The Posthuman and a Dialectic of Sacrifice

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Abstract

The purpose of this study is to examine the concept of homeostasis, the sustaining of which is importantly aimed by the neural networks of human brain simulated by most artificial intelligences. Through this, we connect the meaning of dialectical movement, which becomes more prominent in the post-human era where life and machinery intersect and overlap with each other, to the Christian theme of 'sacrifice.' Homeostasis itself is the dialectical relationship between life and its outside world. This article shows that the relationship is activated by nothing more than a non-dual double negative dialectic, that is, a Korean way of thinking, and at the same time, it can be connected to the Christian practices of messianic sacrifices. Further, the dialectical nature of messianic sacrifice will provide a clue as to where the humanities should inquire into in the post-human era created by the connection between life and machinery

· Key Words:

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1. Introduction: The Becoming-human of Machine

There are two main ways of defining the posthuman subject. One is the way of defining it as a self that is technologically mediated from the perspective of using technology to change the natural nature of human beings and to overcome their limitations, that is, being able and preferable to enhance human beings. The other emphasizes relational and interdependent subjectivity as positively embracing the end of classical humanism, triggered by science and technology in antihumanistic subjectivist philosophical tradition. In the former, the anthropocentric view of classical humanism has some influence on the definition of posthuman subjects. The latter tries to define the posthuman subject from the post-anthropocentric view of anti-humanism.

As Rosi Bridotti emphasizes, technological mediation is one of the central factors to a new vision of posthuman subjectivity.¹ And perhaps all posthuman discourses, whether focusing on human enhancement or dealing with human subject mainly through post-anthropocentrism, is likely to affirm the importance of technological mediation. What this implies, is that human subjects will be in a whole new situation due to the birth of posthuman subjects through technological mediation. If we regard posthuman as an extension of human enhancement, we will read posthuman from the viewpoint of expansion of the human subject, considering the posthuman subject as an extension of the human *homeostatic* condition. While on the side of treating posthuman as a project of post-anthropocentrism, the posthuman subject will be read as a totally new subject that is not bound by the modern concept of human. Therefore, while the former solves the

¹ Rosi Braidotti, The Posthuman (Maiden, MA: Polity Press, 2013), 90.

relationship between machine and human as only a cultural problem, the latter treats it as a nature-culture continuum.

Despite these differences, both positions will agree to understand the posthuman subject as a relational and interdependent one. However, if the relationship is given normatively to the former, the relationship appears to be a "non-unitary subjectivity"² which takes responsibility for ethical accountability as a shared praxis of the subject itself to the latter.

But the problem is this: even if a relationship appears with multiple names, such as interdependence, interconnection, multitude, otherness, non-unitary subjectivity, nomadicity, becoming, and so on, does not the question about its specific mechanism remain unexplained? In other words, is the relationship bound up with equal reciprocity, or not? If it is a non-equal reciprocity, how could that reciprocity come about?

This short essay attempts to explain this single problem. What I have come up with for this purpose is the present situation of becomingmachine, the heart of technological mediation. Interestingly, it is the becoming-human of machine that is one of the driving bases of posthuman becoming-machine. One of the key reasons why some machines can transcend human beings is the fact that these machines are increasingly mimicking humans and other organisms. In particular, AI (artificial intelligence) is preparing to connect to various natureculture continuum with reference to the mechanism of the human brain. Posthuman nature-culture continuum includes the nature-culture continuum of machine. As a simple example, Deep Neural Network (DNN) of Deep Learning mimics the neural network of the

² Ibid., 93.

human brain and introduces the ReLU (Rectified Linear Unit) function, a base function of signaling system of neurons, into its detailed signaling system.

Therefore, in order to reflect on posthuman subjects born by technological mediation, we still have to look at the human brain-bodyenvironment continuum. Perhaps this is because actual technology is not catching up with the posthuman imagination of technological mediation. In any case, the becoming-human of machine is dominated by an approach to embody the human brain mechanism and apply it to a particular goal (eg, chess or Baduk). On the other hand, the human neurological mechanism itself is closely related to the homeostatic mechanism from autonomic motor system to emotion-feeling system. Moreover, from an evolutionary point of view, maintenance of the homeostatic mechanism is the primary goal of the neurological mechanism. Then, the reflection on the posthuman subject should be based on the human homeostatic mechanism above all. So, the following chapters will examine the concept of neurological homeostasis as a starting point for reflection on the concrete aspects of posthuman relationships.

2. Overview of Homeostasis

The first to use the term *homeostasis* was French physiologist Claude Bernard (1813-1878). He first used the concept of the *internal environment* of the body to pay attention to the stability of the environment and got an insight into the fact that "the internal environment is a necessary condition for a free life."³ This concept was further re-conceptualized in the 1930s by the American physiologist Walter B. Cannon (1871-1945), who used the word to "describe the mechanism that maintains the constancy of the bodily fluid component, body temperature, blood pressure, and other physiological variables within a narrow physiological range."⁴ However, the changing external environment must be premised on the idea that the stability of the internal environment or the maintenance of physiological variables within the body within a certain range. In other words, the concept of *homeostasis* refers to the tendency to keep the internal environment constant in response to external changes, indicating the relationship between the outside and the inside of the body. Eric R. Kandel uses Bernard's concept of internal environment to define and explain *homeostasis* as follows.

The active maintenance of a relatively constant internal environment is called homeostasis. Constancy of the internal environment is the basis of the freedom of action we and other animals enjoy because it partially decouples our physiology from immediate external conditions and greatly extends the range of available habitats.⁵

According to this definition, the *homeostasis* mechanism is maintained by actively separating the inside of the body from its outside. In other words, the fact that the concepts mobilized to explain this mechanism are activity and freedom, gives the impression that *homeostasis* strongly

³ Eric R. Kandel, *Principles of Neural Science*, 5th ed., trans. Bong-Gyun Kang (Seoul: Bum-Moon Education, 2014), 2:1046.

⁴ Ibid.

⁵ Ibid., 1083.

separates the human body from the external environment.

But to maintain the internal environment of the body, the *homeostasis* mechanism "responds sensitively to the changes in the surroundings and adjusts the variables of each time to balance without bias."⁶ *Homeostasis*, then, is a mechanism that constantly connects to the outside to secure an internal environment separate from the outside. It is the property of the *homeostasis* mechanism that separating and connecting are strongly correlated with each other.

In fact, the nature of the *homeostasis* mechanism is precisely the nature of complexity system. Complexity system is a system in which many elements are formed by non-linearly interacting. These systems openly interchange information (or energy) with the outside and dramatically form order at the edge of chaos. The *homeostasis* of life is a representative example of the manifestation of the characteristics of complexity system. It "is possible because life is constantly exchanging information from the surrounding environment."⁷ Thus, even if we understand the *homeostasis* mechanism of life in terms of physical complexity system, it results in the interaction between the inside and the outside of life.

3. Homeostasis and a Dialectic of Sacrifice

Homeostasis embodies self-identity through differences from the outside. It is only through the interplay of the internal and the external of

⁶ Jongwook Kim, "Ecosystem and Dharma-dhātu as Complexity Systems," Chul Hak Sa Sang: A Journal of Philosophical Ideas 44 (2011): 24.

⁷ Mooyoung Choi and Minsoo Kim, "Life in the Viewpoint of Complexity System," in

life, separating and connecting, stability and change, negative feedback and positive feedback, that a certain categorical stability, that is, *homeostasis* is achieved. Then, this stability, this self-identity, is, in fact, only a tentative occasion in the evolutionary process of dynamically changing rather than an invariant *being*. *Homeostasis* is non-entityness (*nihsvabhāva*) and therefore is emptiness ($S\bar{u}nyat\bar{a}$). To emphasize this fact, homeostasis is based on the interdependence of meanings in the theory of Karma (*pratītya-samutpāda*), and therefore, it may be thought that, as long as homeostasis is a general characteristic of the life system, "interdependence is the essence of all ecological relationships."⁸

But this is an over-generalization. The interaction of *homeostasis* serves for one side. Life phenomena are more unilateral than mutual. In other words, the interplay of the internal and the external of life, separating and connecting is wholly related to the way in which the environment contribute to life itself, but not to the way in which life itself contributes to the environment.

The insight of Erwin Schrödinger (1887-1961) that life "feeds on negative entropy"⁹ reveals this fact. Negative entropy means a decrease in entropy, so life is a highly-ordered system that is formed in a direction of decreasing entropy against the second law of thermodynamics. However, the second law of thermodynamics, the law of increasing entropy, is established in a closed system. It means that in a closed system exchanging any energy or information with its surroundings is completely impossible. Therefore, entropy, in an open system where

Quantum · Information · Life (Paju: Hanul Academy, 2015), 423.

⁸ Jongwook Kim, "Ecosystem and Dharma-dhātu," 29.

⁹ Erwin Schrödinger, What is Life?: The Physical Aspect of the Living Cell, trans. Inseok Seo and Sangik Hwang (Seoul: Hanul Publishing, 1992), 111.

exchanging energy or information with its surroundings is possible, may not be increased. Closed systems are systems that do not interact with the outside, while open systems interact with the outside, so entropy can be reduced without applying the second law of thermodynamics in life, a system that interacts with the outside. But it is possible only in a way that causes or accelerates the increase of the entropy of the surroundings interacting with life. The decrease in entropy of one life is linked to the increase in entropy of some others. This is the nature of the situation in which the separating and connecting between the inside and the outside of life or between life and its environment interact with each other.

In other words, the high order of life is at the price of disorder of other beings. The maintenance and growth of one life is at the cost of death and destruction of other beings. This is the meaning of the interaction. To translate this simply into interdependence is an excessive leap. Life phenomena should not be easily generalized by co-prosperity or symbiosis. Rather, the life phenomenon should be seen as based on sacrifice.

Co-prosperity, or symbiosis is an ideology that fits the principle of mutual exchange that supports market fundamentalism, which is the basis of the neo-liberal politico-economic system. How absurd is the idea that the equally exchangeable relationships in the market will create an equitable and reciprocal happiness in society? *Homeostasis*, the constant stability of life does not tell the world of equal exchange of equality. Rather, it informs all the conscious life that maintains itself based on the noble sacrifice of some others about the world that it should reflect itself on.

However, the inside of a changeless stability is a busy world with

boisterous and bustling changes everywhere. To realize *homeostasis*, we learn from failures, seek new ways, and adapt our life system to the changing environment and conditions by overcoming ourselves without ignoring the binary oppositions of internal and external, separating and connecting, negative feedback and positive feedback. Life system is self-transcendent in that it secures its stability based on change, and becomes "excellent operation (*energumen par excellence*)"¹⁰ in that it maintains itself and at the same time transcends itself.

It is faith that Giorgio Agamben explains exactly with the words "excellent operation (*energumen par excellence*)." His reasoning is in reading about Ephesians 3: 7 ($\kappa \alpha \tau \dot{\alpha} \tau \eta \nu \dot{\epsilon} \nu \dot{\epsilon} q \gamma \epsilon \iota \alpha \nu \tau \eta \varsigma \delta \upsilon \nu \dot{\alpha} \mu \epsilon \omega \varsigma \alpha \dot{\nu} \tau \sigma \tilde{\nu}$) and Philippians 3:21 ($\kappa \alpha \tau \dot{\alpha} \tau \eta \nu \dot{\epsilon} \nu \dot{\epsilon} q \gamma \epsilon \iota \alpha \nu \tau \sigma \tilde{\nu} \delta \upsilon \nu \alpha \sigma \theta \alpha \iota \alpha \dot{\nu} \tau \dot{\sigma} \nu$). The term *dynamis* translated into the power of God is a potentiality, and it is latent in the subject of faith as long as it is actualized (*energeia*) by faith. Thus, faith is an actualization of potentiality, and this is a transformation of chronological time into messianic time,¹¹ developing in chronological time, as long as it is connected with a certain messianic salvation. However, messianic time follows "a logic … in which the A / non-A opposition admits a third term which then takes on the form of a double negation: non-non-A,"¹² in that it is the third time that does not belong to both the binary opposition of kairos and chronos. The opposition of time and eternity transcends itself in time so that it leaps to a certain time that is not time nor eternity.

The relationship of *homeostasis* precisely exemplifies messianic time.

¹⁰ Giorgio Agamben, *The Time that Remains: A Commentary on the Letter to the Romans*, trans. Patricia Dailey (Stanford: Stanford University Press, 2005), 90.

¹¹ Ibid., 82.

¹² Ibid., 51.

In other words, it shows a dialectic of double negation that operates in chronological time. Time transcending is time intrinsic. Likewise, changes and transformations intrinsic to time are leading the self-transcendent nature of *homeostasis*. In the relational nature of *homeostasis*, the dialectical movement creates a space of sacrifice. And in this movement, it becomes clear that there is no way for any life to pay back the life-given sacrifices of other beings. Sacrifice could not be compensated and exchanged, but could only be transmitted towards the future in the occasions of changes and transforms.

Reflect on the sacrifice. Then the fact that there is nothing we can do for the myriad victims for us will become evident in the movement of a dialectic of double negation. Do not stop there, but act according to dialectic. In this action, we will be able to appreciate the other beings sacrificed for us and to meditate on life sacrificing ourselves for other beings.

How life resembles the messianic. The cross of the messianic is sacrifice in that it leads to the life of other beings. One sacrifice demands another sacrifice to the beneficiaries of it, and so spreads life to the future. So, the Apostle Paul teaches: "if so be that we suffer with him, that we may be also glorified together" (Romans 8: 17, NIV).

4 Conclusion: Foreboding the Posthuman Era of Dialectical Movements

The deep-running mechanism of artificial intelligence imitates the way the human brain works, but the brain neural network throws itself into maintaining the *homeostasis* of its body. The human phenomena of intelligence and self-consciousness serve for the purpose of actualiz-

ing the life phenomenon of maintenance of *homeostasis* in chronological time in the form of dialectic of double negation. This purpose is the provisional principle that leads to the evolutionary process of life, including being human. The *homeostasis* as a relational nature of life shows that the 'working goal' of life itself overlaps with the 'working way' of life, the *sacrifice*. However, artificial intelligence does not yet have enough built-in neurological mechanisms that closely cooperate with and maintain *homeostatic* mechanisms leading to an emotion-feeling system. Nevertheless, the posthuman era is still coming.

In this post-post-modernist era, this situation reminds us of a recognition problem continuing from modern to post-modern times, without representing either modernity nor post-modernity — a commitment to a dialectical movement of "change and transition in which something is not abandoned or sublated, another is grasped or reached."¹³ Now we are going beyond the modern times of 'human' and post-modern times of 'anti-human,' and entering into the posthuman dialectical movement era, in which humanism and anti-humanism could neither be abandoned nor sublated and another new creation could be grasped and reached.

But this era is not free from the criticism that "cyborg's anti-representational body is just nothing but a reorganization system of the late capitalist new body."¹⁴ More so, as long as there is no proper answer to the question, "What kind of reciprocity does the relationship mean?" This is why we should be more eager to reflect on a messianic sacrifice and act according to the dialectic of double negation than ever before.

¹³ Robert Heiss, What is Dialectic?, trans. Munsoo Hwang (Seoul: Seo Mun Dang, 1996), 55.

¹⁴ Dongjin Seo, "Body without Organs or Organs without Body - Representation of Body and its Crisis," *Literature and Boundaries* 4.1 (2004): 143.

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