

Chaos Theoretical Explanations of Conscious Control or Subconscious Control: Shifts to Fixed-Type or Chaotic-Type Thinking

Hideaki Yanagisawa

Calsonic Kansei Corporation, 132 Shinnakano, Ora, Gunma, 370-0612, Japan

Email: science2001007@gmail.com

Abstract

Freud's psychoanalytical theory states that the ratio of conscious, subconscious and unconscious is 10%, 50–60% and 30–40% like an iceberg. Because the existence of information is unclear in the psychological Unconscious, it must be distinguished with information. The psychological Unconscious with information can sometime be used by a living human's brain. Therefore, it must be included in the mathematical “subconscious.” However, the psychological Unconscious such as brain death is has no information because it can never be used by the human's brain in contemporary medicine. Therefore, it must be categorized not as the mathematical “subconscious” but as the mathematical “unconscious.” The mathematical “subconscious” or mathematical “unconscious” can be confirmed to change with the situation such as when returning to consciousness.

The mathematical “unconscious” cannot be considered as inside chaos theory at the moment because of impossible solutions. Since time's arrow is explained using chaos theory, all phenomena with a time course obey chaos theory. Therefore, the conscious and the mathematical “subconscious” with time course can be explained with it. The conscious and the mathematical “subconscious” are equivalent to a fixed solution and a chaotic solution with chaos theory. Examples of shifting to chaotic-type thinking are explained using Japanese education in childhood and nursing at university. Examples of shifting to fixed-type thinking, are provided in the process of counseling and education in Japanese medical university. Shifting to the conscious or mathematical “subconscious” can almost be controlled with environmental setting, chaos-theoretically.

Keywords: subconscious, unconscious, chaos theory, entropy, fixed state, chaotic state, environment

Introduction

Freud reported that the ratio of conscious, subconscious and unconscious is 10%, 50–60% and 30–40% like an iceberg [1-5].

In this report, a classification between the conscious, the psychological subconscious, and the psychological unconscious is explained mathematically. Since the existence of information in the psychological Unconscious is unclear, information cannot be considered as inside chaos theory. And since the psychological subconscious and most of the psychological Unconscious with information are defined as the mathematical “subconscious,” each conscious and mathematical “subconscious” is equivalent to a fixed solution and chaotic solution in chaos theory. Examples of shifting to chaotic-type thinking are provided via Japanese education in childhood and nursing university. Examples of shifting to fixed-type thinking were provided via the process of counseling and education in Japanese medical university.

Method

Explanation of Chaos Theory

The section “Explanation of Chaos Theory” was reported [6, 7]. In this report, some necessary items are summarized.

Relation between continuous covariation and chaos theory

Three or more variables and continuous covariation are required conditions of a chaos equation [7, 8]. A representative chaos equation is given as

$$Y(n + 1) = p[1 - Y(n)]Y(n) \quad (1)$$

A logistic map of Equation (1) is shown in Figure 1 [6, 7].

The vertical axis is $Y(n)$, and the horizontal axis is “ p .” The border point between convergence and a chaotic state is called the “Feigenbaum point” [9] in part F of Figure 1. According to “ p ” that changes from 3 to 3.56995 (Feigenbaum point), the number of fixed points in Equation (1) changes to 1 (Part A), 2 (Part B), and 4 (Part C). Fixed points are “linear” in the definition of chaos theory. When “ p ” is less than the Feigenbaum point, the answer converges. When “ p ” is greater than the Feigenbaum point, the answers is localized

(Part D) and results in a proliferating (Part E) chaotic state. Fixed and chaotic solutions are found in all chaos equations. These are continuous, and there is a bifurcation point between them.

In Figure 2, the schema near the Feigenbaum point is depicted in parts R, S, and T; the converging fixed (part R), localized (part S), and proliferating chaotic (part T) states are illustrated. The Feigenbaum point is shown as the dotted arrow F. Since continuous covariation and three or more variables exist between all phenomena including matters and mind, it can be seen that reality obeys chaos theory.

Relation between entropy change and chaos theory

Entropy decreases when there is a change of direction from a chaotic state to a fixed state [7, 10-13]. This is depicted as arrow G in Figure 2. Entropy increases in the opposite direction. It is depicted as arrow H.

Mathematical classification: Relationship between inside chaos theory and outside chaos theory

There are possible and impossible solutions. There are infinite or no solutions in impossible solutions, whereas possible solutions comprise can be complete and fixed (part Q), incomplete and fixed (part R), chaotic (parts S and T), and random (part U) states in Figure 2. In chaos theory, a fixed state can change to a chaotic state according to the variables in an equation. This means that the state of each solution can change as the environment changes. Therefore, a fixed state is incomplete in chaos theory. However, mathematics and past facts never change in response to environmental change; they remain in a complete fixed state. The extreme left side of part R is a complete fixed state (part Q) and lies outside of chaos theory. Both incomplete and fixed (part R) and chaotic (part S and T) states are amenable to chaos theory. The extreme right-hand side of part T in Figure 2 is a random state (part U) and is not amenable to chaos theory. Since chaos equation is mathematics, it is a complete fixed state. However, incomplete fixed and chaotic states can be proved with chaos theoretic equations, which are a complete fixed state [7, 10-13].

Relationship between variable change and situation control

According to a variable change, each solution is in a fixed or chaotic state in all chaos equations. The number of solutions change in a fixed state, while the range of solutions changes in a chaotic state. In chaos equations, there is always a variable such that a specific situation is decided, such as the variable “p” of Equation (1). Therefore, control of a situation is equal to controlling the variable of the specific variable in them. Since reality including matter and mind always has a continuous covariant relation to others, they obey chaos theory.

The arrow of time can also be explained with chaos theory [7]. Since a time course exists in human thinking, emotion, consciousness, and so on, these can be explained with chaos theory.

Relationship between environmental change and situation control

The change of variable “p” of Equation (1) is equivalent to the environment in reality. The fixed state is equivalent to almost unchanged contents with time course in reality such as buildings, bridges, and so on. The chaotic state is equivalent to drastically changing contents with a time course such as the weather, the economy, the mind, and so on. Therefore, situation control is equal to environmental change in reality. For example, water becomes ice, the latter being a fixed state (Part R) in Figure 2 if it is cooled to below freezing point. If water is heated over boiling point, it becomes gas, this being the proliferating chaotic state (Part T) in Figure 2. Alike, the human mind and consciousness changes with environmental change. Therefore, they can be controlled with environmental change.

Psychological Classification of the Conscious: Relationship between the Conscious, the Psychological Subconscious, and the Psychological Unconscious

There is a classification between the conscious, the subconscious and the unconscious in present psychology [3-5]. These are shown in the upper stage of Figure 3. Consciousness is awareness of the “self.” The Psychological subconscious is sometimes an adjective, where it refers to thoughts and processes in the mind of which a person is not directly aware. Desires, motivations, and fears can often occur at the level of the psychological subconscious. The psychological unconscious as an adjective means being passed out, a condition often brought about through use of force. The psychological unconscious is sometimes also used synonymously with sleep. Here the psychological subconscious and the psychological Unconscious are compared with the mathematical “subconscious” and the mathematical “unconscious.” The conscious maintains the same position in both psychology and mathematics. The conscious, the psychological subconscious, and the psychological unconscious are all explained as information in a personal computer.

Conscious is equivalent to the information presented on the display when turning on the power. The mathematical “subconscious” is equivalent to the information in the hard disk that is present when turning on the power. The psychological Unconscious is equivalent to the information in the personal computer when the power is off. When turning on the power, the information in the hard disk can be presented on the display with the changing situation. However, the information available when turning off the power cannot be presented on the display until turning on the power. This is equivalent to the psychological Unconscious.

Until turning on the power, we cannot know of the existence of information.

If there is some information, it is inside possible solutions. It is included in the conscious

and the mathematical “subconscious.” On the other hand, when there is no information while turning on the power, it is equivalent to a mathematical impossible solution or a mathematical “unconscious.” Therefore, the mathematical “unconscious” is a completely different thing to the conscious and the mathematical “subconscious.” When there is some information, these can be presented as the parts R, S, and T in Figure 2. However, when there is no information, this cannot be presented in Figure 2. For example, the solution of Equation (2) is infinite, whereas there is no solution for Equation (3):

$$0x = 0 \quad (2)$$

$$x = \frac{1}{0} \quad (3)$$

These are impossible solutions [7]. Here, the psychological Unconscious in “conscious versus unconscious volition” is used as a part of the existing consciousness. However, most of the psychological Unconscious must be included in the mathematical “subconscious” according to the above explanation. A part of the psychological Unconscious is that whether information exists can never be confirmed and it must be classed as the mathematical “unconscious” without information. The existence of information can be confirmed with a change of situation such as a returning consciousness. The “subconscious” and “unconscious” in the mathematical conscious are shown in the under stage of Figure 3.

Relationship between the conscious, the mathematical “subconscious,” and each state in chaos theory

The conscious indicates a human that is aware without being in a chaotic state. Therefore, it is equivalent to the incomplete fixed state (Part R) in Figure 2. It is also equivalent to the mathematical “subconscious” that humans cannot be aware within a chaotic state. Therefore, it is equivalent to the chaotic state (Part S or T) in Figure 2. For example, “love at first sight” is equivalent to an emotion in a proliferating chaotic state because the reasons are not available to awareness. When the loving points of the partner are unknown, they are equivalent to the fixed state.

Examples of control of the conscious

Chaos-theoretically, it is clear that the conscious and the mathematical “subconscious” can be controlled with environmental change.

Control to chaotic-type thinking

Control of chaotic-type thinking is equal to “inducing mathematical subconscious.” This is

equivalent to increasing entropy. Entropy increases except for evolution and thinking in living creatures. Therefore, human thinking becomes a chaotic type if nothing makes an effort.

1) Conscious control in Japanese children

The sentence “always become friends with everyone!” is taught to most Japanese children. Everyone has a different personality. If an individual has a fixed opinion, he/she cannot adjust to everyone. Therefore, the sentence that the believing individual must not have the fixed solution and personality of specification. Japanese children are induced to chaotic-type thinking, obeying the mathematical subconscious. Unless the chaotic-type thinking changes to the conscious, the sentence lurks in the mathematical “subconscious.” Therefore, they can be controlled to conform to the mathematical “subconscious” by education.

2) Conscious Control in Japanese nurses

Japanese education to Public Health Nurses, Midwives, and Nurses includes the statement “No person except a medical practitioner shall engage in medical practice” as stated in Article 17 of the Medical Practitioners’ Act in Japan” [7, 12, 13]. The work of nurses is described in Article 5 as involving the duty to “assist in medical care” in the Act on Public Health Nurses, Midwives, and Nurses. There is no law separating dependent work and independent work in Japan in fields other than medical practice. Doctor's thinking changes from the chaotic type to the fixed type with rearranging thinking for diagnosis. However, this is not required in Japanese nurses. Since they obey any doctor's instructions, this is similar to the statement: “always become friends with everyone.” And in university and society, “reception and synesthesia” are taught to Japanese nurses as an absolute law. Therefore, Japanese nurses are induced to dependent-type thinking. They demonstrate a low sense of responsibility to objective standards, such as the law, costs, and science. Most objective standards are not important in chaotic-type thinking. In this chaotic type of subjective thinking, communication with a target such as an abused child or an infected person becomes a secondary concern. Inducing the chaotic type is equal to “controlling the mathematical subconscious.”

Control of fixed-type thinking

1) Conscious Control in the counseling process

It has been reported that the counseling process is equal to the process of solving scientific problems, in terms of chaos theory [7, 14]. Both can be explained as processes that involve the rearranging of thinking to decrease entropy [7, 10-13]. During counseling, a counselor attends to the client's thinking without reference to any objective standards. A counselor's thinking must be of the chaotic type because the focus of their thinking is the client's thinking.

The counselor does not correct the client's ignorance of objective standards. Counseling has involved use of chaotic-type thinking until now. However, if the client's expressions are merely returned by the counselor, the counselor's thinking does not change to the fixed type of thinking. This amounts to merely parroting the client's expressions. The counseling will fail because the client's thinking remains confused. During counseling, the counselor's primary skill involves listening closely using reception and synesthesia.

Next, the counselor confirms incomprehensible points by putting himself in the client's shoes. This confirmation process is essential to counseling. It is equal to the process of discovering a new theory or equation in science. The change from the client's mathematical "subconscious" to his/her conscious can be effected only by the counselor using fixed-type thinking. Conversely, the counselor using chaotic-type thinking need never clarify incomprehensible points [7, 12-14]. In limited places, the client's thinking is controlled by the counselor, changing from the chaotic type to the fixed type.

2) *Conscious Control in education of medical doctors*

The work of medical doctor is described in Article 17 of the Medical Practitioners' Act in Japan [7, 12, 13]. Therefore, they must always consider a confirmed diagnosis.

It is never allowable for a medical doctor to conduct an irresponsible diagnosis. A confirmed diagnosis can be searched for by a doctor with fixed-type thinking. Therefore, thinking in medical doctors is shifting to the fixed type with medical education. Humans with fixed-type thinking are objective and have a strong sense of responsibility. It is equal to "controlling the conscious." Two measures were used in this study,

Results

The conscious, the psychological subconscious, and the psychological Unconscious have been reclassified as the Conscious, the "subconscious" and the "unconscious" in mathematics. Most of the time, the psychological Unconscious with information is included in the mathematical "subconscious." The psychological Unconscious without information is classified as the mathematical "unconscious." The conscious and the mathematical "subconscious" are equivalent to the fixed and the chaotic state in chaos theory. Control of the conscious can be explained with counseling and education of medical doctors, mathematically. Control of the mathematical "subconscious" can be explained with education to children and Japanese nurses, mathematically.

Discussion

There are fixed states and chaotic states in chaos theory. And entropy decreases with

directional change from a chaotic state to a fixed state. Entropy increases with directional change from a fixed state to a chaotic state. Therefore, a human's thinking can be explained with two states and two direction changes, chaos-theoretically.

Female and male brains were explained with a difference between two states [7, 11]. Two kinds of autism were explained with this same difference [7]. “God” and evolution in living creatures was explained with decreasing entropy [7, 10]. And counseling and education of medical doctors can be explained with reference to decreasing entropy. Education of children and Japanese nurses can be explained with reference to increasing entropy. Thus, human thinking can be explained with chaos theory [7]. Time's arrow was explained not with the second law of thermodynamics but chaos theory [7, 11]. And the conscious, the psychological subconscious and most of the psychological Unconscious with information are explained with chaos theory because all phenomena with time course obey chaos theory [7]. A part of the psychological Unconscious without information is outside of chaos theory. Therefore, the conscious, the psychological subconscious, and most of psychological Unconscious control can be explained with chaos theory.

Conclusion

All phenomena involving a time course can be explained with chaos theory. Therefore, the conscious, the psychological subconscious, and most of the psychological Unconscious with time course can be explained with chaos theory. A part of the psychological Unconscious is that the existence of information can never be confirmed and must be classified as the mathematical “unconscious” without information. Therefore, the psychological Unconscious with no information is considered to be outside of chaos theory because of a phenomenon with impossible solutions. Control of the conscious can be explained with counseling and education of medical doctors, mathematically. Control of the mathematical “subconscious” can be explained with respect to the education of children and Japanese nurses, mathematically.

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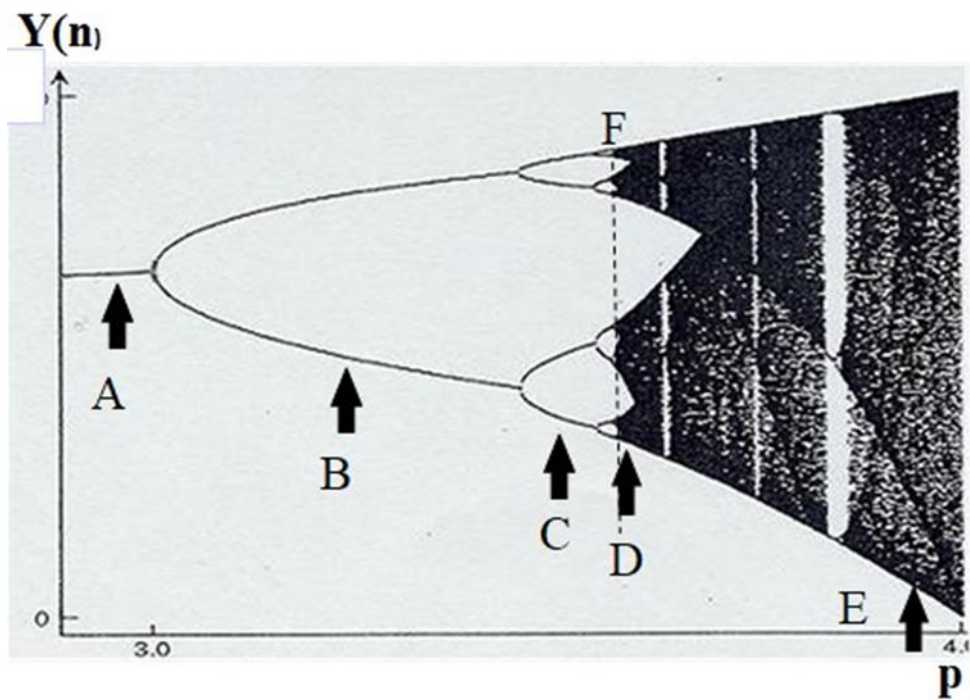


Figure 1. Logistic map of Equation (1).

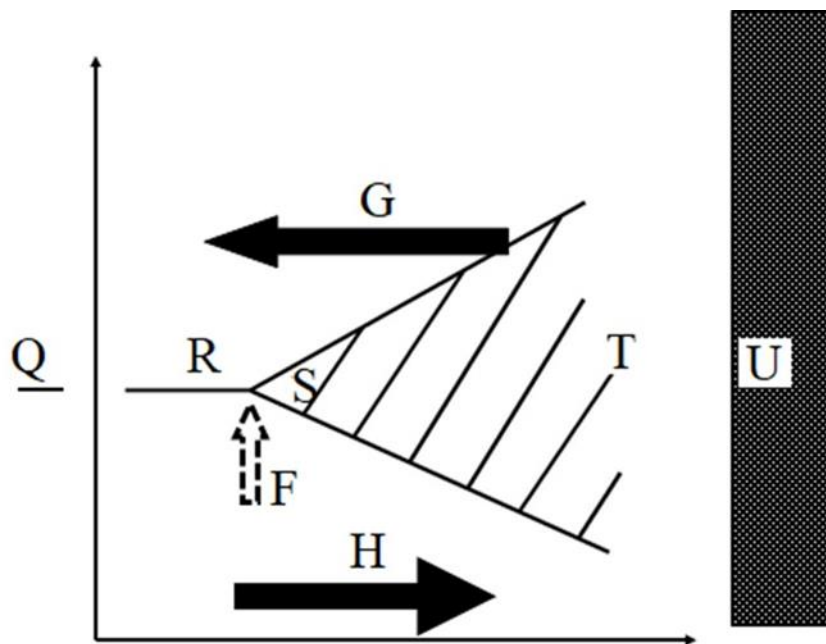


Figure 2. Relationship between inside chaos theory and outside chaos theory.

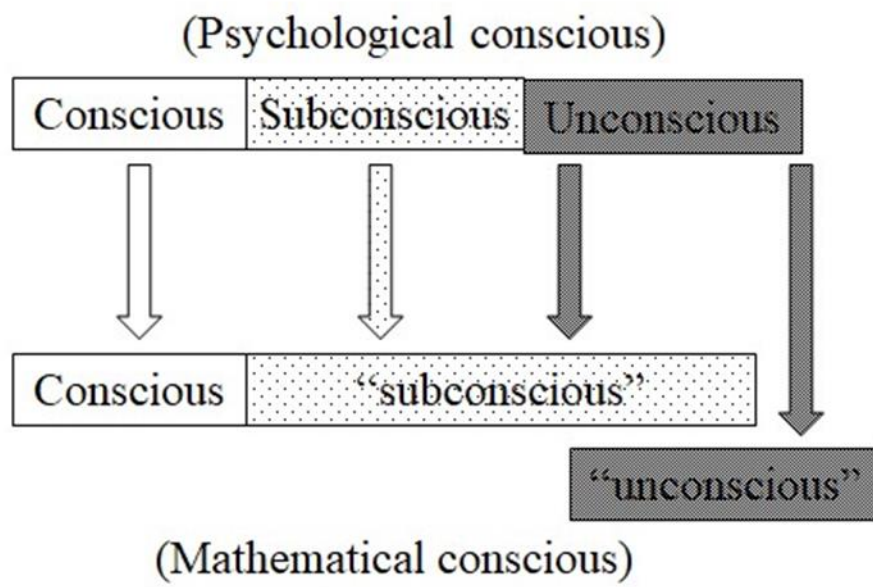


Figure 3. Relationship between psychological conscious and mathematical conscious.