as the satisfaction when one saw himself intrinsic power or when the object subjectively accorded with his purpose (they still explained beauty sense by a glad feeling). Yet these explanations can only make the problem more mysterious and actually resolve nothing. This is why aesthetics puzzled us so much.

### **3. The Unforgettable Time**

I clearly remember the scene when I realized the breakthrough in thinking the cause of beauty sense. On a day in 1981, I walked slowly on the road from the classroom to the eatery for lunch. I lowered my head in deep meditation. My thinking was suddenly enlightened when I approached the eatery, although the noise from bowls, spoons, and

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chopsticks was very aloud. I ask myself: "Why do we use satisfaction, physical or mental satisfaction, to explain the cause of beauty sense? Why is it unable to explain the cause of beauty sense by dissatisfaction itself?" Someone treks in a desert, I reasoned, can perceive a strong beauty sense from oasis and spring because of his great thirst. It was the cause of beauty sense that he desired to approach the oasis and spring (it is another matter whether he can reach them, and the feeling from considering the possibility of reaching them is another kind of feeling—a glad feeling or despondent feeling). Also, a young man with his own wishful thinking, falling in love with a neighboring girl, can perceive a strong beauty sense when he watches her without any consideration or imagination. His desire to approach before is just the cause of his beauty sense. From the viewpoint of cybernetics, beauty sense is only a positive feedback signal, which stimulates the man to approach objects. The intention of a feedback signal lies in the difference between ideal and reality. So, the more unsatisfied instead of satisfied the man is with the object, the stronger the beauty sense will be. If the man is really satisfied with the object without desire, then the beauty sense as stimulus will not be as necessary as before and hence will be weaker (I do not deny that a man can innately perceive beauty sense in seeing some forms. However, I believe it is also because of the sake of human's need in history).

Actually, human thinking has been following a quotidian doctrine "satisfaction generates a pleasant feeling." Without finding physical or mental satisfaction when beauty sense is perceived, philosophers then were disappointed and hence explained the cause of beauty sense with the formal beauty itself or with "subjective accordance with a human purpose," as did by Kant; or explained with some spiritual victory, as did by Li Zehou as the representative of the practice-theoretical estheticians. Yet, the mystery of beauty sense rests with facts that 1) The beauty sense is a sensual, pleasant feeling and related to human need, emotion, and desire, and hence related to the earlier cognition about objects (later, I shall explain that the other pleasant and unpleasant feelings are also related to human need, emotion, desire, and the earlier cognition). 2) There is no satisfaction generated when the beauty sense is perceived if we do not consider seeing or hearing itself as satisfaction. It is my great discovery that dissatisfaction is the cause of beauty sense. Before long, I extended my research from beauty sense to general need and obtained the more general rule of need evolution: Paths become purposes.

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I was anxious to declare my great discovery and to write my life's first article, "Beauty and Natural Selection." I began with

"Satisfaction is the necessary condition of pleasant feeling (for example, I feel pleasant because I am eating an apple; I am happy because I succeeded or imagined to have succeeded). This quotidian causality like  $1+1=2$  is so ineradicable that no one explores its inevitability. It seems that the inevitability rests with the phenomenon itself. Almost all estheticians in all ages based their esthetic theories on this doctrine without any doubt. The utilitarianism accepts this doctrine in saying that the cause of beauty is a utility that satisfies us. The anti-utilitarianism also accepts this doctrine in saying that beauty has nothing to do with utility because beauty sense is perceived without any satisfaction. However, I doubt this doctrine now!"

The article introduced my above discovery and described the synergic evolution of flowers and fruits with animals' functions of pleasant feeling. I still keep the mimeographed copy of the article now. My classmate Diao Yuzhang gave me great help. It may be said that he is the first supporter of my academic researches. He and I alternatively lettered for the article. He found a place where we could do mimeographs. I remember that when we were copying, someone came seemingly to see if we were copying counteractive flyers.

I mailed the article to two journals for publication, but without any response. It is understandable to get this result. In those ages, the practice deposition theory and the labor creation theory of aesthetics were so popular that no one could accept my viewpoint that animals can also perceive beauty sense. About my viewpoint, that beauty sense rests with the relationship of needs, Professor Zhao Yuzhuo of Shandong Arts Institution gave me a pertinent opinion:

"Your theory can simply explain well beauty sense and its differentia between different people with different needs. The problem is also here. It will greatly decrease the noble-minded property of beauty sense to relate physical need with beauty sense, and hence the theory is difficult to be accepted by most scholars." Yes! It is noble for a man to produce pleasant feeling, beauty feeling, in seeing that the intrinsic power of humankind was approved. Yet, according to my theory, beauty appreciation cannot be so noble because it is related to physical needs. However, I have to say that we cannot do scientific research with our own wishful thinking. The theory of natural selection reveals the cruelty of biological evolution and affirms that humankind was evolving from the ape, which could not be accepted by most people in the very beginning. It is the requirement of carrying out the principle of natural selection and biological utilitarianism to relate human needs



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with beauty. It also accords with esthetic experience to do so. I believe that the obstacle will be eliminated with people have a better understanding of science.

Also, some people criticize my viewpoint that need determines beauty sense because they do not attend that the need exists before appreciating beauty. I affirm that beauty sense comes from intuition, and any physical or mental satisfaction will eliminate beauty sense as well as many anti-utilitarians.

#### **4. Changing Battlefields**

After graduating from the university, I continue the part-time researches of aesthetics and need theory with infatuation. Before long, I established the theory: "Paths become purposes" about the evolution of need, which also includes the theory on the origin of beauty sense, and wrote many articles that could not be published. Nevertheless, from 1983, I gradually delved into new researching areas. I first turned to the mathematical and philosophical problems of color vision, and then to the generalized information theory, and later the portfolio theory.

In 1983, trying to mix myself in the procession of normal philosophers, I passed the examination with excellent grades for master's graduate students with major natural dialectic and was almost accepted by a famous university in Beijing. However, because of my ineffable fault, the university canceled my entrance (and gave up the recruitment for this major that year) according to the request from the unit I was working for. So, I was doomed to be a forest outlaw in academic society and to endure transnormal hardship. I swore that I must open the gate of philosophy with power someday. My power is more knowledge of natural science.

About in 1984, I visited Dalian Natural Museum, where the explanation about peacocks caught my attention. There was a statement "what the peacock mostly likes to eat are bacca-like fruits" in the explanation. I thought my guess that need determines beauty sense could also be corroborated by the animal kingdom. For example, the peacock's hobby of eating bacca-like fruits produced their corresponding function of beauty sense, and then the male's appearance with a similar form to the bacca would cause the female peacocks' beauty sense and hence win more female's favor and result in more offsprings.

After seeing the explanation about peacocks, I realized that Marx's principle of historical materialism: "social being determines social consciousness and social consciousness reacts on social being", could also be extended to the biological field.

In 1987, *Nature Information* published my article, "Trying to resolve the problem about fragrance, sweetness, and beauty left by

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Darwin” 【4】 after being reviewed by Professor Wang Shenli. In succession, the Journal of Changsha University published my article “On Beauty as Feedback Signal to Spirit up Love Emotion” 【5】. Since 1985, I published many articles on “Potential Science”, “Dynamics of Psychology”, “ACTA OPTIC SINICA”, “Dynamics of Philosophy”, “J. of China Institute of Communications”, International Journal of General System and so on, and published two monographs “Generalized Information Theory” and “The Entropy Theory of Portfolio and Analyses of Risk Control of Stocks and Futures” 【6-16】 (see my personal website <http://survivor99.com/lcg>).

I remember the lines in Rabindranath Tagore’s (1861-1941) poem “Two Acres of Land”: “I met countless surprising luxury and beautiful scene; yet what I cannot forget all the time is the two acres of land.” I have a similar mood. I was in and out of many different battlefields, including theoretical and non-theoretical fields. For livelihood, I also fought in stock markets and futures markets with excellent performance, which was much beyond my initial expectation. Yet, what I mostly esteem is my earliest research on aesthetics, biology, and philosophy because they are related to human purpose and significance, and can increase the happiness of humankind.

Recently, on occasion, I saw Liu, Xiaochun’s monograph “From Animals’ Pleasant Feeling to Human Beauty sense” 【17】, which stirred my long-cherished wish to go back to the esthetic battlefield. Combining biology and aesthetics, Liu’s book discusses the esthetic phenomenon of animals and explains that human esthetic mind was evolving from animals’ functions of visual and acoustical pleasant feeling, and possesses the significance of survival. This viewpoint is very identical to mine. Yet, the difference is that his book draws more attention to “What is it”, instead of my attention to “Why is it so”. His book finally goes back to the standpoint of the practice aesthetics and affirms that the labor creates the human esthetic mind, and even unwillingly declare or does not dare to declare that the animal’s visual pleasant feeling is beauty sense, and says nothing of relating beauty sense with individual needs to establish the detailed control model of causality as I did. However, I felt that there had been some people who moved from side to side of the exit of the esthetic maze. From the reaction on the Internet, I can see this book is welcome, which reveals that the cultural environment in China has improved, and more and more people are accepting the scientific thought. About biology and aesthetics, I decided not to keep silent any longer. So, I wrote this book. When I searched for the pictures for explaining animals’ esthetic phenomena, I was surprised to find that the feather with a spherical

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form of the peacock is absolutely not the only phenomenon. In addition to the figure of bacca, we could also see the figures of rice, wheat, pine, water wave, spiral shell, and even clam on birds' feathers. Those figures all reflect the need for food of corresponding birds. I believe that if I have enough time, I will be able to find more evidence for explaining that beauty sense reflects need — the rule of animals' appreciating beauty.

Readers can find that in comparison to popular esthetic and philosophical works, this book does its best to avoid vague words and to envisage various problems. I think vague language comes from vague thought to scientific or philosophic works instead of diplomatic documents.

Readers may also find that this book presents many extreme viewpoints that look very contradictory to most people. For example, the book extends the principle of the survival of the fittest in biology to the human esthetic phenomenon and also carries the viewpoint of the historical materialism through the biological field. The book affirms that beauty sense is a sensual, pleasant feeling as sensualism does, and also affirms that beauty sense is related to volition and desire as voluntarism does, and also affirms that beauty sense is finally related to material requirements as materialism does. The book affirms that beauty sense is related to utility, and also admits that beauty sense is generated without necessarily any satisfaction. It admits that there existed an imbalance between the development of the economy and the development of literature and arts, and also admits that arts and literature reflected the economic foundation. It approves the principle of the survival of the fittest, and also approves man's purpose — pleasant feeling and happiness. It accepts that sensations are only symbols and are dissimilar to material properties, and also accepts the basic viewpoint of the theory of reflection.

The book proves that these contradictions do not really exist. If we change our habit of thinking, such as abandon the doctrine

“satisfaction produces pleasant feeling”, give up the factitious limit between mankind and animal kingdom and view the nature from the standpoint of historical materialism, dismiss the opinion that the same language is based on the same sensations... then we shall see a very harmonious world.

After finishing this book, I wrote another book: “Mystery of Color Vision and Fundamental Question in Philosophy”. These two books respectively involve motivational relationships and cognitive relationships. The two books with different contents can complement each other. It will help the readers roundly understand my viewpoints to read both of them.

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If my effort is helpful for readers to understand this world and life' s happiness, then I will be significantly gratified[\[2\]](#).

Lu, Chenguang

Oct. 28, 2002