A Tentative Theory of Primitive Kansei: Social Skills in Ancient Human Society

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Abstract: In this paper, a tentative theory that explains how human beings have acquired primitive Kansei as an essential intellectual ability to survive in severe conditions so that having social ability becomes evolutionary selective pressure is proposed. In the remote past, perhaps the Paleolithic age or later, Kansei ability was part of social ability that was indispensable for surviving in human society. Kansei ability enabled human beings to perceive, understand, estimate, and manipulate the influence of tangible and intangible entities; this is beneficial for the mental state of human beings. In this paper, this social ability is referred to as primitive Kansei. It was very important in ancient human society so as to secure a socially advantageous position, acquire more spouses, and leave descendants. The role of Kansei seems to have changed significantly since ancient times.

Keywords: Selection pressure, Evolution, Theory of mind, Primitive Kansei, Social ability

1. INTRODUCTION

Why do human beings have Kansei? In this paper, a possible answer to this question is proposed. It is a very important question and a research theme worthy of discussion. This may be regarded as the ultimate research topic in Kansei studies. However, to date, there is no widely recognized interpretation or theory on this question.

All the abilities with which human beings have been equipped are necessary for living. For example, human beings have the ability of language usage so as to convey information and their intentions to other people accurately. It is believed that Neanderthals who failed to acquire language usage abilities were culled in the process of evolution in contrast to Homo sapiens who succeeded in acquiring language usage abilities and have accordingly, survived the process of evolution [1–3]. In other words, having the ability to employ language was part of the selection pressure that encouraged human evolution. It is believed that all the intellectual abilities of human beings were acquired because they were indispensable for surviving such evolutionary selection pressures.

Was Kansei ability part of the selection pressure that influenced the chances of survival in the long history of human evolution? The author is of the opinion that the response to this question is yes and moreover, wishes to propose a tentative theory that Kansei ability was crucial for survival in ancient human society. This theory may appear to be very strange when one considers the role of Kansei in modern human society. It is a well-known fact the Kansei ability makes daily life richer and more varied, both internally and materially. For example, by acquiring Kansei ability, one can feel beautiful when looking at flowers, impressed when listening to music, and able to buy cute looking clothes for children. It may be hard to believe the proposed theory that postulates having Kansei ability influenced selective pressure and promoted the evolution of human beings.

The tentative theory proposed in this paper is outlined as follows: In the remote past, perhaps the Paleolithic age or later, Kansei ability was part of social ability that was indispensable for survival in human society. Such social ability involved perceiving understanding, estimating and manipulating the influence of tangible and intangible entities that are beneficial for the mental state of humans. Social ability was very important in society in order to secure a socially advantageous position, acquire more spouses, and leave descendants. In modern society, the social aspect of Kansei has been forgotten and only the psychological aspects related to impressions have been highlighted. Thus, the role of Kansei from ancient times to modern times seems to have changed significantly.

The social aspect of Kansei is referred to as primitive Kansei in this paper. Furthermore, primitive Kansei is discussed in contrast to modern Kansei. In accordance
with the proposed method, the role and importance of primitive Kansei and the reason primitive Kansei has been deeply related to the selection pressure in human evolution is also discussed.

This paper is based on a Japanese article published in the *Journal of Japanese Society of Kansei Engineering* [4] that was written by the author.

2. SENSING OF HUMAN EMOTION

Changizi et al. (2006) [5] proposed an interesting theory that human color vision evolved from dichromatic color vision to trichromatic color vision because of acquiring the ability to sense a slight change in somebody’s face color. Compared with dichromatic color vision, trichromatic color vision has outstanding ecological merit. It is thought that trichromatic color vision functioned as selective pressure in the process of evolution and subsequently, human color vision evolved from dichromatic color vision to trichromatic color vision. In fact, many mammals have dichromatic color vision. However, primates including humans and old world monkeys (catarrhines) have been known to have acquired trichromatic color vision during the course of evolution approximately 30 million years ago [6]. Changizi et al. (2006) argued that the outstanding merit of trichromatic color vision was the ability to sense a slight change of complexion caused by emotional expression. In addition, Fernandez and Morris (2007) [7] also pointed out that trichromatic color vision played an important role in social communication such as individual identification, observation of health condition, recognition of facial expression, and reproductive behavior. These theories have argued that whether emotional sensing ability was acquired or not was functioned as selection pressure, and human color vision evolved. These arguments are consistent with theories that postulate that human brains developed in their quest to survive and leave offspring among complex social groups.

It is impossible to comprehend how one survived among complex social groups by only sensing other people’s emotions. Changizi et al. (2006) only revealed part of the ability to become socially advantageous and did not suggest the ability needed after emotional sensing.

3. THEORY OF MIND

Since ancient times, human beings have survived by belonging to social groups. Furthermore, it was believed that if social ability was high individuals would have an advantage in social groups. Emotional sensing ability, which was outlined in the previous section, is merely an aspect of social ability.

According to deductive reasoning, the ability to estimate and understand information acquired through emotional sensing is crucial after sensing. The ability to estimate and understand another person’s state of mind is referred to as *theory of mind* [8]. Theory of mind is specifically studied in the field of developmental psychology. Generally, four- and five-year old children are able to answer the false-belief task correctly, and the task is employed to investigate whether children have theory of mind [9]. No study has shown that primates other than humans have succeeded in the false-belief task. In addition, there has been little evidence that non-human primates have theory of mind. This fact suggests that theory of mind is a highly intellectual ability that has only been acquired very recently in the course of human evolution.

Having theory of mind means that one acquires important mental functions of understanding others. Accordingly, one can consider other people’s feelings based on one’s own emotional experience and imagination; in other words, one is able to engage in intellectual activities that are equivalent to mental simulation such as empathy. These abilities are thought to afford human beings the opportunity to be superior to other individuals in a social group and to increase opportunities for survival and procreation.

4. PRIMITIVE KANSEI

By using theory of mind, one can estimate and understand the mental states of other people; however, by itself, one cannot obtain an advantage in social groups. It is necessary to make some action or feedback to others, depending on their mental states (Figure. 1).

For example, the action or feedback may be snatching food by intimidating others, or on the contrary, it may be sharing food. Furthermore, other social actions such as including others in a group, excluding others from a group,
cooperating with others, fighting with others, grooming, and mating, are thought to be based on emotional sensing and the theory of mind. Thereafter, one needs intellectual abilities that can realize feedback control in order to plan strategies to change the mental states of others, act on the strategies, sense the result again, and modify actions to improve social relationships between oneself and others (Figure 1).

In order to plan out a strategy to change the mental state of others to that which is desired, the intellectual abilities of perceiving understanding, estimating, and manipulating the effects of tangible and intangible entities on human mental states are necessary to imagine influences from tangible and intangible entities and also estimate, simulate, and manipulate the effects of tangible and intangible entities on human mental states.

It should be noted that these intellectual abilities differ from the theory of mind. However, a literature search has not revealed an appropriate term, explanation or definition that illustrates such intellectual abilities. Therefore, in relation to the intellectual abilities of perceiving understanding, estimating, and manipulating the effects of tangible and intangible entities on human mental states, it is referred to as primitive Kansei in this paper.

By primitive Kansei, for example, one can plan out a strategy that a delicious food makes another person happy, and giving such a delicious food to another person makes a better social relationship, and accordingly, it increases opportunities for survival and procreation in the social group. Not only tangible objects such as a delicious food, but intangible actions such as grooming, dancing, playing music, and holding ceremonies were also carried out strategically in the social group in accordance with the primitive Kansei.

Sontaku, that is a recent vogue word in Japan and involves reading what someone is implying, are just carried out based on primitive Kansei in a complex social group. This example suggests that primitive Kansei also be found in the minds of modern people.

5. DISCUSSION: VERIFICATION METHODS

In this section, how to verify the proposed tentative theory is illustrated. It is necessary to verify whether the proposed theory is valid or not by employing scientific and reproducible methods. However, it would be difficult to reproduce the evolution of intelligence by using psychological experiments or observations of behavior. In addition, interdisciplinary studies that are not limited to science and engineering such as anthropology sociology, archeology, and philosophy are necessary to discuss the complex theme.

A few verification methods that can be employed are outlined: Firstly, brain activity measurement based on experiments using Magnetic Resonance Imaging (MRI) may be effective to verify this theory. This research method may reveal that the part of the human brain that executes Kansei evaluation has a relationship with the part of the brain that recognizes the effect of tangible and intangible entities for human mental states. Secondly, simulation is another effective method that could be used.
to verify the proposed theory. This could be performed on a computer as an evolutionary game that simulates social communication between individuals with or without a sensing ability of human mental states. These research methods may verify the proposed tentative theory.

6. CONCLUSIONS

The author proposed a tentative theory that human beings acquired primitive Kansei as an essential intellectual ability so as to survive severe situations and in which having social ability becomes an evolutionary selective pressure. Even if there was a development of superior human intelligence in the process of evolution, primitive Kansei as the intellectual ability would not have developed if human beings were not social beings. Primitive Kansei has evolved further with the times, and has been acquired as a human intellectual ability that has adapted to modern society and subsequently, developed into Kansei as it is known currently.

Primitive Kansei is only an aspect of the concept generally known as Kansei. Currently, Kansei seems to have lost its meaning as a social ability that has played an important role in the course of human evolution. On the contrary, social abilities such as reading the atmosphere of situations, and doing sontaku are generally not referred to as Kansei. These facts suggest that primitive Kansei has changed its role and meaning during a very long period of human evolution. Presently, Kansei makes our daily lives rich and colorful but originally it was indispensable for surviving as a social being in the course of human evolution. Consequently, human beings acquired it. Hence, the question posed at the beginning of the paper has been answered.

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