

A CONSCIOUSNESS STUDY COMPARING
ROBERT CORRINGTON, YU YOUNG-MO, AND HENRY STAPP

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ABSTRACT

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The purpose of this dissertation is to investigate consciousness by comparing the thoughts of Robert Corrington, Yu Young-mo, and Henry Stapp. The notion of consciousness is so complicated that this dissertation undertakes to explore it by employing two perspectives: consciousness in terms of subjectivity and consciousness in the mind-body problem. Relying on philosophical approaches to consciousness, this dissertation provides a new understanding of consciousness by drawing on dialogues among three thinkers. Interdisciplinary studies on consciousness is conducted since Corrington is a philosopher, Yu Young-mo a theologian, and Stapp a mathematical physicist. Corrington's theories are examined in terms of consciousness by using classical phenomenology since the main topic of phenomenology is consciousness. Yu Young-mo's research on consciousness shows how he as a religion scholar approaches and understands the issue of consciousness. By exploring Stapp's thoughts on the quantum measurement problem, this dissertation takes into consideration quantum physicists' perspective on consciousness. Finally, attending to similarities among three thinkers' understandings of consciousness, this dissertation claims that every entity has something that can be called

consciousness. I contend that consciousness is an essential part of every entity so that it may make connections to other entities. No matter how simply an entity is, the entity has its relations to other entities by its consciousness. My argument is based on the four issues of consciousness: the possibility of the non-physical, the necessity of subjectivity, the fundamental structure of consciousness, and the significance of observation. The argument of this dissertation is a statement of possibility because of two conditions, the indemonstrability of the non-physical and the necessity of subjectivity. Assuming that consciousness is related to the non-physical, there is currently no way to prove the existence of consciousness because the non-physical can be neither measured nor observed. Also, if we take consciousness as subjectivity, we cannot notice from a third-person perspective if a certain entity has consciousness. The statement that every entity has consciousness is a statement of possibility, but Corrington, Yu Young-mo, and Stapp raise its probability of truth.

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1. INTRODUCTION

Why Consciousness?

We believe that we have consciousness and that consciousness makes humans human. To investigate consciousness is to look into the most important core of the human being. Bernard Baars writes that “all of written human history people have been fascinated by consciousness: in some sense it is one of the original fascinations of human thought.”¹ Also, it is generally accepted that our consciousness is a unique characteristic of the human being. Ludwig Feuerbach notices that the essential difference between the human being and animals is consciousness, which is, he contends, the ability that the human being thinks of one’s own species.² Arguably, to understand consciousness is not only to grasp the crucial meaning of the human being but also to distinguish the human being from other organisms. However, although consciousness is an obvious and important thing, it is the most difficult thing to deal with. Consciousness—under a variety

¹ Susan Blackmore, *Conversations on Consciousness: What the Best Minds Think about the Brain, Free Will, and What It Means to Be Human* (New York: Oxford University Press, 2007), 11.

² Ludwig Feuerbach, *The Essence of Christianity* (Amherst, N.Y: Prometheus Books, 1989), 1.

of names such as awareness, thought, mind, Geist, and nous—has been an issue for a long time, but it remains a mystery.

Although it is necessary to study consciousness in order to understand the human being, consciousness studies has difficult problems. With regard to the problems of consciousness, David Chalmers points out that “there is nothing we know about more directly than consciousness, but it is far from clear how to reconcile it with everything else we know.”³ In other words, consciousness cannot currently fit in with the world-view of science. Susan Blackmore mentions two main problems in consciousness studies.⁴ First, we have no generally accepted definition of consciousness because the term *consciousness* is used in various ways. For instance, the word *conscious*, the opposite of the word *unconscious*, can be understood as aware or awake. Also, consciousness can mean subjectivity, personal experience, or cognition. Various usages of consciousness represent that the notion of consciousness itself is too complicated to define. Chalmers contends that it is possible to deal with consciousness only as experience because “trying to define conscious experience in terms of more primitive notions is fruitless.”⁵ Second, consciousness studies necessarily demands interdisciplinary approaches. The structure of consciousness is so complex that we have to approach consciousness from various disciplines such as phenomenology, psychology,

³ David J. Chalmers, *The Conscious Mind: In Search of a Fundamental Theory* (New York: Oxford University Press, 1997), 3.

⁴ Susan Blackmore, *Consciousness: An Introduction* (New York: Oxford University Press), xiv.

⁵ Chalmers, *The Conscious Mind*, 4.

neuroscience, quantum physics, or religious studies. Also, any specific discipline cannot completely unravel consciousness. In this sense, Nagel contends that consciousness studies needs “many stages, over a long period of time, beginning with greatly expanded empirical information about regularities in the relation between conscious states and brain states in ourselves and closely related organisms.”⁶

A Brief History of Consciousness Research

Philosophically, from the mid-17th through the late 19th century, consciousness was central to the issue of the mental. René Descartes was a harbinger who drew attention to consciousness in philosophy. By formulating his famous “Cogito, ergo sum (I think, therefore I am)”, Descartes contends that the essence of the human being is crucially the mind. Since Descartes, many philosophers such as John Locke, G. W. Leibniz, David Hume, and Immanuel Kant had developed their studies about consciousness. In the early 20th century, the issue of consciousness in philosophy culminated in Husserl’s phenomenology. Referring to phenomenology as “science of the essence of consciousness,”⁷ Husserl tried to grasp the notion of pure consciousness. Since Husserl, phenomenologists have kept on attending to consciousness. However, after

⁶ Thomas Nagel, *Mind & Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False* (New York: Oxford University Press, 2012), 69.

⁷ David Woodruff Smith, *Husserl* (London; New York: Routledge, 2007), 315.

Husserl, philosophers' interest in consciousness itself decreased because they believed that it is impossible to recognize pure consciousness.

On the other hand, the scientific study of consciousness is concerned with the development of experimental psychology. From the late 19th to the early 20th century, there emerged various psychological studies on consciousness such as Gustav Fechner's psychophysics, Wilhelm Wundt's introspectionism, Titchner's structuralism, William James's integrative attempts over experience in *Principles of Psychology*, and Gestalt psychology, all of which offered holistic views of consciousness. In the 1920s, John B. Watson founded behaviorism and took the lead in experimental psychology. Relying on positivism and empiricism, Watson excluded consciousness in psychology because consciousness can neither be observed nor understood in physical terms. The development of behaviorism was another reason why philosophers' consciousness studies declined. Behaviorism achieved a dominant position for decades. From the 1960s to the 1980s, cognitive science and functionalism took the place of behaviorism, but they were not very different from behaviorism in dealing with consciousness; that is, consciousness was still neglected.

In the 1990s, philosophical and scientific research into the character of consciousness started to prosper. Since consciousness as subjective experience was brought out, the issue of subjectivity has been noted in the modern science of consciousness. It is widely accepted that Thomas Nagel's paper *What is it like to be a bat* triggered the issue of consciousness as subjectivity in 1974. He showed that the problem

of consciousness led to the failure of solving the mind-body problem.⁸ Since then, the problem of consciousness has been discussed under other names such as the “explanatory gap” and the “hard problem.” The tendency of research on consciousness was not only to overcome the limitations of Cartesian dualism but also to combine philosophical and scientific research on consciousness. The modern research of consciousness is still related to Cartesian dualism. Descartes’s dualism has given rise to two effects: emphasis on consciousness and separation between consciousness and scientific research. Recent research on consciousness has tried to remove the separation between consciousness and science. For example, John R. Searle claims that we should deal with consciousness in science because consciousness is a natural biological feature of certain organisms. He contends that the exclusion of consciousness is based on the false assumption that consciousness is not part of the natural world.⁹ In other words, modern consciousness studies seeks integration between philosophical and scientific research.

Consciousness as Subjective Experience

Consciousness is so complex that it cannot be simply clarified. Some understand consciousness as higher-order thought or self-reflection, while others think of consciousness as all kinds of brain processes. As mentioned above, consciousness does

⁸ Antti Revonsuo, *Consciousness: The Science of Subjectivity* (New York: Psychology Press, 2010), 64.

⁹ John R. Searle, *The Rediscovery of the Mind* (Cambridge, Mass: A Bradford Book, 1992), 93.

not have even a definition generally accepted. Moreover, consciousness is bound up with difficult problems such as the mind-body problem, and it is related to a variety of disciplines. Consciousness studies, therefore, needs to be restricted and focused.

This dissertation will undertake to explore consciousness from two perspectives: consciousness in terms of subjectivity and consciousness in terms of the mind-body problem. The former is interconnected with the latter. Subjectivity in consciousness studies has been regarded as a very difficult issue. Ned Block refers to the problem of subjectivity as a phenomenology, on which we do not make any progress in cognitive psychology.¹⁰ In other words, we have to deal with the issue of subjectivity to make further progress in exploring consciousness. Also, consciousness in the mind-body problem leads to endless conflicts among mentalism, physicalism, and dualism. Therefore, the mind-body problem necessarily requires conversations between philosophy and science. Since both subjectivity and the mind-body problem in consciousness studies are controversial, we cannot be agreed. Instead, this dissertation will explore how consciousness can be understood in terms of subjectivity and the mind-body problem. According to the result of this investigation, the character of subjectivity in consciousness can be supported, enhanced, or rejected. Although the mind-body problem seems insoluble, thinkers have their own perspective on the mind-body problem. By comparing thinkers' thoughts in terms of consciousness, I will suggest the possibility of a new understanding of consciousness.

To begin with, it is necessary to look into how subjectivity became an issue in consciousness. The issue of subjectivity starts with this question: can we say that

¹⁰ Blackmore, *Conversations on Consciousness*, 25.

organisms other than human beings have consciousness? Nagel claims in his article *What is it like to be a bat* that “an organism has conscious mental states if and only if there is something that it is like to be that organism.”¹¹ He takes an explanation of a bat, denying that we can comprehend by imagination what it is like to be a bat. We can imagine that we can fly by using wings and a sonar system just as a bat does. However, he contends that imagining to be a bat cannot be equated with the experience of a bat. His point is that we do not know “what it is like for a bat to be a bat.”¹² Nagel points out that even if we could be transformed into a bat gradually, our experiences cannot be those of the bat. In the opposite way, Nagel maintains that if we can experience what it is like to be a bat, an intelligent bat can form a conception of what it is like to be a human being. According to Nagel, when an organism has experience, it has its subjective point of view, which is related to its own consciousness. Nagel’s bat appears not only when subjectivity needs to be explained but also when other issues in consciousness are discussed. Güven Güzeldere writes that “Nagel’s notion of ‘what it is like to be’ has been so influential that it seems to have an omni-presence in several distinct problems with regard to consciousness.”¹³

The issue of subjectivity in modern consciousness studies was triggered by Nagel, but as a matter of fact, philosophers have long explored consciousness from the

¹¹ Thomas Nagel, “What Is It Like to Be a Bat?,” in *The Mind’s I Fantasies And Reflections On Self & Soul*, ed. Daniel C. Dennett and Douglas R. Hofstadter (New York: Basic Books, 2001), 392.

¹² Nagel, 394.

¹³ Güven Güzeldere, “Approaching Consciousness,” in *The Nature of Consciousness: Philosophical Debates*, ed. Güven Güzeldere, Ned Blcock, and Owen Flanagan (Cambridge, Mass: A Bradford Book, 1997), 37.

perspective of subjectivity. Many philosophers think of consciousness as “the fundamental nature of our personal existence, our subjective existence, our life as a sequence of subjective experiences.”¹⁴ Consciousness studies in phenomenology is also based on the presupposition that consciousness is subjective experience. David Smith refers to Husserlian phenomenology as “the objective science of subjective experience.”¹⁵ Husserl claims that phenomenology is the science of consciousness and that consciousness is subjective experience from a first-person perspective. Barry Smith and David Smith point out that in Husserlian phenomenology, “consciousness is to be studied precisely as it is experience, and accordingly the objects of consciousness, too, need to be characterized precisely as they are given in experience.”¹⁶ In this sense, Chalmers holds that the core of the science of consciousness is “trying to understand the first-person perspective.”¹⁷

Philosophers have noted the unique characteristic of subjective experience. They employ the term *qualia* not only to address phenomenal consciousness but also to escape physical explanation of subjectivity.¹⁸ “Qualia,” a term coined by C.S. Peirce, have been

¹⁴ Antti Revonsuo, *Consciousness: The Science of Subjectivity* (New York: Psychology Press, 2010), xx.

¹⁵ Smith, *Husserl*, 403.

¹⁶ Barry Smith and David Woodruff Smith, eds., *The Cambridge Companion to Husserl* (Cambridge ; New York: Cambridge University Press, 1995), 9.

¹⁷ Blackmore, *Conversations on Consciousness*, 36.

¹⁸ Revonsuo, *Consciousness*, 71.

used to describe private qualities of subjective experience.¹⁹ According to Peirce, qualia are concerned with not only sensory or perceptual experience but also cognitive experience. He maintains that we have “a distinctive quale to every combination of sensation... a peculiar quale to every day and every week—a peculiar quale to my whole personal consciousness.”²⁰ However, philosophers recently refer to qualia to describe feelings based on sensory or perceptual experience at any given moment. These are some examples of qualia. The feeling of the wind on our face as we walk in the beach is a quale. The sight of the shiny green of the leaf in an oak tree is a quale. If qualia exist, consciousness involves qualia because it is believed that consciousness connects subject with object. In other words, the problem of consciousness is how to explain the relation between subjective qualia and the objective world. Levine refers to this problem of consciousness as the “explanatory gap.” Similarly, Chalmers addresses the problem of consciousness as the “hard problem.” Both the “explanatory gap” and the “hard problem” are grounded in the presupposition that qualia exist.

The issue of subjectivity in consciousness can be more clarified by explaining the “explanatory gap” and the “hard problem.” The “explanatory gap” means a gap between subjective experiences and objective brain activities.²¹ Levine explains the “explanatory gap” by comparing the feeling of pain with molecular motion. He notices that the liquidity of water can be explained in terms of molecular motion, while particular

¹⁹ Tim Bayne and Montague Michelle, eds., *Cognitive Phenomenology* (Oxford, UK: Oxford University Press, 2011), 6.

²⁰ Bayne and Michelle, 11.

²¹ Joseph Levine, “Materialism and Qualia: The Explanatory Gap,” *Pacific Philosophical Quarterly* 64 (1983): 354.

subjective experiences such as the feeling of pain cannot be related with certain neural activities. Levine claims that there is the “explanatory gap” between neural activities and subjective experiences. On the other hand, Chalmers names the problem of subjectivity as the “hard problem” so that he may emphasize the difficulty of the problem. In his view, easy problems are problems that can be solved by the methods of cognitive science. Chalmers points out that the hard problem is experience. He claims that experience cannot be so much the definition of consciousness as the clarification of consciousness.²² Chalmers maintains that consciousness cannot be defined in terms of more fundamental notions than experience. Chalmers writes that “the hard problem...is the question of how physical processes in the brain give rise to subjective experience.”²³ The notion of the “hard problem” is fundamentally analogous to the “explanatory gap,” but Chalmers emphasizes that the problem of experience cannot be solved easily. He objects to easy solutions to the problem of consciousness.

When philosophers and scientists deal with some issues relating to the human being, they have their own understanding of consciousness. Although most philosophers approach consciousness from the perspective of subjectivity, subjectivity has been ignored because it is bound up with the problem of dualism. If philosophers view consciousness as subjectivity, they have to prepare an answer for the problem of dualism. However, since the mind-body problem is very difficult, philosophers have been reluctant to treat consciousness as subjectivity. Also, most scientists understand consciousness in

²² Chalmers, *The Conscious Mind*, 4.

²³ David J. Chalmers, “The Puzzle of Conscious Experience,” *Scientific American* 273 (1995): 63.

the materialistic view without considering subjectivity. Because subjectivity is an important issue for a better understanding of consciousness, we need to investigate how the issue of subjectivity is treated by thinkers. As a matter of fact, scientists' new perspective of subjectivity is required more than that of philosophers because subjectivity has been rejected mainly by scientists.

Consciousness in Dualism

Inasmuch as consciousness is entwined with dualism, we need to answer the problem of dualism to deal with consciousness. For consciousness studies, it is necessary to investigate dualism—more specifically, Descartes's dualism. Fundamentally, dualism contends that there are two things composing the world, the mental and the physical. The crucial point of Descartes's dualism consists in his claim that the mind can exist independently of the body. In order to understand his dualism, we need to look into his conception of substance. Descartes contends that substance can exist independently of anything. For example, the shadow of a tree cannot be substance because it depends on the tree. Without the tree, the shadow of the tree would disappear. Descartes believes that only God is a perfect substance since God is independent of anything.²⁴ However, he claims that the mind and the body of the human being are also substance because each one relies only on God. Distinguishing the mind-body from God, Descartes refers to the

²⁴ Rene Descartes, *The Principles of Philosophy*, trans. John Veitch (Blackmask Online, 2002), 20.

mind-body as created substance. The mind or the body does not impinge on each other since it depends only on God. According to Descartes, since the mind is a substance, it can exist independently of the body. Just as the body can exist as corpse without thinking, so the mind can exist without the body.

Descartes's reflection on substance leads to his emphasis on the separability of the mind from the body. Presupposing that every substance has its own principal attribute, Descartes asserts that the essence of the mind is thought and that the principal attribute of the body is extension. He writes that "extension in length, breadth, and depth, constitutes the nature of corporeal substance; and thought the nature of thinking substance."²⁵ In his view, every substance can have its secondary attributes. Corporeal substance can have figure or motion, but the secondary attributes depend on the principal attribute, extension. Similarly, for the mind, sensation, imagination, and will are secondary attributes. According to Descartes, a principal attribute can exist without secondary attributes; not vice versa. In this sense, the principal attribute of the mind is thought and that of the body is extension.

By reflecting on what the most essential substance of the human being is, Descartes concludes that he as a human being is the mind, not the body. To recognize the most certain thing in himself, he supposes that everything—body, shape, movement,

²⁵ Descartes, 20.

place, memory, senses, and so on—is spurious.²⁶ He claims that everything is not certain except one thing. He writes:

At last I have discovered it—thought; this alone is inseparable from me. I am, I exist—that is certain. But for how long? For as long as I am thinking. For it could be that were I totally to cease from thinking, I should totally cease to exist...I am, then, in the strict sense only a thing that thinks.²⁷

Descartes contends that the mind is the essence of the human being. According to him, to say that the mind can exist without the body is to claim that the human being can exist without the physical.

“I thereby concluded that I was a substance whose whole essence or nature resides only in thinking, and which, in order to exist, has no need of place and is not dependent on any material thing. Accordingly this ‘I’, that is to say, the Soul by which I am what I am, is entirely distinct from the body and is even easier to know than the body; and would not stop being everything it is, even if the body were not to exist.”²⁸

By virtue of the character of substance, Descartes stresses the separability of the mind from the body. In this sense, Descartes’s dualism is referred to as substance dualism.

However, Cartesian dualism has the critical problem of how mind interacts with matter. Descartes claimed that the pineal gland is where the mind interacts with the body. Later, it was demonstrated that the pineal gland does not play the role of interaction between mind and matter. Both scientists and philosophers have failed to discover an organ in the human body where the mind can influence the body. Because the problem of

²⁶ Rene Descartes, *Meditations on First Philosophy: With Selections from the Objections and Replies*, trans. John Cottingham, 2nd ed. (Cambridge University Press, 2017), 20.

²⁷ Descartes, 22.

²⁸ Rene Descartes, *A Discourse on the Method*, trans. Ian Maclean (New York: Oxford University Press, 2006), 29.

the interaction between the mind and the body cannot be solved, dualism has been rejected. Blackmore writes that “this problem of interaction bedevils any attempt to build a dualist theory.”²⁹ Furthermore, there are other problems in dualism. Dennett points out that dualism violates the principle of the conservation of energy and that “this confrontation between quite standard physics and dualism” is widely thought of as “the inescapable and fatal flaw of dualism.”³⁰ Therefore, to evade dualism, many philosophers and scientists have tried to develop monism.

In relation to dualism, there are two typical views of consciousness: consciousness as an extra ingredient and consciousness as an intrinsic part. Since Descartes, the key issue of consciousness has been related to dualism, which presupposes the physical and the mental world. In the mind-body problem, consciousness belongs to mind, which is the opposite of the body. However, it is controversial to deal with consciousness as something non-physical. One of the major issues in consciousness studies is whether consciousness is an extra ingredient or an intrinsic part.³¹ On the one hand, if consciousness is one of inbuilt brain processes, we do not have to ask why we humans have consciousness because it is necessarily embedded in the brain. On this view, we do not have to wonder about consciousness itself because the brain can be equated with consciousness. On the other hand, if consciousness is an extra ingredient, consciousness can be separated from the body. On this view, an organism with a highly

²⁹ Susan Blackmore, *Consciousness: A Very Short Introduction* (Oxford, UK ; New York, N.Y: Oxford University Press, 2005), 4.

³⁰ Daniel C. Dennett, *Consciousness Explained* (Boston: Back Bay Books, 1992), 35.

³¹ Blackmore, *Consciousness*, 2005, 8.

developed brain can have no consciousness, and we need to ask radical questions. What is consciousness? When did it happen in the history of evolution? Why did human beings obtain it? What is the role of consciousness?

Many philosophers have tried to overcome dualism by suggesting various monist theories such as materialism, epiphenomenalism, neural monism, and panpsychism. Most monist theories hold that the primary element of the world is either of the two—mind and matter—and that the other of the two is secondary. For example, materialists claim that the basic element is matter and that mind results from just a function of matter. From this perspective, consciousness is also a consequence of complicated processes of matter. On the other hand, panpsychism claims that the basic element is mind and that matter is the outcome of some process of mind. Although dualism has been mostly despised, some scholars argue for a specific dualism such as property dualism. Property dualism claims that nature consists only of physical substance and that physical substance has two properties: physical property and mental property. Also, property dualism holds that mental property cannot be separated from physical property. In other words, mind and matter are so interlocked that we cannot separate the two. Some monist theories agree with this claim that mind is tightly combined with matter. We need to distinguish property dualism and radical dualism because it is radical dualism that has been seriously dismissed. Descartes's dualism is a radical dualism; therefore, he asserts not only that there is something non-physical but also that mind can be disconnected from matter. Nagel writes that "Descartes said that since we can clearly conceive of the mind existing without the physical body, and vice versa, they can't be one thing."³² Since there are

³² Nagel, *Mind & Cosmos*, 40.

various dualisms, Cartesian dualism is distinguished from other dualisms by the name of radical dualism.

To argue for radical dualism is to say that human consciousness can exist without the body. If consciousness is the non-physical, we can conceive that consciousness is independent of matter. However, if non-dualism or property dualism is true, there is no consciousness where there is no matter. Some philosophers claim that consciousness has been regarded as a mystery because we reject Cartesian dualism. Others contend that materialism will account for consciousness someday only if we abandon dualism.³³

The issue of consciousness leads to the reconsideration of dualism as well as resistance to materialism. In the 20th century, while philosophers tended to avoid dualism, most scientists renounced dualism—especially Cartesian dualism. Rejecting dualism, scientists attempted to explore consciousness in the materialistic view; consciousness was regarded only as a physical phenomenon. More specifically, scientists with the materialistic perspective understand that the brain is the mind including consciousness.³⁴ However, they failed to unravel the mystery of consciousness. As a result, dualism re-emerged with the problem of subjectivity in consciousness and challenged materialistic reductionism. Some philosophers such as David Chalmers started to declare themselves as a dualist. Recently, materialistic reductionism has been criticized not only because it fails to explain some phenomena including consciousness but also because it is not compatible with human experience. Along with the decline of materialistic reductionism, consciousness has been described in a dualism recently. Some

³³ Dennett, *Consciousness Explained*, 42.

³⁴ Dennett, 41.

philosophers who consider both science and the subjectivity of consciousness tend to argue for property dualism and understand consciousness as an emergent property. For example, John Searle claims that consciousness is a biological feature and that “all conscious phenomena are qualitative, subjective experiences, and hence are qualia.”³⁵ Colin McGinn is another property dualist. Referring to consciousness as “a mysterious flame,” he writes that “the brain has the raw materials with which to ignite consciousness...but we lack the kind of theoretical understanding that could render this occurrence predictable and natural.”³⁶ However, we can hardly find philosophers who take the position of radical dualism such as Cartesian dualism.

This dissertation will explore the thoughts of Robert Corrington, Yu Young-mo, and Henry Stapp in terms of the mind-body problem. I will investigate if consciousness can be treated as something non-physical. Cartesian dualism has been denied by most philosophers, but this dissertation will examine if each thinker’s thoughts are compatible with Cartesian dualism. Although Cartesian dualism is so radical that we can hardly prove or accept it, we need to look into it because it shows the distinguishing characteristic of dualism. Also, the relationship between dualism and quantum physics will be explored because classical physics does not accept the possibility of something non-physical.

³⁵ John R. Searle, *The Mystery of Consciousness* (New York: A New York Review Book, 1997), 9.

³⁶ Colin McGinn, *The Mysterious Flame: Conscious Minds In A Material World* (New York, NY: Basic Books, 2000), 60–61.

Scope and Plan for Dissertation

This dissertation investigates the thoughts of Corrington, Yu Young-mo, and Stapp in terms of consciousness. The issue of consciousness is so complex and diverse that it needs to be restricted and focused; therefore, I will explore consciousness by drawing on the thoughts of the three thinkers. This dissertation will deal with philosophical approaches to consciousness, but it will try to find the possibility of a new understanding of consciousness by attempting dialogues among the three thinkers. Corrington is a philosopher, Yu Young-mo a theologian, and Stapp a mathematical physicist. I will attend to what their thoughts have in common and explain how consciousness can be understood better by interactions among their thoughts.

Corrington's ecstatic naturalism will lay the foundation for understanding consciousness in a philosophical perspective although consciousness is not his main research topic. Consciousness as subjectivity has been a philosophical issue; specifically, Husserlian phenomenology focused on the issue of consciousness. Other phenomenologists have not had as much interest in consciousness as Husserl did, but consciousness has been a major topic of phenomenology. Therefore, if consciousness is studied from a subjective point of view, phenomenology needs to be taken into consideration. Corrington's ecstatic naturalism is grounded in ordinal phenomenology which derives from and develops classical phenomenology. Although Corrington does not directly deal with the issue of consciousness, he has his own understanding of consciousness based on the phenomenological perspective. When ecstatic naturalism is investigated in terms of consciousness, we can recognize how consciousness is understood and used in Corrington's philosophy. Also, the uniqueness of ecstatic

naturalism will be shown by investigating how ecstatic naturalism employs the notion of consciousness.

While philosophers are reluctant to deal with consciousness, many scholars of religious studies treat consciousness as subjectivity because most religions assume that there is the non-physical such as God, spirit, or soul. For religion scholars, consciousness has been a main issue because religious practice is related to mind training. They attend to the role of consciousness; more specifically, they try to clarify what people should focus on with their consciousness. Obviously, the role of consciousness is another important aspect of consciousness. In this sense, it is worth investigating Yu Young-mo's thoughts about consciousness. Yu Young-mo is a theologian, and he is versed not only in Christianity but also Confucianism, Buddhism, and Taoism. Yu Young-mo claims that we can achieve the ultimate goal of the human being through consciousness. Since he directly accounts for the role of consciousness from the perspective of subjectivity, his thoughts about consciousness will be helpful in examining consciousness although religion scholars' consciousness studies has been ignored. Because most religions are based on dualism, the rejection of dualism entails the exclusion of religious studies in consciousness studies. Although religion scholars contributed to consciousness studies by reflecting accumulations of human experience, their research has not been taken seriously. However, if dualism is reconsidered, religion scholars' consciousness studies has to be re-illuminated. Religion scholars can tell us what we can and should do with our consciousness because the role of the human being is the major issue of most religions. Because this dissertation tries to reconsider dualism, we need to take seriously the consciousness studies of religion scholars such as Yu Young-mo.

More importantly, if consciousness is treated as subjectivity, it is necessary to have dialogues with scientists. Scientists have excluded subjectivity in science because science must be based on objectivity. For most scientists, subjectivity cannot and must not be a research topic. Also, since subjectivity is bound up with the mind-body problem, to deal with consciousness as subjectivity is to consider the non-physical in the realm of science. Most scientists do not take the non-physical as an object of their research because the non-physical can be neither measured nor observed. For these reasons, consciousness as subjectivity has been rejected by scientists; as a result, when they deal with consciousness, they take the materialistic point of view, which is compatible with classical mechanics. In other words, consciousness as subjectivity cannot be explored in terms of classical mechanics.

When we deal with consciousness in terms of subjectivity, classical physics will hinder consciousness studies. From the view of classical mechanics, consciousness as subjectivity cannot be accepted. If philosophers want to develop their own theories about consciousness on the basis of classical physics, they would have difficulty in considering the subjectivity of consciousness. For example, philosophical theories based on Darwinism can hardly take into consideration the subjectivity of consciousness because Darwinism is fundamentally compatible with classical physics. Also, because of classical physics, religious studies dealing with consciousness as subjectivity has been regarded as non-scientific. Along with the decline of philosophical and religious studies about consciousness, the active and positive role of consciousness has been dismissed because classical physics claims that consciousness results from physical processes, whether they

take place in the brain or the whole body. From the perspective of classical mechanics, consciousness is regarded as passive.

This dissertation provides a scientific perspective on consciousness as subjectivity by using quantum physics. This may seem to be an unusual and overreaching strategy. However, I will show that quantum physics is helpful for consciousness studies for three reasons. First, quantum physics is directly concerned with the issue of subjectivity because of the so called “quantum measurement problem.” The quantum measurement problem has, from the start, been very controversial since it conflicts with the world-view established by classical mechanics. There have been many theories accounting for the quantum measurement problem. However, a quantum theory was accepted as ‘orthodox’ by most quantum physicists; it has been called orthodox quantum physics. Orthodox quantum theory claims that an observer determines the state of a quantum object. In other words, subjectivity cannot be ignored in the process of measurement. Second, quantum physics can describe the world better than classical mechanics. We are likely to think that quantum physics is applied only at the microscopic level whereas classical mechanics is valid at the microscopic level. However, the physics theorist Karan Barad contends that “quantum mechanics is the most successful and accurate theory in the history of physics, accounting for phenomena over a range of twenty-five orders of magnitude, from the smallest particles of matter to large-scale objects.”³⁷ Quantum physics can explain the world from the microscopic to the macroscopic level more accurately than classical physics. Third, despite its controversial history in physics, quantum mechanics is more

³⁷ Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press Books, 2007), 110.

compatible with our general ideas about the role of the human being in nature. According to classical mechanics, we cannot play a pivotal role in the physical world because we are determined by objects out there. In the realm of classical mechanics, there is no space for consciousness as subjectivity. The quantum physicist Henry Stapp, one of the thinkers investigated in this dissertation, is one of scientists who notice the limitations of classical physics in plumbing human consciousness in nature. He writes that “quantum mechanics is more understandable than classical mechanics because it is more deeply in line with our common-sense ideas about our role in nature than the automaton notion promulgated by classical physics.”³⁸ What happens at the microscopic level goes against common sense, but quantum physics secures the role of consciousness in nature.

In this dissertation, the quantum physicist Stapp is chosen as a dialogue partner. Stapp is a mathematical quantum physicist who accepts orthodox quantum theory. Therefore, by investigating Stapp’s thoughts, we can explore a commonly accepted quantum theory. Furthermore, he takes seriously the possibility that there is the non-physical. Most quantum physicists emphasize subjectivity, but they do not consider the influence of the non-physical on the physical world. However, understanding consciousness or free will as a phenomenon of the non-physical, Stapp argues for the relation of quantum physics to the non-physical. Later, drawing on the implications of orthodox quantum physics, he proposes an ontology—a so called “revised Whiteheadianism”—by expanding on Alfred North Whitehead’s process thought.

³⁸ Henry P. Stapp, *Mindful Universe: Quantum Mechanics and the Participating Observer* (New York: Springer, 2011), 7.

The issue of consciousness is an area in which dialogues between philosophy and science are necessary. Quantum physics requires philosophy because the notion of consciousness itself needs a philosophical understanding. Although quantum physicists claim that we should take consciousness seriously, their concept of consciousness is unclear. In *On Physics and Philosophy*, Bernard d’Espagnat explains where science demands philosophy.³⁹ He notes that the meaning of hotter or colder cannot be an issue because everybody knows its meaning. He goes on to explain that when it comes to unfamiliar notions such as a quantum field, it would be absurd to deal with such entities without making them clear. Furthermore, the notion of consciousness or freedom in quantum physics is so complicated that we cannot use it intuitively. It has to be explicated and refined philosophically. Without considering a philosophical understanding of consciousness, quantum physics cannot be understood well. Quantum physics is ambiguous without philosophers’ help.

We can explore consciousness in terms of subjectivity only if we employ interdisciplinary studies between philosophy and science. Consciousness as subjectivity has been ignored because subjectivity is bound up with the mind-body problem. Scientists have cast doubt on the existence of the non-physical in the mind-body problem. For this reason, philosophers have avoided dealing with not only consciousness as subjectivity but also consciousness itself although the issue of consciousness prospered until the early 20th century. However, if consciousness is understood as completely depending on physical processes, we cannot mention the subjective role of

³⁹ Bernard d’Espagnat, *On Physics and Philosophy* (Princeton: Princeton University Press, 2006), 250.

consciousness. It is important to treat consciousness as subjectivity, because a human being can be understood as a subject when consciousness is understood as subjectivity. What we can do is what consciousness can do, because consciousness is the crucial element of the human being. Interdisciplinary studies between philosophy and science is necessarily required because without the support of science, we cannot deal with consciousness as subjectivity. Furthermore, if consciousness is understood as subjectivity, philosophers can rekindle the issue of consciousness in philosophical studies.

Every Entity Has Consciousness

Comparing the thoughts of Corrington, Yu Young-mo, and Stapp, I argue that every entity has something that can be called consciousness, a consciousness which includes subjectivity, the possibility of the non-physical, and the interaction between subject and object. If the notion of consciousness is restricted to subjectivity, it can be said that every entity has consciousness, which, in this case, is another name for subjectivity. However, the notion of consciousness in this dissertation is more than subjectivity. As mentioned above, this dissertation employs two perspectives on consciousness: consciousness as subjectivity and consciousness in the mind-body problem. The former perspective is entwined with the latter one. If consciousness in the mind-body problem is accepted as something non-physical, consciousness as subjectivity will be enhanced because subjectivity is relevant to something unmeasurable and unobservable. Moreover, if consciousness is related to the non-physical, simple entities

can have consciousness although they do not have complex organs such as a brain. The notion of consciousness in this dissertation is at least enhanced subjectivity; at the same time, it involves the effect of a subject on an object in the process of observation.

Quantum physics plays a pivotal role in extending the notion of consciousness to more than subjectivity. However, the main argument of this dissertation is a statement of possibility since consciousness as non-physical subjectivity can hardly be proved. If consciousness is non-physically subjective, it can be neither discerned nor described from a third-person view.

Consciousness as subjectivity is supported by Corrington, Yu Young-mo, and Stapp. Corrington does not directly deal with the issue of consciousness, but his ecstatic naturalism is explained on the basis of his conception of consciousness. Keeping on talking about the interactions between consciousness and unconsciousness, he emphasizes the subjectivity of the human being and the relation of consciousness to the non-physical. For Corrington, the history of human evolution is a process in which the human being has achieved their own subjectivity.⁴⁰ For Yu Young-mo, the act of thinking is the process of enhancing subjectivity. For him, consciousness as subjectivity is the way to enlightenment, the ultimate goal of the human being. Although Yu Young-mo is a Christian theologian, he tries to integrate four religions: Christianity, Confucianism, Taoism, and Buddhism. Therefore, by examining Yu Young-mo's thoughts about consciousness, we can recognize how the world's major religions understand consciousness. According to Yu Young-mo, we can reach the state of enlightenment by

⁴⁰ Robert S. Corrington, *Nature's Sublime: An Essay in Aesthetic Naturalism* (Lanham: Lexington Books, 2013), 45.

reinforcing subjectivity. Lastly, Stapp scientifically supports the view that consciousness can be understood as subjectivity. Stapp as a quantum physicist maintains that the act of measurement—the most fundamental activity of the human being—cannot secure objectivity. Relying on orthodox quantum physics based on the Copenhagen interpretation, he argues for subjectivity by connecting it with human consciousness. His argument is compelling because we believe that science is in the realm of objectivity. Stapp avers that “orthodox Copenhagen quantum theory is about our knowledge,” which cannot rule out subjectivity.⁴¹ In this sense, he writes that “we, and in particular our mental aspects, have entered into the structure of basic physical theory.”⁴²

Drawing on three scholars’ research on consciousness, this dissertation suggests that we reconsider the possibility of the non-physical. Although the existence of the non-physical is not equated with radical dualism, consciousness studies tends to look upon the non-physical as related to dualism. Corrington does not refer to consciousness as non-physical, but ecstatic naturalism contends that both the unconscious of the self and of nature infiltrate into the conscious of the self. In his view, human consciousness is related to the brain, but he points out that consciousness is influenced by the unconscious of nature. According to Corrington, consciousness is an emergent property related to a brain; at the same time, it is at least an action site on which the non-physical works. Also, he contends that consciousness is connected with the spirit, which plays a pivotal role in maximizing the self by the selving process. Yu Young-mo presupposes that consciousness is tightly associated with the non-physical. For him, consciousness is

⁴¹ Stapp, *Mindful Universe*, 13.

⁴² Stapp, 13.

fundamentally non-physical and the essence of nature is also non-physical. He maintains that when a human being physically dies, his or her consciousness survives. Stapp focuses on the ability of free choice in consciousness and on the chasm between free choice and the physical world. He claims that free choice is in the realm of the non-physical in that it is not influenced by the physical world.⁴³ While most philosophers cautiously cope with the realm of the non-physical, Stapp strongly argues for the existence of the non-physical. Furthermore, he claims that the essence of everything is mind-like rather than matter-like.

Consciousness as subjectivity and the possibility of non-physical consciousness lead us to recognize the role of consciousness. When consciousness is understood in terms of non-physical subjectivity, consciousness can play an active role. Corrington, Yu Young-mo, and Stapp attend to the role of consciousness. For Corrington, the human being should accomplish the selving process and maximize one's own freedom by stimulating the activities of consciousness with the spirit and with the unconscious of nature. Yu Young-mo contends that the role of consciousness is to meet with God through the process of thinking. He also claims that the human being can obtain perfect freedom by reaching the state of enlightenment. Corrington's understanding of freedom is different from that of Yu Young-mo. While, for Corrington, freedom is a freedom from the sovereignty of nature, for Yu Young-mo freedom is a freedom from the bondages of objects. However, both of them emphasize the subjectivity of consciousness. Unlike Corrington and Yu Young-mo, Stapp just focuses on the ability of free choice since he is

⁴³ Henry P. Stapp, *Quantum Theory and Free Will: How Mental Intentions Translate into Bodily Actions* (New York, NY: Springer, 2017), 10.

a scientist. For him, the notion of freedom is restricted to the ability of choice. However, it is worth noticing that Corrington, Yu Young-mo, and Stapp draw attention to freedom in relation to consciousness. According to them, the human being can subjectively take the initiative in having relations with objects.

Finally, quantum physics tells us a critical effect of consciousness on objects; at the same time, Stapp leads us to notice why we need interdisciplinary studies among philosophy, theology, and science. It seems that quantum physics has little to do with consciousness, but orthodox quantum physics points out that an observer has an impact on the state of the observed. The interaction between an observer and the observed represents the crucial role of observation, which is deeply concerned with consciousness. We can say that what takes place in the process observation results from consciousness. In this way, quantum physics can enhance the importance of observation through consciousness. Corrington and Yu Young-mo investigate consciousness from the perspective of philosophy or theology; their notion of consciousness can be complemented or modified by Stapp because quantum physics can tell us new facts about consciousness. Consciousness studies requires dialogue and cooperation among philosophy, theology, and science. This dissertation hopes to contribute to that interdisciplinarity.

2. CONSCIOUSNESS, UNCONSCIOUSNESS, AND THE SPIRIT IN CORRINGTON'S PHILOSOPHY

2.1. Phenomenological Approach to Consciousness

Husserl's Phenomenology and Consciousness

Prior to embarking upon an analysis of Corrington's philosophy in terms of consciousness, I will briefly examine consciousness from the perspective of classical phenomenology. Corrington develops ecstatic naturalism in the frame of ordinal phenomenology, which is, he claims, "the most powerful and yet neutral in letting phenomena prevail as they are."¹ Ordinal phenomenology is based on the classical phenomenology of Husserl and Heidegger. In other words, classical phenomenology lays the foundation for ecstatic naturalism. Since consciousness is a major issue of phenomenology, to explore classical and ordinal phenomenology in terms of

¹ Robert S. Corrington, *Deep Pantheism: Toward a New Transcendentalism* (Lanham: Lexington Books, 2017), xvi.

consciousness is not only to investigate the core of phenomenology but also to look into how ordinal phenomenology is distinguished from classical one.

Husserl, the founder of phenomenology, accounts for phenomenology as the “science of the essence of consciousness,”² bringing out consciousness as a crucial issue. However, many phenomenologists have not followed Husserl’s lead because he attempted to delve into the transcendental ego by seeking the essence of consciousness. Husserl took a transcendental turn and tried to conduct a complete reduction, but many phenomenologists denied the possibility of the complete reduction in that we are involved in the world.³ Therefore, although they deal with the issue of consciousness, they do not employ Husserl’s terms such as intentionality, noema, and epoché because the terms imply that transcendental subjectivity can be separated from objects.

Nevertheless, Husserl’s doctrine of intentionality underlies most phenomenologists’ thoughts. The doctrine of intentionality asserts that “every consciousness is consciousness of something.”⁴ Although his statement seems simple, it has a significant meaning. We are likely to conceive that consciousness can exist independently of objects. Phenomenology maintains that consciousness is related to objects outside itself. Husserl writes that “from an objective standpoint it is doubtless the

² Smith, *Husserl*, 315.

³ Dermot Moran, *Introduction to Phenomenology* (London; New York: Routledge, 2000), 160.

⁴ Edmund Husserl, *Ideas: General Introduction to Pure Phenomenology*, trans. W. R. Boyce Gibson (London ; New York: Routledge, 2012), 201.

case that in each act the ego is intentionally directed to some object.”⁵ His view of consciousness has to be noted since consciousness, Sokolowski points out, is “taken to be like a bubble or an enclosed cabinet.”⁶ Phenomenologists claim that consciousness has directedness toward objects. The directedness of consciousness has to be distinguished from randomness or passivity.

It is necessary to investigate the doctrine of intentionality because it is a key characteristic of Husserl’s notion of consciousness. Husserl views intentionality as cognitive experience rather than receptive experiences through sensations. That is to say, Husserl understands consciousness as a process in human cognition. The doctrine of intentionality emphasizes the relationship between the ego and objects out there. Noticing intentionality as the essential character of consciousness, Husserl explains that “in perception something is perceived, in imagination, something imagined, in a statement something stated, in love something loved, in hate hated, in desire desired etc.”⁷ In this sense, intentionality seems to involve not only purposive activities but also passive acts such as hearing a sound. Husserl, however, claims that sensations and sensational complexes are not intentional experiences.⁸ Strictly speaking, sensation is different from perception in that the former refers to input obtained by sensory receptors about the

⁵ Edmund Husserl, *Logical Investigations, Vol. 2*, ed. Dermot Moran (London ; New York: Routledge, 2001), 101.

⁶ Robert Sokolowski, *Introduction to Phenomenology* (Cambridge, UK ; New York: Cambridge University Press, 1999), 9.

⁷ Husserl, *Logical Investigations, Vol. 2*, 95.

⁸ Husserl, 97.

physical world, whereas the latter stands for a process through which we recognize and interpret the world. For Husserl, intentionality happens in human cognition. Moran, therefore, points out that Husserl sees consciousness as the “waking ego” and unconsciousness such as sleep and dreaming as “modifications of this primary wakefulness.”⁹

Although consciousness is involved in various kinds of data for objects, Husserl focuses on the relationship between consciousness and objects. He affirms that the intentional act of consciousness is directed to an object rather than its contents. Sensations are fundamental information that we can obtain from objects. In Husserl’s view, when we are conscious of an object out there, we cannot separate sensations such as color, sound, or smell from the object. He writes that “I do not see color-sensations but colored things, I do not hear tone-sensations but the singer’s song.”¹⁰ For example, we are conscious of the white color of the moon, not white itself from the moon. Hence, Husserl draws attention to objects to which consciousness has relation. He distinguishes between the object as it is intended and the real object, naming the former noema.

We need to note Husserl’s notion of noema not only because noema is crucial to his phenomenology but also because it makes a distinction between Husserl and other phenomenologists. Husserl claims that since “every intentional experience...is noetic, it is its essential nature to harbor in itself a meaning of some sort.”¹¹ He explains noesis as

⁹ Dermot Moran, *Edmund Husserl: Founder of Phenomenology* (Cambridge, UK ; Malden, MA: Polity, 2005), 143.

¹⁰ Husserl, *Logical Investigations, Vol. 2*, 99.

¹¹ Husserl, *Ideas*, 184.

the act of thinking and noema as relating to the meaning of noesis. As a matter of fact, Husserl has already undertaken to develop the notion of noema in his *Logical Investigations* by distinguishing the object which is intended from the object as it is intended. The latter is the noema, which is directed to the object, but it is not the object itself. Noema can be regarded as a vehicle which makes a bridge between one's thought and the intended object.¹² Husserl writes that "corresponding at all points to the manifold data of the real noetic content, there is a variety of data displayable in really pure intuition, and in a correlative 'noematic content', or briefly 'noema'".¹³ According to Husserl, when we perceive an object, what we constitute in our mind is the noema as the perceptual meaning.

Husserl explains the concept of noema by taking an example of an apple tree.¹⁴ Let us suppose that we are looking at an apple tree in a garden. Husserl distinguishes the real apple tree from the real perception. Although we think that we are perceiving the apple tree as subsisting out there, it might be a hallucination. In fact, we can be conscious of something fictional which does not exist in the real objective world. The point is that when we are conscious of an object, we have the content of the object within perception. This content, on which Husserl focuses, is noema. For Husserl, noema is what is more fundamental than real objects. He points out that even if we burn up the apple tree in the garden, the noema of the tree cannot be forfeited. Husserl holds that the noema is "the

¹² Moran, *Introduction to Phenomenology*, 157.

¹³ Husserl, *Ideas*, 185.

¹⁴ Husserl, 185.

meaning of this perception, something that belongs necessarily to its essence.”¹⁵ Husserl, therefore, tries to build the full noema of an object or obtain the essential phases of the noema. That is to say, Husserl seeks to grasp the noema through the act of noesis.

Husserl suggests various models of approaching an essential science of science, emphasizing the act of referring rather than the actual reference. Husserl employs many terms such as reduction, epoché, bracketing, and eidetic seeing in order to describe the procedure of doing phenomenology. In the late Husserl, he generally uses the term *reduction* to refer to the models of grasping the essence of consciousness. Epoché, bracketing, or eidetic seeing can be understood as part of reduction. Epoché is to suspend our natural attitudes toward objects; bracketing means to bracket some underlying structures to see more essential structures of consciousness. The eidetic seeing is to see essence. As far as noema is concerned, reduction can be looked upon as the procedure of attaining the noema of an object. Although Husserl suggests many models of the reduction, the reduction has some primary principles. First, the reduction demands to put aside every kind of conventional opinion or theory, whether it is a commonly-accepted truth or a firmly-proved theory. Therefore, the procedure of the reduction entails the change of our attitude. Second, the reduction aims to draw attention to the core structure of subjectivity. In other words, the reduction leads us to focus on our own subjectivity as the subject of an experience rather than the experience itself. In Husserl’s view, “reduction provides the only genuine access to the infinite subjective domain of inner

¹⁵ Husserl, 187.

experience.”¹⁶ The reduction involves trying to think of an object in new ways instead of in conventional or natural ways.

Husserl tries to delve into the transcendental ego by the method of the reduction because he believes that the ultimate essence of all the formation of consciousness consists in the transcendental ego. In this sense, his phenomenology is called transcendental phenomenology. Although the term *transcendental* can be used in various meanings, Husserl employs the concept of transcendental as opposed to that of natural or empirical. He contends that we have to focus on subjectivity as the transcendental ego rather than objectivity secured by natural or empirical attitudes. Husserl’s phenomenology supports a priori in that he asserts that the meaning structure of objects is already in the human mind. but his a priori is different from that of Kant. For Kant, a priori is regarded as ontological because it is indifferent to objects, whereas Husserl’s a priori is related to objects. Husserl’s transcendental methodology differs from Cartesianism, since Descartes sees the cogito as “thinking substance” while phenomenology understands “the original givenness of consciousness precisely as modes of self-givenness rather than as entities in any naturalistic sense.”¹⁷

¹⁶ Moran, *Introduction to Phenomenology*, 147.

¹⁷ Moran, 139.

Husserl's Influence on Heidegger and Corrington

Resisting Husserl's transcendental phenomenology, Heidegger develops hermeneutical phenomenology, which stands in a sharp contrast to transcendental phenomenology in that it is based on the empirical aspects of the human being. Hermeneutical phenomenology holds that the human condition including consciousness is situated in life and history. The early Heidegger was convinced that we would discover the logic of all logical principles that provides the key to the domain of Being. However, retracting his early opinion, he asserted that truth as the essence of logical principles unconceals itself only to humans who are historically situated. In this sense, Richard Polt points out that "perfect unconcealment is impossible" since "truth is necessarily accompanied by untruth."¹⁸ Hermeneutical phenomenology is not so much a specific method based on cultural and historical theories as a way in which we exist and experience. That is to say, hermeneutical phenomenology asserts that all our experience is interpretive. Moran points out that Heidegger regards knowledge as "a sub-species of a kind of concerned dealing with the world" rather than "a kind of intellectual representation."¹⁹

Although Heidegger draws attention to human existence interlocked with the world instead of the essence of consciousness, his notion of thinking has something in common with Husserl's idea of consciousness. First, Heidegger's conception of consciousness is compatible with Husserl's doctrine of intentionality. Although

¹⁸ Richard Polt, *Heidegger: An Introduction* (Ithaca, N.Y: Cornell University Press, 1999), 15.

¹⁹ Moran, *Introduction to Phenomenology*, 236.

Heidegger does not focus on consciousness, he holds that consciousness has directedness toward objects out there. Heidegger rejects Husserl's transcendental phenomenology, but it means neither that there is no noema nor that epoché is useless. Rather, it can be said that Heidegger eludes transcendental phenomenology since he accepts Husserl's doctrine of intentionality. In a sense, Husserl's attempt is paradoxical. On the one hand, Husserl contends that consciousness is inevitably connected to something out there; on the other hand, he seeks to discover the essence of consciousness by isolating consciousness from objects. Heidegger's notion of Dasein is based on the presupposition that the human being is inevitably being-in-the-world.

Second, Heidegger agrees with the importance of ceaseless thinking although he rejects the possibility of carrying out a complete reduction. Husserl urges us to be conscious of objects by trying to put aside natural attitudes towards objects, suggesting various procedures such as reduction, epoché, and bracketing. Just as Husserl focuses on the act of thinking in order to grasp transcendental consciousness, so Heidegger contends that we have to try to think. Heidegger points out that we are not thinking even when we seem to think. Heidegger writes that "most thought-provoking in our thought-provoking time is that we are still not thinking."²⁰ Heidegger does not clarify the notion of thinking, but he urges us to try to keep on thinking. He claims that "we human beings do not yet sufficiently reach out and turn toward what desires to be thought" and that what must be thought withdraws from human beings.²¹ Heidegger tries to lead us to move toward the

²⁰ Martin Heidegger, *What Is Called Thinking?* (New York: Harper Perennial, 1976), 6.

²¹ Heidegger, 6.

core that must be thought. While Husserl attempts to obtain transcendental consciousness through the reduction, Heidegger emphasizes the attempt of thinking itself. Heidegger points out that “as we are drawing toward what withdraws, we ourselves are pointers pointing toward it.”²² In his view, the essential nature of the human being consists in “being such a pointer.”²³

Husserl’s thoughts on consciousness underlie ecstatic naturalism even though consciousness is not central to Corrington’s philosophy. Husserl’s doctrine of intentionality is extended to the realm of unconsciousness by Corrington’s ecstatic naturalism. Corrington draws attention to the connectedness of consciousness not only to objects but also to unconsciousness. According to Corrington, consciousness is a realm which both the unconsciousness of the self and the unconscious of nature keep trying to reach. Furthermore, just as Husserl emphasizes the act of thinking through a complete reduction, so ecstatic naturalism claims that we human beings are supposed to accelerate the incessant semiosis of signs and objects. According to Corrington, the spirit stimulates us to make connections between signs and objects. Also, he introduces new notions such as involution, which helps human beings to unfold novel semiosis.²⁴

Ecstatic naturalism extends the doctrine of intentionality to the relations between every entity in nature. Ecstatic naturalism is not only an extended return to Husserlian phenomenology but also a criticism of Heidegger’s phenomenology. When Heidegger published his book *Sein und Zeit*, Husserl criticized that Heidegger’s phenomenology is

²² Heidegger, 9.

²³ Heidegger, 9.

²⁴ Corrington, *Nature’s Sublime*, 122.

too anthropocentric. Since Heidegger, most phenomenologists have understood consciousness from the anthropocentric perspective. They maintain that the relation of consciousness to objects is based on first-person experience, referring to phenomenology as “a sustained and unified effort to clarify our understanding of philosophically or theoretically relevant distinctions, with recourse to an underived and critical use of first-person reflection.”²⁵ To say that experience is first-person experience is to claim that experience has something unexplainable from a third-person perspective. In other words, it means that experience can be neither objectified nor explained from an objective perspective. For this reason, Husserl objects to naturalism because naturalism explains everything in naturalistic laws without considering subjectivity. Understanding experience as subjective experience, phenomenologists have attended only to human consciousness. However, Husserl’s doctrine of intentionality is applicable to entities other than human beings. Corrington’s ecstatic naturalism is a naturalism, but it applies the subjective relation between consciousness and objects to every relationship between sign and object. While Husserl considers only the subjectivity of human consciousness, ecstatic naturalism points out that every entity can have subjectivity. In ecstatic naturalism, a sign is the subject of both ecstasy and melancholy in the process of semiosis. Just as consciousness has subjectivity in its relation to something, so a sign can be regarded as having subjectivity in relation to an object. According to ecstatic naturalism, every order including material has its own subjective experience as a sign. In this sense, consciousness is related not only to human beings but also to other entities. If

²⁵ Charles Siewert, “Respecting Appearances: A Phenomenological Approach to Consciousness” in *The Oxford Handbook of Contemporary Phenomenology*, ed. Dan Zahavi (Oxford: Oxford University Press, 2015), 50.

consciousness is regarded as subjective experience, ecstatic naturalism supports the view that every entity has consciousness.

2.2. Consciousness and Unconsciousness in Ecstatic Naturalism

Ordinal Phenomenology and Ecstatic Naturalism

Corrington's method of philosophy is phenomenological, but it is different from classical phenomenology. Distinguishing his phenomenology from that of Husserl or Heidegger, Corrington refers to it as ordinal phenomenology. While classical phenomenology considers visual or temporal aspects, ordinal phenomenology deals with complex orders including nature and community.²⁶ For Corrington, ordinal phenomenology lays the foundation for his major theories such as deep pantheism and ecstatic naturalism. He sees ordinal phenomenology as the primary method of deep pantheism since it employs "the ordinal concepts that are also pertinent to the metaphysics of ecstatic naturalism, the 'frame' within which deep pantheism thrives and functions."²⁷ In *Deep Pantheism*, Corrington explains that ordinal phenomenology has

²⁶ Robert S. Corrington, *Nature and Nothingness: An Essay in Ordinal Phenomenology* (Lanham: Lexington Books, 2017), xii.

²⁷ Corrington, *Deep Pantheism*, xxiii.

three things in common with classical phenomenology.²⁸ First, phenomenology aims to lead phenomena to appear as self-giving or self-showing with a better metaphysics. Second, a phenomenon has to be investigated by a variety of profiles to grasp its fullest meaning. Lastly, the context of phenomenological acts is much larger than that of the human process. Also, Corrington accounts for the difference between ordinal and classical phenomenology. Although there are many differences between the two phenomenologies, we need to attend to the metaphysical view of ordinality that “everything...is an order within the one nature that there is.”²⁹ Ordinal phenomenology contends that there is no essence of phenomena and that there is no absolute Order which is more essential than others. The metaphysical view of ordinal phenomenology is grounded in ontological parity, which asserts that nothing is “more real, more natural, more genuine, or more ultimate than any other.”³⁰

Among many phenomenologists, it is Heidegger that has given the deepest impact on Corrington’s ecstatic naturalism. The notion of ecstasy serves to lay the foundation for the philosophy of both Heidegger and Corrington. Heidegger accounts for the notion of ecstasy in relation to both Dasein and temporality since Dasein can have ecstasy through the temporalizing of time. Referring to temporality as “the primordial outside-of-itself in and for itself,” Heidegger contends that “we therefore call the phenomena of the future,

²⁸ Corrington, xxii.

²⁹ Corrington, xxii.

³⁰ Justus Buchler, *Metaphysics of Natural Complexes*, ed. Kathleen Wallace, Armen Marsoobian, and Robert S. Corrington, Expanded edition (Albany: State University of New York Press, 1989), 31.

the character of having been, and the Present, the ‘ecstases’ of temporality.”³¹ Corrington explains that the notion of ecstasy signifies “the movement of self-othering, of standing outside of the point of origin.”³² By removing the priority of time, Corrington extends the notion of ecstasy. For Corrington, “time is not more an order of orders than space is.”³³ In this way, Corrington accomplished the generalization of ecstasy, which can include not only the human process but also other entities. Corrington maintains that “nature is itself ecstatic” in that the process of evolution can be understood as that of ecstasy.³⁴ He also points out that “while Heidegger confined the ecstatic moment of self-transcendence to the human process, ecstatic naturalism recognizes that it is a fundamental feature of nature.”³⁵

Corrington describes that ecstatic naturalism has been made possible by the convergence of three currents of thought: pragmatism, naturalism, and psychoanalysis.³⁶ Each current of thought provides its own perspective, showing several aspects of ecstatic naturalism. First, from the perspective of pragmatism, ecstatic naturalism is understood as

³¹ Martin Heidegger, *Being and Time*, trans. Robinson Macquarrie, John Edward (New York: Harper Perennial Modern Classics, 2008), 377.

³² Robert S. Corrington, *Ecstatic Naturalism: Signs of the World* (Bloomington: Indiana University Press, 1994), 39.

³³ Robert S. Corrington, *Nature and Spirit: An Essay in Ecstatic Naturalism* (New York: Fordham University Press, 1992), 57.

³⁴ Corrington, *Ecstatic Naturalism*, 39.

³⁵ Corrington, 39.

³⁶ Corrington, 4.

a semiotic theory which is located “within an evolutionary nature.”³⁷ Specifically, ecstatic naturalism has been inspired by Peirce’s semiotic theory, which has a triadic model of sign, object, and interpretant. A sign stands for its object; the interpretant is “the ground of the sign relation.”³⁸ Peirce contends that “the sign is always embedded in a relation to other signs and to objects that are not contained within the sign itself.”³⁹ Peirce affirms that the triad of sign, object, and interpretant can be applied beyond the human process through nature and its orders.⁴⁰ In the view of semiosis, ecstasy signifies the ceaseless process of the combination and separation between signs and objects. The term naturalism in ecstatic naturalism describes that a tremendous number of semiotic processes have happened in evolution within nature.

Second, ecstatic naturalism can be described as a naturalism. Corrington explains that ecstatic naturalism “emerges out of the creative tensions between descriptive and honorific forms of naturalism.”⁴¹ Descriptive naturalism emphasizes “the utter indifference of nature to human aspiration and need.”⁴² On the contrary, honorific naturalism asserts that the power of spirit transforms not only nature but also human beings. In order to find the unique character of ecstatic naturalism, we need to note that

³⁷ Corrington, 7.

³⁸ Corrington, 117.

³⁹ Corrington, 32.

⁴⁰ Corrington, 32.

⁴¹ Corrington, 60.

⁴² Robert S. Corrington, *A Semiotic Theory of Theology and Philosophy* (Cambridge: Cambridge University Press, 2009), 25.

ecstatic naturalism views nature as having two dimensions: nature naturing and nature natured. Corrington defines nature naturing as “nature perennially creating itself out of itself alone” and understands nature natured as “the innumerable orders of the world.”⁴³ Honorific naturalism is mainly related to nature naturing while descriptive naturalism is concerned with nature natured. Unlike other naturalisms, ecstatic naturalism is grounded in the view that there is the fundamental difference between “the potencies of nature” and “the innumerable orders of signification within the world.”⁴⁴

Third, ecstatic naturalism can be fathomed from the perspective of psychoanalysis. Psychoanalysis including postmodern psychoanalysis has a strong interest in the unconscious. Corrington points out that Kristeva employs the notion of the chora, “the open space or womb lying within the unconscious” and opens up “the door to a larger conception of the self,” which can be equated with “the cosmic and natural forms of signification.”⁴⁵ Similarly, ecstatic naturalism seeks to move toward and grasp the rhythm of the unconscious of nature beyond the unconscious of the self. Just as psychoanalysis analyzes the psyche of the self by attending to human emotions such as joy, sadness, and fear, so ecstatic naturalism gives an account for the life of signs by using human emotions. Corrington contends that “ecstatic naturalism lives out of the dialectic between the exhilaration of new power and meaning and melancholy tinged with the loss of power and meaning.”⁴⁶

⁴³ Corrington, *Nature and Nothingness*, 5.

⁴⁴ Corrington, *Ecstatic Naturalism*, 19.

⁴⁵ Corrington, 10.

⁴⁶ Corrington, 39–40.

Unconsciousness to Consciousness

In order to explore ecstatic naturalism from the perspective of consciousness, we need to find how ecstatic naturalism employs the notion of consciousness and unconsciousness. We can notice essential features of ecstatic naturalism by looking into it in terms of consciousness, just as pragmatism, naturalism, or psychoanalysis presents its own perspective on ecstatic naturalism. However, this paper focuses on the division between consciousness and unconsciousness rather than on the notion of consciousness itself because the division is a main difference between classical phenomenology and ecstatic naturalism.

Corrington's conception of consciousness and unconsciousness is different from that of Husserl or Heidegger. Theoretically speaking, since unconsciousness is the opposite of consciousness, the clarification of unconsciousness can lead us to grasp the essential notion of consciousness. However, the notion of unconsciousness is as elusive as that of consciousness. Corrington distinguishes between the conscious and the unconscious, whereas Husserl views unconsciousness as part of consciousness in that unconsciousness plays a significant role in awakening consciousness. Since Husserl mainly focuses on the intentionality of consciousness, he does not give a sufficient account of unconsciousness. However, he refers to unconscious intentionalities by asserting that "it would be the place for those repressed emotions of love, of humiliation, of resentiments, and the kinds of behavior unconsciously motivated by them."⁴⁷ He acknowledges the role of unconsciousness such as instinct, drives, or interests, but he

⁴⁷ Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston, Ill: Northwestern University Press, 1970), 237.

does not distinguish them from conscious intentionalities. Husserl looks upon perceptual acts, desire, interest as belonging to consciousness inasmuch as they awaken, affect, lead to a theme for consciousness. Consciousness is the crucial focus of Husserl's phenomenology. Husserl draws a nebulous boundary between consciousness and unconsciousness. For him, the "starting point for the analysis of consciousness is the waking ego" and "other forms of consciousness" such as sleep, dreaming, or coma have to be understood as "modifications of this primary wakefulness."⁴⁸

Unlike Husserl, Heidegger purposely annihilates the division between consciousness and unconsciousness. While Husserl's starting point is the waking ego with consciousness, Heidegger's fundamental understanding of the human being commences with Dasein. By employing the term Dasein, Heidegger understands the human being as being-in-the-world, being with things and others. According to Heidegger, the existential meaning of Dasein is care.⁴⁹ Also, he asserts that Dasein radically differs from other entities since Dasein is "ontically distinguished by the fact that, in its very Being, that Being is an issue for it."⁵⁰ That is to say, in Heidegger's view, Dasein understands itself with relation to Being, and its fundamental structure is constituted by care, which is far from consciousness. Heidegger writes that "that in the

⁴⁸ Dermot Moran, *Edmund Husserl: Founder of Phenomenology*, 1 edition (Cambridge, UK ; Malden, MA: Polity, 2005), 143.

⁴⁹ Heidegger, *Being and Time*, 65.

⁵⁰ Heidegger, 32.

face of which one has anxiety is characterized by the fact that what threatens is nowhere.”⁵¹ In his view, we cannot notice where anxiety comes from.

While Heidegger intentionally removes a blurred division between consciousness and unconsciousness, Corrington brings back the boundary between the two by referring to the unconscious of nature, the unconscious of the self, and the conscious of the self. As a matter of fact, Corrington does not articulate his thoughts about consciousness and unconsciousness. He just points out that the notion of consciousness is understood in an emergentist perspective, not in any reductive view.⁵² He opens up the possibility of broadening the concept of consciousness and keeps using the division between consciousness and unconsciousness. Corrington’s understanding of unconsciousness has parallels in that of Freud or Jung. Freud refers to the unconscious as the mental process of which we cannot be aware, emphasizing dreams as the proof of the unconscious. Similarly, Corrington takes it for granted that dreams are representative of the unconscious, claiming that deep dreams are products of the unconscious of nature inasmuch as it “struggles to break into the self-in-process.”⁵³ Also, Corrington asserts that the unconscious is in “sheer otherness.”⁵⁴ The sheer otherness of the unconscious signifies that the unconscious is so alien to the self that it cannot be neither controlled nor predicted. He contends that “as the unconscious of nature, nature naturing can never be

⁵¹ Heidegger, 231.

⁵² Corrington, *Nature and Nothingness*, 63.

⁵³ Corrington, 64.

⁵⁴ Corrington, *A Semiotic Theory of Theology and Philosophy*, 53.

opened out by any method, however powerful.”⁵⁵ Corrington suggests a way that we can approach nature naturing. He writes: “The best we can do is to combine ordinal phenomenology on the one side with a careful use of Peirce’s abduction that goes from what is observed to the assumed necessary conditions for that manifestation, on the other side.”⁵⁶

Corrington’s division between consciousness and unconsciousness leads us to recognize the relation of the unconscious to the conscious. As Husserl contends that consciousness has its directedness toward objects out there, Corrington’s division between consciousness and unconsciousness denotes that the unconscious has directedness toward the conscious. Drawing attention to unconsciousness rather than consciousness, Corrington rejects Husserl’s idea that we can recognize pure consciousness. He categorizes nature into the unconscious of nature, the unconscious of the self, and the conscious of the self. Although Corrington does not clearly explain what consciousness is, his division of nature has the advantage of suggesting the relationship between the conscious and the unconscious in a larger context. Many scholars have attended to the relationship between the conscious and the unconscious of the self. However, Corrington notes the relationship between unconsciousness of the self and the unconscious of nature. The unconscious of the self, he claims, can listen to the unconscious of nature, just as a servant obeys the master.⁵⁷ First, within the self, “the

⁵⁵ Corrington, *Nature and Nothingness*, 114.

⁵⁶ Corrington, 114.

⁵⁷ Corrington, *A Semiotic Theory of Theology and Philosophy*, 50.

unconscious,” Corrington asserts, “must struggle toward consciousness in order to fulfill its own developmental teleology.”⁵⁸ When it comes to the relationship between the self and nature, he holds that “the unconscious of the self is...the servant of the underconscious of nature.”⁵⁹ He refers to the unconscious of the self as the “gateway to the underconscious of nature.”⁶⁰ As a result, the conscious of the self is related to the unconscious of nature. That is to say, the unconscious of nature is the source, the unconscious of the self is a via point, and the conscious of the self is a destination. In Corrington’s view, the unconscious of nature flows to the conscious of the self.

According to Corrington, nature has a flow within itself between the unconscious of nature and the conscious of the self. By noticing the flow from the unconscious to the conscious, ecstatic naturalism shows the possibility that consciousness is objectified by the unconscious. Generally speaking, consciousness as a subject objectifies objects. In Cartesian dualism, the mind as a subject objectifies objects out there. Also, Husserl claims that consciousness as a subject relates itself to objects. However, ecstatic naturalism notes that the direction of the flow between the conscious and the unconscious is the opposite of that between subject and object. The unconscious of nature, Corrington claims, infiltrate conscious beings by various methods. Involution is a striking example. He affirms that involution can happen in quite a few species which have consciousness or

⁵⁸ Corrington, 50.

⁵⁹ Corrington, 50.

⁶⁰ Corrington, 245.

the rudiments of consciousness.⁶¹ In relation to evolution, he explains involution as “a potency within nature that works in tandem with evolution at the upper end of the scale of life.”⁶² Like evolution, involution happens in organisms making a difference to them, but they cannot make it happen. Involution is like the wind blowing from the unconscious of nature. Corrington points out that involution “enters into the selving process like the wind of spirit to blow open a novel aspect of experience on the edges of awareness.”⁶³ Involution is a way the unconscious of nature stimulates the self and enhances the selving process. In this sense, Corrington describes involution as “a pulsation or microburst of pure expanding energy that cracks encrusted semiotic shells and clears a space for the rapid unfolding of novel semiosis.”⁶⁴ Involution sporadically happens in human beings “when there is enough surplus energy and free semiotic space for a quickening of evolutionary possibilities on the spiritual level.”⁶⁵

According to ecstatic naturalism, while unconsciousness objectifies and penetrates consciousness, human consciousness has limitations on its ability of connecting with unconsciousness. To borrow Husserl’s term *intentionality*, ecstatic naturalism would affirm that consciousness has limitations on intentionality. Corrington holds that the conscious can penetrate neither the unconscious of the self nor the

⁶¹ Corrington, *Nature’s Sublime*, 114.

⁶² Corrington, 114.

⁶³ Corrington, 115.

⁶⁴ Corrington, 122.

⁶⁵ Corrington, 120.

unconscious of nature. He writes that the door to “the unconscious momenta of nature naturing” is “forever shut to finite selves.”⁶⁶ In Corrington’s view, nature will not allow finite selves to open the door to the unconscious of nature.

Although ecstatic naturalism seems to be compatible with Neoplatonism in that both of them focus on a directional flow in nature, the former differs from the latter because Corrington understands that the unconscious of nature cannot be regarded as consciousness or mind. Plotinus claims the original Being emanates its own idea, thought, or consciousness to every being in the world. In contrast, Corrington contends that there is a deep chasm between nature nated and nature naturing. According to him, even if nature naturing has consciousness, human beings cannot notice the intention of nature naturing. For example, involution has nothing to do with a conscious Being in nature although involution delivers energy to human beings from nature naturing. Corrington connects involution with god-ing in that involution signifies “the activity of a natural energy or potency that enters into the selving process as-if from a deity” rather than “an actual divine being of some kind.”⁶⁷ Corrington, however, resists any possibility that involution is associated with God. “The source of god-ing,” Corrington points out, “is not a or the god, but a potency within nature itself that ‘descends’ into beings funded with mind and the appropriate amount and type of semiosis.”⁶⁸ For Corrington, involution is an invasion of the unconscious of nature into consciousness, but it does not provide the

⁶⁶ Robert S. Corrington, *Nature’s Religion* (Lanham, Md: Rowman & Littlefield Publishers, 1997), 163.

⁶⁷ Corrington, *Nature’s Sublime*, 115.

⁶⁸ Corrington, 116.

self with any specific meaning for the invasion. In this way, his division between consciousness and unconsciousness presents the crucial characteristics of ecstatic naturalism.

2.3. Nothingness and the Spirit

Betweenness, Nothingness, and Human Consciousness

The essential character of ecstatic naturalism centers around the division between the unconscious of nature and the innumerable orders of nature. To investigate ecstatic naturalism in terms of consciousness is to explore the meaning of the division between nature naturing and nature natured with regard to consciousness. Corrington writes that “the natural division between nature naturing and nature natured is the primordial ecstasy of nature itself.”⁶⁹ Corrington’s natural division is analogous to Heidegger’s ontological division. Heidegger employs the notion of the ontological difference in order to distinguish between Being and beings.⁷⁰ Although the notion of nature naturing cannot be equated with that of Being, the ontological difference can be applied to the relationship

⁶⁹ Corrington, *Deep Pantheism*, 8.

⁷⁰ Martin Heidegger, *The Basic Problems of Phenomenology*, trans. Albert Hofstadter, Revised Edition (Bloomington: Indiana University Press, 1988), 120.

between nature naturing and nature natured. Since nature naturing is not an order within nature, nature naturing is ontologically different from nature natured.

Corrington compares his notion of the ontological difference with that of Heidegger, articulating his thoughts about the abyss between nature naturing and nature natured. Heidegger maintains that something is taking place between Being and beings. He calls it Ereignis, which can be translated into event, appropriation, appropriating event, or enowning.⁷¹ For Heidegger, the betweenness in the relation of beings to Being is not so much a barricade separating them as a connector holding them together. Heidegger asserts that the betweenness is open to Dasein, who is “enowned by Being itself—Being that holds sway as nothing other than enowning.”⁷² In his view, enowning stands for the relationship between Being and beings. Being owns beings; beings own Being through Ereignis. Heidegger writes: “A being is. Being holds sway. Being (as enowning) needs beings so that being may hold sway.”⁷³ Explaining the notion of Ereignis, Polt writes that “Being is not universal and eternal, but instead belongs to us, as the destiny of our particular community—and just as Being belongs to us, we belong to Being.”⁷⁴

Heidegger asserts that Ereignis as the nexus between Being and beings happens through language. In his view, language is not so much one of human capacities as a

⁷¹ Polt, *Heidegger*. 146.

⁷² Martin Heidegger, *Contributions to Philosophy*, trans. by Kenneth Maly and Parvis Emad (Bloomington, Ind: Indiana University Press, 2000), 19.

⁷³ Heidegger, *Contributions to Philosophy*. 22.

⁷⁴ Polt, *Heidegger*, 148.

container within which human beings exist. In *Letter on Humanism*, Heidegger writes that “language is the house of Being,” in which “man ek-sists by dwelling, in which he belongs to the truth of Being, guarding it.”⁷⁵ In other words, he points out that “language is at once the house of Being and the home of human beings.”⁷⁶ According to Heidegger, language is related to building; building belongs to dwelling; dwelling involves thinking.⁷⁷ Although Heidegger intentionally tries to elude the term consciousness, the notion of Heidegger’s thinking is analogous to that of Husserl’s consciousness. That is to say, for Heidegger, consciousness belongs to language—the house of both Being and beings. Heidegger, therefore, holds that poets such as Rainer Maria Rilke can lead us to grasp the glimpse of the enigmatic aspect of Being. He writes that “in the age of the world’s night, the abyss of the world must be experienced and endured.”⁷⁸ According to Heidegger, poets are those who can fathom the abyss.

While Heidegger locates Ereignis between Being and beings, Corrington places emptying at the chasm between nature naturing and nature natured. Corrington explains how emptying would be a better word for describing betweenness than Ereignis. He claims that the emptying can deliver “the pouring out of plenitude from the elusive ground.”⁷⁹ According to Corrington, the emptying serves as a wall between nature

⁷⁵ Martin Heidegger, *Basic Writings*, Revised, Expanded edition (New York: Harper Perennial Modern Classics, 2008), 236–37.

⁷⁶ Heidegger, 262.

⁷⁷ Heidegger, Martin, *Poetry, Language, Thought*, trans. Hofstadter, Albert (New York: HarperCollins, 2001), 158.

⁷⁸ Heidegger, *Basic Writings*, 90.

⁷⁹ Corrington, *Ecstatic Naturalism*, 127.

naturing and nature natured, which makes it possible for nature natured to keep a distance from the chaos of the potencies of nature. The character of emptying is obviously explained when it is compared with that of Ereignis. For Heidegger, the betweenness prevails for attraction, whereas for Corrington the emptying subsists for repulsion. Corrington writes that “Heidegger can speak of the intimacy between Being and any being within the world,” while the emptying “insists that the fundamental reality is that of expulsion.”⁸⁰

Corrington develops the notion of emptying more fully in his later book *Nature and Nothingness*, in which the notion of nothingness replaces that of emptying. He holds that nothingness is not only at the abyss between nature naturing and nature natured but also at the heart of nature naturing.⁸¹ Corrington claims that just as nature naturing is correlated to nature natured, so nothingness has to do with every order in nature natured. He suggests four modes of nothingness: holes in nature, totalizing nothingness, naturing nothingness, and encompassing nothingness.⁸² The first two modes are concerned with nature natured including the human process; the third form is related to nature naturing; the fourth mode is the largest concept surrounding nature itself. In Corrington’s view, the first two types represent that nothingness haunts orders including human beings although nature naturing is in sheer otherness. Corrington describes nothingness as “an endless stream of differently modulated nihilating acts that enable orders to prevail at all in a

⁸⁰ Corrington, 128.

⁸¹ Corrington, *Nature and Nothingness*, 117.

⁸² Corrington, 27–28.

nature that has no order of orders to shape and direct it to divine ends.”⁸³ He views naturing nothingness as the core of nature naturing, which facilitates the plenitude of nature natured. Encompassing nothingness involves the “fissuring between nature naturing and nature natured.”⁸⁴ Furthermore, he refers to encompassing nothingness as “full emptiness” or “the void that is the surround of all surrounds.”⁸⁵ For Corrington, nothingness is not so much a static abyss as a dynamic, vibrating crack.

Corrington’s notion of nothingness can be regarded as an extension of Heidegger’s conception of *Lichtung*. Heidegger employs in his later books the concept of *Lichtung*, which is analogous to that of nothingness. *Lichtung* can be translated into “clearing,” which can be experienced when we come out of dense forest and into a place free of trees.⁸⁶ Heidegger contends that thinking should seek for *Lichtung* since *aletheia*, unconcealment, is *Lichtung* which “grants Being and thinking and their presencing to and for each other.”⁸⁷ He urges us to keep on the process of thinking toward *Lichtung*. Heidegger writes in *The End of Philosophy and the Task of Thinking* that “the task of thinking would then be the surrender of previous thinking to the determination of the matter for thinking.”⁸⁸ Similarly, Corrington holds that human consciousness should be cleared of objects by the act of nihilation. In his view, nothingness can stimulate our

⁸³ Corrington, 126.

⁸⁴ Corrington, 115.

⁸⁵ Corrington, 145.

⁸⁶ Heidegger, *Basic Writings*, 441.

⁸⁷ Heidegger, 445.

⁸⁸ Heidegger, 449.

thinking process—making connections between consciousness and objects—by its nihilating acts. While for Heidegger, *Lichtung* is tightly related to Being, for Corrington nothingness pervades the encompassing nature including both nature natured and nature naturing.

Ecstatic naturalism does not definitely give an account of the relationship between nothingness and consciousness, but it implies that only human beings can recognize nothingness in nature. In ecstatic naturalism, to realize nothingness can be a goal of human consciousness because “the primary means for overcoming patriarchy comes from the nothingness that nihilates all structures of ontological priority.”⁸⁹ Also, Corrington writes that “the long standing goal of ecstatic naturalism...has been to free the Selving process from the tyranny that ultimately lies in its own armored unconscious.”⁹⁰ He understands human evolution as the process of freeing the human being, claiming that “much of human evolution has been devoted to ways to lessen” the sovereign power of the unconscious “over the weak powers of consciousness and individuation.”⁹¹ As mentioned above, ecstatic naturalism claims that the unconscious of the self is influenced by the unconscious of nature, because “the unconscious of the self is...the servant of the underconscious of nature.”⁹² For Corrington, the tyranny of the unconscious means that the self is subjected to ontological priority. According to ecstatic naturalism, the self

⁸⁹ Corrington, *Nature and Nothingness*, 156.

⁹⁰ Corrington, 156.

⁹¹ Corrington, *Nature's Sublime*, 45.

⁹² Corrington, *A Semiotic Theory of Theology and Philosophy*, 50.

should try to be conscious of nothingness in order to overcome the patriarchy of ontological priority.

The Spirit and the Selving Process

Although Corrington views the spirit as irrelevant to consciousness, he makes a connection between the spirit and consciousness by referring to the spirit as “a kind of postconsciousness.”⁹³ As a matter of fact, the notion of nothingness has a fatal weakness that can lead to chaos in human communities, inasmuch as nothingness puts absolute value on the maximization of the selving process. In the selving process, an individual’s consciousness can conflict with someone else’s. Corrington suggests that the spirit may serve as postconsciousness that is “open to the need to reduce the clashes among selves when they involve the deeper unconscious of the selving process.”⁹⁴ He explains postconsciousness as “an awareness that at least has its own way of recognizing the limitations of conscious selves” and compares it to “a mobile field of energy that can sense gradients and respond to them, but never as a conscious intentional agent.”⁹⁵ That is to say, the spirit can be called postconsciousness in that it influences every conscious self to reduce conflicts with others even though it does not have consciousness. In Corrington’s view, it is not clear how the spirit serves to lessen conflicts among selves,

⁹³ Corrington, 220.

⁹⁴ Corrington, 220.

⁹⁵ Corrington, 220.

because “the spirit must itself be ambiguous in its ontological structure.”⁹⁶ However, his notion of the spirit is deeply concerned with the principle of ontological parity, which provides a moral implication that “there can be no priority schemes in which one group of selves is held to be less real than another.”⁹⁷

Just as nothingness is deeply concerned with the division between nature naturing and nature natured, so the spirit is in operation in the betweenness. Ecstatic naturalism contends that the abyss between nature naturing and nature natured has at least two layers: emptying and the spirit. Emptying or nothingness prevails as the fissuring between nature naturing and nature natured and at the same time “provides the space within which the spirit can emerge.”⁹⁸ However, emptying falls short of explaining how the world has been filled with meanings. Corrington claims that emptying frees orders from both nature naturing and some other orders and that the spirit provides orders with meanings. He maintains that the spirit is indispensable to the process of ecstasy—the movement of self-othering—considering ecstasy itself as “the irruption of the spirit.”⁹⁹ As far as the human process is concerned, Corrington writes that “meaning comes to the self from the not-yet of the spirit, which lives out of the future.”¹⁰⁰ The spirit has to do

⁹⁶ Corrington, 221.

⁹⁷ Corrington, 213.

⁹⁸ Corrington, *Ecstatic Naturalism*, 127–28.

⁹⁹ Corrington, 39.

¹⁰⁰ Corrington, 127.

with hope in which we can keep the principle “not-yet,” which frees the self from the “idolatrous obsession with specific orders and their possible futures.”¹⁰¹

Corrington’s notion of spirit is different from that of spirit in the history of Western philosophy. Traditionally, the concept of spirit has been involved in the phenomenon of consciousness. The word spirit used to be understood as having a broader meaning or as signifying a primal principle, but, since Hegel, the concept of spirit has been brought back to the phenomenon of consciousness.¹⁰² Suggesting three domains—the unconscious of nature, the unconscious of the self, and the conscious of the self—Corrington locates the spirit between the unconscious of nature and the unconscious of the self. In his view, the conscious of the self cannot realize the intention of the spirit even if the spirit has any telos. Corrington writes that “there is not centered consciousness in the spirit that could be addressed by human consciousness, even though the spirit can be met in an I-Thou relationship.”¹⁰³ Corrington tries to resist “any concept of the between that would serve to give the Appropriation (by whatever name) a quasi-mystical or even anthropomorphic status.”¹⁰⁴ According to him, the spirit serves to help interpretation and produces momentum of self-othering; however, it does not grant specific, honorific meanings to human beings.

¹⁰¹ Corrington, *Nature and Spirit*, 159.

¹⁰² Wolfhart Pannenberg, *Historicity of Nature: Essays on Science and Theology* (Templeton Foundation Press, 2008), 106.

¹⁰³ Corrington, *A Semiotic Theory of Theology and Philosophy*. 166.

¹⁰⁴ Corrington, *Ecstatic Naturalism*. 126.

The spirit in ecstatic naturalism is analogous to Heidegger's Ereignis insofar as the spirit is tied to the process in which the self obtains meaning. While Heidegger grants a eulogistic character to Ereignis, Corrington engages in serious critique of Heidegger's optimistic view of the betweenness. In Corrington's view, emptying per se denotes the abyss between nature naturing and nature natured; the spirit lets us recognize the abyss. Corrington asserts that the spirit can help us to realize "the ontological difference as the difference that it is."¹⁰⁵

In ecstatic naturalism, the spirit works on consciousness in two ways. First, the spirit can lead the self into awareness of the ontological difference between nature naturing and nature natured. Without consciousness, otherness of nature naturing cannot be recognized. Although the spirit works on every order in nature, the awareness of the ontological difference can happen only in conscious beings. Second, the spirit serves to lessen clashes among conscious selves. According to Corrington, since the spirit is plurally located, it intensifies not only an individual's but also others' selving process. He writes that "the unique grace of the spirit empowers the self qua individual toward its own selving process and the selving processes of others."¹⁰⁶ Although the spirit is not regarded as having consciousness, ecstatic naturalism affirms that the spirit adjusts conflicts among conscious beings.

Corrington claims that the selving process is influenced by the spirit, which prevails in the betweenness empowering the self. Also, his notion of the selving process is deeply concerned with human consciousness because he understands selving as the

¹⁰⁵ Corrington, *Nature's Religion*, 163.

¹⁰⁶ Corrington, *A Semiotic Theory of Theology and Philosophy*, 217.

unique feature of the human being. Selving is explained in various ways because it is part of the human process—the highly complicated, multilayered phenomenon. Corrington writes that selving is “only fully present within the human process.”¹⁰⁷ He accounts for selving as “the built-in momentum that takes place from the barest origins of the fragile and nascent self through the externalizations of semiotic life, to the return of the lost object of the pre-self stage as condescended in the life and symbols of religion and art.”¹⁰⁸ Also, selving is described as “the most complete moment within the power of individuation, and not as a ubiquitous trait of nature.”¹⁰⁹ The selving process entails the awareness that the self is surrounded by a tremendous number of signs. Corrington asserts that what matters the most in the selving process is that selving is opened up and shaken by the natural difference between nature naturing and nature natured.¹¹⁰ In the selving process, on the one hand the self is conscious of life-worlds filled with signs; on the other hand, the self can recognize and immerse oneself in the momentum of the selving process that opens up oneself to the spirit that resides between nature naturing and nature natured. Selving can be understood as a process in which the self is correlated not only to the spirit but also to the innumerable orders of nature. Of course, the selving process is accompanied by the ability of human consciousness.

¹⁰⁷ Corrington, *Nature and Spirit*, 60.

¹⁰⁸ Corrington, *Nature's Sublime*, 33–34.

¹⁰⁹ Corrington, *Nature and Spirit*, 60.

¹¹⁰ Corrington, *Nature's Sublime*, 34.

In the selving process, consciousness can play a pivotal role in enhancing the self, inasmuch as the self has an intrinsic direction from the potential self to an actualized self.¹¹¹ According to Corrington, the selving process, “the goal or end of the psyche,”¹¹² ultimately leads the self “to create and contrive aesthetic/ethical products of great scope and power.”¹¹³ He contends that “an awareness of the natural difference...is crucial for the successful navigating of the selving process.”¹¹⁴ Corrington writes that “we humans are unique in that we can see and understand this ‘natural difference’ and experience the sheer awe that it inspires in us.”¹¹⁵ That is to say, “the selving process straddles the perennial fissuring between nature naturing and nature natured and receives ‘revelations’ from out of that ground and abyss.”¹¹⁶ In other words, human beings can consciously participate in the selving process under the pulsation of the spirit.

Ecstatic naturalism asserts that although the selving process is influenced by the spirit, it has nothing to do with meta-teleology in a traditional sense. He writes that “nature itself has no end beyond itself and the ends of the psyche are part of its own drive toward excellence.”¹¹⁷ From a broad perspective, Corrington’s view of teleology keeps

¹¹¹ Corrington, *Nature and Spirit*, 61.

¹¹² Corrington, *Deep Pantheism*, 30.

¹¹³ Corrington, 31.

¹¹⁴ Corrington, *Nature’s Sublime*, 47.

¹¹⁵ Corrington, 110.

¹¹⁶ Corrington, *Deep Pantheism*, 44.

¹¹⁷ Corrington, 30.

up with that of neo-Darwinians, according to which there is no directionality in natural history. The basic principles of neo-Darwinism—random mutation and natural selection—do not allow for any possibility of directionality. Although conscious organisms emerged in the history of evolution, Corrington contends that there is no directionality in evolution because nature does not guarantee the survival of conscious beings. Arguing against nature’s ultimate goal, he points out that “this view ignores the ubiquity of extinction in nature and the evolution of *Homo sapien sapiens* from antecedent forms that go back millions of years.”¹¹⁸

Relying on Peirce’s developmental teleology instead of meta-teleology related to an ultimate telos, Corrington claims that the selving process has the directionality of actualizing itself without concrete goals. According to ecstatic naturalism, human consciousness cannot secure ultimate, optimistic ends although it can reflect the influence of the spirit. To borrow Peirce’s word, the telos of selving is *developmental* within the process in which the self interacts with the innumerable orders of nature natured and with the spirit. Peirce explains developmental teleology by using the relationship between personality and consciousness. He points out that personality has something to do with “some kind of coordination or connection of ideas.”¹¹⁹ That is to say, a person cannot be viewed as a person if he or she does not have integrated ideas. In Peirce’s view, consciousness can be regarded as an essential means through which a person coordinates or connects his or her ideas. He, therefore, writes that “personality, so far as it is

¹¹⁸ Corrington, *Nature and Nothingness*, 151.

¹¹⁹ C. S. Peirce, *The Essential Peirce: Selected Philosophical Writings*, ed. Nathan Houser and Christian J. W. Kloesel (Bloomington: Indiana University Press, 1992), 331.

apprehended in a moment, is immediate self-consciousness.”¹²⁰ Also, Peirce understands that development is a key element of personality; personality has to grow. In this sense, Peirce maintains that “in the case of personality this teleology is more than a mere purposive pursuit of a predeterminate end; it is a developmental teleology.”¹²¹ According to Peirce, personality grows by being conscious of developmental telos. He writes: “Were the ends of a person already explicit, there would be no room for development, for growth, for life; and consequently there would be no personality.”¹²² Peirce contends that telos can spontaneously change depending on one’s desire and the environment. The term *developmental* means the changeability of telos. In this way, the selving process with developmental teleology is entwined with consciousness.

In ecstatic naturalism, the self is influenced but not determined by the spirit. Corrington’s ecstatic naturalism is similar to Heidegger’s phenomenology in that they claim that human consciousness is influenced by the spirit. However, since the selving process of ecstatic naturalism is grounded on developmental teleology, it does not guarantee ultimate, optimistic endings. For the selving process, uncertainty is necessary because of developmental teleology. Corrington resists meta-teleology in a traditional sense because it connotes that the divine or the spirit takes the lead in natural and human history. He criticizes that Heidegger gives Ereignis an “eulogistic and heroic character that could easily play into the hands of the horrible social forces of the Nazi

¹²⁰ Peirce, 331.

¹²¹ Peirce, 331.

¹²² Peirce, 331.

movement.”¹²³ If we believe that the spirit takes the initiative in history, we will have an optimistic, naïve view of history. Corrington rejects such an optimistic view based on the role of the spirit because he understands the spirit as energy or power.¹²⁴

Ecstatic Naturalism and Human Consciousness

We can divide consciousness into two: general consciousness and human consciousness. Husserl, Heidegger, and Corrington mainly deal with human consciousness in their thoughts, but some of their theories about consciousness can be applied to entities other than human beings. According to them, human consciousness, which includes subjective experience, has its own uniqueness. Since Heidegger attended to temporality in *Sein und Zeit*, philosophical approaches to consciousness has been mainly concerned with human beings. These anthropocentric approaches to consciousness do not take into consideration the possibility that entities other than human beings can have consciousness. However, Husserlian phenomenology does not exclude the possibility that animals have consciousness. Assuming that consciousness is subjective experience, the notion of consciousness can be applied to every organism. Furthermore, ecstatic naturalism can extend the doctrine of intentionality to every entity; every sign can be thought of as having consciousness in that it can experience an object.

¹²³ Corrington, *Ecstatic Naturalism*, 126.

¹²⁴ Corrington, *Nature's Sublime*, 128.

Therefore, human consciousness needs to be described more specifically in comparison with general consciousness.

Ecstatic naturalism illuminates a role of human consciousness more clearly than classical phenomenology does. The major contribution of phenomenology, I claim, is to help us to realize what we should do with consciousness. According to phenomenology, consciousness enables us to objectify things out there. It is not only a function of consciousness but also a role of consciousness. Therefore, we should keep doing the process of consciousness and continue to do the act of referring in order to have a new way of seeing objects. Descartes says that “cogito, ergo sum,” but phenomenologists would argue that we exist to think. According to ecstatic naturalism, human beings can accelerate the semiotic process of thinking by noticing that signs are signs. Corrington affirms that human beings have the ability to recognize that signs are signs. When we notice signs as signs, we have the opportunity of interpreting signs in new ways and of connecting the signs to new objects. In Corrington’s view, the more intensely we stimulate consciousness, the more vigorously we are supposed to intercommunicate with objects. Corrington’s notions of the spirit and the selving process lead us to recognize more clearly what we should do with consciousness. According to ecstatic naturalism, intentionality of consciousness can be regarded as one of the relationships between signs and objects. Semiotic processes naturally happen in nature, and we human beings can consciously accelerate the processes to make connections with objects. Human consciousness can have the stronger tendency to objectify things than general signs. Nagel writes that “human consciousness is not merely passive but is permeated, both in action and in cognition, with intentionality, the capacity of the mind to represent the

world and its own aims.”¹²⁵ Corrington also claims that human consciousness is encouraged to maximize one’s value by the spirit. According to ecstatic naturalism, the intentionality of human consciousness can be augmented not only by human awareness but also by the influence of the spirit.

Ecstatic naturalism can solve the problems which are likely to happen when the role of human consciousness is emphasized. Emphasis on the role of consciousness can give rise to two problems: violence and optimism. First, ecstatic naturalism prevents the intense tendency of intentionality from reaching the state of violence. The strong tendency of intentionality of consciousness is inclined to cause violence. The violent propensity of consciousness has been reflected in most religions for a long time. Intentionality of consciousness is entwined with directionality and teleology, both of which are deeply concerned with religion because we cannot be aware what will happen in the end. Most religions try to reduce chaos and ambiguity, requiring teleology to solve the problem of suffering and evil. Corrington notices that “for millennia most religions have been at war with nature and have been driven by systemic violence.”¹²⁶ His investigation into the violence of religions represents how human beings can turn violent because of the intentionality of consciousness. Since ecstatic naturalism leads us to consciously enhance the process of objectifying objects under the influence of the spirit, it can encourage the violent tendency of consciousness. From the perspective of consciousness, the strong tendency of intentionality of consciousness underlies the violence of religions. However, ecstatic naturalism can preclude us from having the

¹²⁵ Nagel, *Mind & Cosmos*, 68.

¹²⁶ Corrington, *Nature and Nothingness*, 1.

tendency of violence because the core of ecstatic naturalism is to keep in mind that we cannot overcome the natural difference between nature naturing and nature natured. In Corrington's view, human consciousness can avoid violence by being conscious of its own limitation, the impossibility of overcoming the natural difference.

Second, ecstatic naturalism rejects optimism about the future of the human being by claiming that nature has no telos. Assuming that human consciousness can be linked to something non-physical, we are likely to fall into extreme optimism. We could conceive that something like the mind of universe communicates with human consciousness. Ecstatic naturalism claims that consciousness is connected with unconsciousness as something unobservable, but it denies optimism because "nature itself has no end beyond itself and the ends of the psyche are part of its own drive toward excellence."¹²⁷ Also, Corrington claims nature does not have any optimistic directionality because "nature naturing prevails prior the divide between good and evil."¹²⁸ In ecstatic naturalism, Corrington suggests that fourthness, which can be equated with betweenness, does not "promise anything in the infinite long run."¹²⁹

Based on the classical phenomenology of Husserl and Heidegger, ecstatic naturalism extends the notion of consciousness and illuminates the uniqueness and the limitations of human consciousness. Although Husserl's phenomenology is not restricted only to human beings, it is mainly concerned with human beings. His conception of consciousness can hardly be applied to entities other than human beings. Heidegger's

¹²⁷ Corrington, *Deep Pantheism*, 30.

¹²⁸ Corrington, *Nature and Nothingness*, 18.

¹²⁹ Corrington, 23.

notion of consciousness is so anthropocentric that consciousness of entities other than human beings is ignored. Similarly, Corrington mentions consciousness as relating to human consciousness, but ecstatic naturalism shows that the fundamental structure of every entity is the same as that of consciousness. According to ecstatic naturalism, just as human consciousness has its relationship with an object, every sign has its object. In this way, the notion of consciousness is applicable to every entity. Also, ecstatic naturalism shows the uniqueness and the limitations of human consciousness by explaining the selving process. Corrington claims that human consciousness can recognize not only the life-worlds filled with signs but also the natural difference between nature natured and nature naturing. Furthermore, he points out that awareness of nothingness leads the self to be free from the tyranny of the unconscious. Only human beings, according to ecstatic naturalism, can try to carry out completely novel semiosis without restriction. Obviously, Corrington acknowledges that human consciousness has special characteristics in comparison with general consciousness. He, however, does not grant a guarantee of success to us even if we are conscious of what only human beings can be conscious of. In ecstatic naturalism, this uncertainty of the human being is not only the limitations but also the ground of human consciousness.

3. GOD AND CONSCIOUSNESS IN YU YOUNG-MO'S THOUGHTS

3.1. Consciousness as the Core of Yu Young-mo's Thoughts

Yu Young-mo and Thinking

Yu Young-mo is a Korean thinker who is well versed not only in Christianity but also in Asian religious thoughts such as Buddhism, Confucianism, and Taoism.¹ He tried to integrate four major religions—Christianity, Buddhism, Confucianism, and Taoism—into a unified religious thought because he conceived that truth underlies every religion. It is widely accepted that Yu Young-mo was the first Korean thinker developing philosophy in modern Korean language, not in literary Chinese. He is not only a philosopher but also a theologian. Yu Young-mo lived the life of a Christian monk; his primary concern was to obtain perfect freedom in God. Since he engaged in religious practices such as meditation and mind-training, he attended to the role of thinking. Yu

¹ The XXII World Congress of Philosophy took place in Seoul, South Korea, from July 30th to August 5th in 2008. Yu Young-mo was highlighted as one of the most outstanding Korean philosophers.

Young-mo writes: “thinking is our radical nature, and we can reach heaven called enlightenment through thinking.”² Just as religious people have had interest in consciousness through the history of religion, so Yu Young-mo as a theologian pays attention to the issue of consciousness.

Prior to investigating Yu Young-mo’s thoughts in terms of consciousness, we need to notice that he employs the term *thinking* rather than consciousness. Strictly speaking, thinking is not the same word as consciousness, but it is evident that thinking is a process which occurs within consciousness. Thinking means the human activity of being intentionally aware of something; thinking is very often used for consciousness. William James, who is called the Father of American psychology, uses the term *thinking* in order to represent consciousness. He writes that “I use the word thinking...for every form of consciousness indiscriminately.”³ Yu Young-mo’s notion of thinking fundamentally corresponds to the generally accepted conception of consciousness in that it stands for intentional awareness. Therefore, in describing Yu Young-mo’s thoughts of thinking, the term consciousness can be used instead of thinking.

Although Yu Young-mo’s philosophy is based on his thoughts of religions, his focus is not so much on religions as on the importance of consciousness because he believes that consciousness is the true reality of the universe. He asserts that only thinking is true reality, denying the existence of the physical world. Yu Young-mo

² Young-mo Yu, *Daseok Yu Young-Mo Eolog*, ed. Young-ho Park (Seoul: Dure, 2002), 80.

³ William James, *The Principles of Psychology, Vol. 1*, Reprint edition (New York: Dover Publications, 1950), 224.

writes: “Does the sun or the moon really exist? No, it does not. What exists is only I and my thinking.”⁴ In his view, the substance of everything consists in the subject of thinking and in the activity of thinking. In this sense, Yu Young-mo claims that thinking is the essence of both the human being and human existence. He defines the human being as “a being who eats food and thinks.”⁵ According to him, a human being who does not think cannot be looked upon as a human being. Also, he compares human life to a flame that kindles and burns itself, emphasizing that “the inner flame of the flame of life is thinking.”⁶ He understands that the most crucial part of the human being is thinking. In his view, thinking per se can be regarded as the thinker. He writes: “I come out when I think. The flame of thinking kindles and I emerge from it. I occur from thinking.”⁷ In other words, thinking is not a mere thinking but a mother who bears human beings.

Yu Young-mo maintains that thinking is the only way the human being experiences divinity. He claims that we can meet with God only in our consciousness, not in the physical world. He writes: “the human being is a being of thinking and God is also a being of thinking.”⁸ According to him, the essence of the human being corresponds to that of God. In this sense, Yu Young-mo asserts that “God is where one thinks

⁴ Young-mo Yu, “Bich,” in *Daseok Ilji, Sang* (Yeonginbon, 1982), 855.

⁵ Young-mo Yu, “Balamjighan Sang,” in *Daseok Ilji, Sang* (Yeonginbon, 1982), 849–52.

⁶ Young-mo Yu, “Jeong(2),” in *Daseok Ilji, Sang* (Yeonginbon, 1982), 740–41.

⁷ Yu, 740.

⁸ Yu, *Daseok Yu Young-Mo Eolog*, 88.

(念在神在)”⁹ and that the subject of thinking is not only the thinker but also related to a being greater than the thinker. He maintains that “it is God who enables a human being to truly think” and that “if God does not grant us eol(the Holy Spirit), we cannot think.”¹⁰ Consciousness plays a crucial role in Yu Young-mo’s thoughts because the final goal of his philosophy is to reach divinity by thinking.

Subjective Consciousness

Yu Young-mo’s notion of consciousness differs from the general understanding of consciousness in that he divides thinking into subjective and non-subjective one. It is generally accepted that thinking is subjective. However, Yu Young-mo asserts that thinking can be subjective, but every thinking is not subjective. According to him, only thinking can be subjective because everything except thinking entails interactions with matter or others even though it takes place within one’s own body.¹¹ In this sense, he views that human experiences through sense organs are not subjective because they are the function of a body, whereas most philosophers regard sensory experiences as subjective acts. He contends that when an object of thinking exists outside the thinker, thinking is non-subjective. In contrast, when one thinks of oneself, the thinking is

⁹ Young-mo Yu, *Daseok Gangui*, ed. Daseok Hak-hoy (Seoul: Gyoyangin, 2016), 99.

¹⁰ Yu, *Daseok Yu Young-Mo Eolog*, 76.

¹¹ Jae-soon Park, *Daseok Yu Youngmoui Chulhakgwa Sasang* (Seoul: Hanul Academy, 2013), 50.

subjective. While Husserl's doctrine of intentionality asserts that consciousness is necessarily related to something, Yu Young-mo contends that consciousness can exist independently with no relation to something. In Yu Young-mo's view, only this kind of independent consciousness is subjective.

Yu Young-mo contends that only human beings can recognize themselves as subjects by thinking of themselves. For him, this is the uniqueness of human beings. He understands that only human beings can have subjective thinking because they can pay attention to themselves. In other words, even if an animal thinks of something, its thinking cannot be subjective because it is related to objects out there. Generally speaking, organisms other than human beings can have subjective experience, but for Yu Young-mo, their general subjective experience is not subjective. In this sense, he attends only to human consciousness because he understands that only humans have the ability of thinking of themselves.

According to Yu Young-mo, it is the subjective activity of thinking that can lead us to meet God, neighbors, and other entities as subjects. As mentioned above, he asserts that thinking is the only way that a human being can encounter the divine. He presupposes that only a subject can meet another subject. Yu Young-mo writes that "God is the subject of life and that a human being is the subject of thinking."¹² That is to say, in his view, when a human being recognizes oneself as subject through the process of thinking, he or she can meet with God, the subject of life. Also, he contends that when we recognize ourselves as subject through thinking, we can think of and make friends with

¹² Young-mo Yu, "Kkochpi," in *Daseok Ilji, Sang* (Yeonginbon, 1982), 825–28.

others.¹³ In other words, thinking bears a subject who realizes oneself as subject; only the subject can treat others as subjects. Yu Young-mo applies his claim to the relationship between a human being and matter. As a matter of fact, he affirms that every entity is a subject. He asserts that when we become a true subjective self by thinking, we can treat matter as subject. Yu Young-mo holds that matter includes divinity within itself and that matter should be considered as subject. Buddhism has a traditional view that matter should be treated as subject. The Korean Buddhist Seongcheol writes that “mountain is mountain, water is water.”¹⁴ It means that things such as mountain or water should be respected as a subject rather than as an object. Yu Young-mo’s thoughts reflect the traditional view of Buddhism. That is to say, he claims that if we realize ourselves as subject by thinking, we can meet with God, neighbors, and nature as another subject, not as an object. He conceives that when human beings and all other objects are treated as subjects, nature filled with life is revealed with their own character.¹⁵

For Yu Young-mo, augmenting subjectivity is the goal of consciousness. His understanding of consciousness is opposed to that of phenomenologists inasmuch as he claims that the direction of thinking can be toward the inside of the thinker. According to Yu Young-mo, consciousness can be subjective, and it should be subjective by focusing on the thinking of the thinker. He asserts that we can isolate ourselves from the outer world by the process of consciousness. Phenomenologists, on the contrary, maintain that it is impossible to separate consciousness from the world because consciousness is

¹³ Yu, “Jeong(2),” 740–41.

¹⁴ Wontek, *Seongcheol Seunim Sibong Iyagi* (Seoul: Kimyoungsa, 2001).

¹⁵ Yu, *Daseok Yu Young-Mo Eolog*, 435.

necessarily connected to objects out there. Yu Young-mo does not deny the relationship between consciousness and objects out there. However, he argues for the possibility of disconnection between consciousness and objects. He contends that the intentional direction of consciousness should be the inner self because consciousness of something out there hinders us from achieving subjectivity.

3.2. Bintanghande and Consciousness

Notion of Bintanghande

In order to investigate Yu Young-mo's conception of consciousness, it is necessary to understand the term *bintanghande* (빈탕한데) since he suggests *bintanghande* as the ultimate aim of consciousness. Yu Young-mo contends that *bintanghande* is a place where we can meet with God. He explains that *bintanghande* can be simply understood as a Korean word for *sunyata* (虛空, emptiness), one of Buddhist terminology.¹⁶ It is important to notice that *bintanghande* exists within one's consciousness rather than somewhere in the physical world. Yu Young-mo claims that we can separate ourselves from the outside world by concentrating on *bintanghande*.

¹⁶ Yu, 212.

According to him, since bintanghande is like a target in the mind, we can use it for religious practice.

We need to delve into bintanghande since bintanghande is central to Yu Young-mo's understanding of consciousness. As mentioned above, bintanghande can be understood as emptiness in which there is no existence of matter. More specifically, bintanghande is a compound Korean word which is composed of two words: bintang(빈탕) and hande(한데).¹⁷ Since the notion of bintang is analogous to that of physical emptiness, Yu Young-mo explains bintang by using empty space. He writes: "When we look at a flower, we just see the flower within the outline of the flower without being attentive to the empty space outside the flower. However, what makes the flower exist is emptiness."¹⁸ Physical emptiness can help us to understand bintang, but it cannot completely account for bintang. While physical emptiness can be found in the world, bintang cannot be located out there. Yu Young-mo holds that bintang is not so much the physical space of emptiness as "living emptiness" or "spiritual emptiness" where the divine resides.¹⁹ He explains that bintang can be found in one's mind because it is also the mind of God.²⁰

¹⁷ Park, *Daseok Yu Youngmoui Chulhakgwa Sasang*, 45.

¹⁸ Young-ho Park, *Jinliui Salam Daseok Yu Young-Mo (Ha)* (Seoul: Dure, 2001), 95.

¹⁹ Park, 372.

²⁰ Park, 97.

Hande(한데) supplements and enhances the meaning of bintang. Hande signifies outside, which is the opposite of inside. Yu Young-mo explains that inside means “in one’s mother’s arms, under a blanket, or inside of a house” while hande means “leaving the inside” or “a desolate place.”²¹ By employing the term hande, Yu Young-mo claims that one should leave a comfortable place in order to control the body and meet the divine. He points out that when one goes to hande, one feels not only lonely but also cool and fresh because hande has no blockage. It seems that hande is separated from inside, but hande is a pathway to inside. Yu Young-mo contends that if one occupies hande, hande includes inside.²² Explaining Yu Young-mo’s interpretation of Tao Te Ching, Park Young-ho clarifies the relationship between emptiness and form. Park Young-ho writes: “If emptiness is the sea, form is like fish in the sea. From the perspective of the sea, fish is in the sea. However, from the perspective of fish, there are fish and sea. In the view of emptiness, there is no form. In the view of form, there are form and emptiness.”²³ That is to say, Yu Young-mo claims that we should go to hande because hande is the whole including every form.

²¹ Young-mo Yu, “Bintanghande Majhyeo Noli,” in *Daseok Ilji, Sang* (Seoul: Yeonginbon, 1982), 891–92.

²² Yu, 891–92.

²³ Young-mo Yu and Young-ho Park, *Nojawa Daseok* (Seoul: Gyoyangin, 2013), 103.

Bintanghande, Sunyata, Wu, and Tian

The notion of bintanghande can be more clarified by comparing with similar concepts such as sunyata, wu, and tian. Yu Young-mo's thoughts are influenced by Buddhism, Taoism, Confucianism, and Christianity, but the notion of bintanghande has to be distinguished from sunyata, wu, and tian. First, bintanghande is analogous to sunyata of Buddhism in that both of them are concerned with emptiness, but Yu Young-mo distinguishes bintanghande from sunyata.²⁴ Sunyata represents the ultimate knowledge of the universe rather than the physical space of emptiness. Just as bintanghande is a key concept to Yu Young-mo's thoughts, so sunyata is the foundation of Buddhism. Yu Young-mo also points out that Buddhism can be summarized as emptiness(空).²⁵ Both bintanghande and sunyata can be translated as emptiness, which represents that there is no existence of matter. Of course, bintanghande as well as sunyata involves the meaning of emptiness. However, sunyata as the ultimate truth of the world means that every form or material does not have its essence because it is ever-changing without beginning or end. Matthieu Ricard points out that sunyata means that "the things we see around us, the phenomena of our world, lack any autonomous or permanent existence."²⁶ According to the principle of sunyata, even matter is emptiness. The Dalai

²⁴ Yu, *Daseok Gangui*, 506.

²⁵ Park, *Jinliui Salam Daseok Yu Young-Mo (Ha)*, 97.

²⁶ Matthieu Ricard and Trinh Xuan Thuan, *The Quantum and the Lotus: A Journey to the Frontiers Where Science and Buddhism Meet*, 42945th edition (Broadway Books, 2004), 13.

Lama writes that “things and events are ‘empty’ in that they do not possess any immutable essence, intrinsic reality, or absolute ‘being’ that affords independence.”²⁷

Unlike sunyata, bintanghande is a spot within the mind which we should reach rather than a principle or knowledge. Bintanghande can be approached only by thinking because it is not physically located. In Buddhism, thinking as one’s subjective activity is not important because “there is no thinker behind the thought.”²⁸ If sunyata is the essential truth of the universe, one should recognize it with one’s own consciousness. However, sunyata itself can annihilate one’s effort to obtain enlightenment in that it does not acknowledge the existence of the thinker. Fundamentally, Buddhism denies the existence of a soul or a self. Rahula writes: “the Buddha says that it is better for a man to take his physical body as self rather than mind, thought, or consciousness, because the former seems to be more solid than the latter, because mind, thought, or consciousness changes constantly day and night even faster than the body.”²⁹ On the contrary, Yu Young-mo holds that bintanghande should be the goal of thinking. Understanding human beings as the children of God, Yu Young-mo contends that we as the children of God should seek bintanghande, the mind of God.³⁰

²⁷ Dalai Lama, *The Universe in a Single Atom: The Convergence of Science and Spirituality*, Reprint edition (New York: Harmony, 2006), 47.

²⁸ Walpola Rahula, *What the Buddha Taught: Revised and Expanded Edition with Texts from Suttas and Dhammapada*, Revised edition (New York: Grove Press, 1974), 26.

²⁹ Rahula, 65.

³⁰ Park, *Jinliui Salam Daseok Yu Young-Mo (Ha)*, 97.

Wu(無) in Taoism is very similar not only to sunyata but also to bintanghande.

Like sunyata and bintanghande, wu can also be translated as emptiness. However, while sunyata indicates the knowledge of ultimate reality according to which everything of the universe is ever-changing without immutable essence, wu or bintanghande means absolute emptiness as the origin of nature. Tao Te Ching writes: “The unnamable is the eternally real. Naming is the origin of all particular things.”³¹ Wu is referred to as the unnamable because wu as emptiness cannot be named. The unnamable is the most radical origin because naming, the origin of concrete things, comes out of the unnamable. Although wu is absolute emptiness, it is not the opposite of fullness. Tao Te Ching explains the usefulness of wu by taking examples of a wheel, a pot, and a house.³² A wheel without the central hole cannot make the wagon move. A pot without the emptiness inside cannot hold what we want. A house provides us with the inner space. Wu signifies absolute emptiness rather than the opposite of fullness. Therefore, Molohasi points out that Tao Te Ching employs the term darkness(玄) to represent wu as absolute emptiness.³³

Bintanghande is suggested as the goal of consciousness, whereas wu stands for the ideal state of the mind. According to Yu Young-mo, we should try to reach

³¹ Lao Tzu and Sam Torode, *Tao Te Ching* (CreateSpace Independent Publishing Platform, 2013), 1.

³² Tzu and Torode, 11.

³³ Molohasi Desseuji, *Gongja Noja Seogga*, trans. Sim Useong (Seoul: Dongasia, n.d.), 171.

bintanghande through the process of thinking. On the contrary, Taoism encourages us not to make an effort to become wu because we are fundamentally wu. For example, Seungsan, a Korean Zen master in Zen Buddhism influenced by Taoism, urges us to stop thinking. He writes: “No thinking means empty mind; empty mind is before thinking. Your before-thinking is your substance.”³⁴ At this point, Yu Young-mo’s philosophy is the opposite of Taoism. Paradoxically, Taoism claims that the moment we try to return to wu, we cannot become wu. Taoism contends that returning to wu is the movement of Tao, the absolute principle underlying the universe.³⁵ Therefore, one of the major principles of Taoism is wu-wei(無爲), which means effortless action. According to Taoism, thinking hinders the self from reaching the true self. Tao Te Ching says that “thoughts weaken the mind”³⁶ and that we should empty our mind of all thoughts.³⁷ On the contrary, Yu Young-mo asserts that we should keep on thinking of bintanghande in order to meet with God.

Yu Young-mo’s thoughts of bintanghande are concerned with the Zen doctrine of no-mind. The Zen doctrine of no-mind describes a state in which one responds to things with non-discriminating mind.³⁸ If the essence of thinking is regarded as discriminating,

³⁴ Seungsahn, *Wanting Enlightenment Is a Big Mistake: Teachings of Zen Master Seung San* (Shambhala Publications, 2006), 59.

³⁵ Tzu and Torode, *Tao Te Ching*, 40.

³⁶ Tzu and Torode, 12.

³⁷ Tzu and Torode, 16.

³⁸ Daisetz T. Suzuki, *Zen Buddhism: Selected Writings of D. T. Suzuki*, ed. William Barrett, Reissue edition (New York: Doubleday, 1996), 183.

no-mind corresponds to non-discriminating mind. D. T. Suzuki explains that all three expressions—“non-discriminating prazja(wisdom)”, “to be free from affections”, “from the first not a thing is”—point to the state of no-mind.³⁹ In order to expound the doctrine of no-mind, he quotes some dialogues.

Yuan: When disciplining oneself in the Tao, is there any special way of doing it?

Hui-Hai: Yes, there is.

Yuan: What is that?

Hui-Hai: When hungry one eats; when tired, one sleeps.

Yuan: That is what other people do; is their way the same as yours?

Hui-Hai: Not the same.

Yuan: Why not?

Hui-Hai: When they eat, they do not just eat, they conjure up all kinds of imagination; when they sleep, they do not just sleep, they are given up to varieties of idle thought. That is why theirs is not my way.⁴⁰

The Zen doctrine of no-mind affirms that when one has conscious cravings to carry out a task, the task cannot be accomplished. In short, no-mind is to stop thinking. Yu Young-mo’s notion of thinking involves the Zen doctrine of no-mind because he contends that we should cease thinking about outside things. Even though eating or sleeping does not happen outside oneself, Yu Young-mo claims that it should not be the object of thinking because it does not aim at *bintanghande*. Paradoxically, Yu Young-mo maintains that we can stop thinking by thinking of thinking. In this sense, Park Jae-soon points out that Yu Young-mo’s notion of thinking is “thinking beyond thinking.”⁴¹ Zen Buddhism emphasizes that we should obtain non-discriminating mind in dealing with things by stopping thinking. In this sense, the Zen master Seungsahn emphasizes “only

³⁹ Suzuki, 183.

⁴⁰ Suzuki, 207.

⁴¹ Park, *Daseok Yu Youngmoui Chulhakgwa Sasang*, 67.

not knowing.”⁴² In contrast, Yu Young-mo stresses that non-discriminating mind is achieved by thinking of bintanghande.

According to Yu Young-mo, the purpose of the human being is to play aiming at bintanghande, which is the empty place without any interactions with matter or others. Bintanghande has to be distinguished from wu because the former requires one’s effort while the latter does not. Bintanghande is the place where God exists. Relying on the I Ching(周易) known as Book of Changes, Yu Young-mo maintains that focusing on bintanghande is the way we can encounter the divine since God is where one thinks(念在神在).⁴³ Also, Yu Young-mo agrees with another principle of the I Ching that when we meet God, we can see the ultimate knowledge of nature (窮神知化).⁴⁴

According to him, it is by thinking of bintanghande that we cannot only meet with God but also realize the essence of nature. While Zen Buddhists claim that we should have no-mind, Yu Young-mo contends that we should try to think of bintanghande. Yu Young-mo writes: “I think. I think for myself. The center of thinking is I. I am. I am true. I am not myself on earth but myself in heaven. I am eolna, eternal life.”⁴⁵

⁴² Seungsahn and Hyeongag, *Ojig Moleulppun* (Seoul: Mulbyeongjali, 2000), 140.

⁴³ Yu, *Daseok Gangui*, 99.

⁴⁴ This principle is from I Ching, which is an ancient Chinese divination text.

⁴⁵ Yu, *Daseok Yu Young-Mo Eolog*, 133.

Bintanghande involves the notion of tian(天), a major principle of Confucianism.

In Confucianism, tian is referred to as an absolute principle that explicates the origin of the universe. Tian, whose literal meaning is heaven or sky, seems consistent with sunyata or wu. Although tian signifies heaven or sky, it does not mean physical space but the supreme god or godhead. In this sense, tian is fundamentally different from sunyata(or wu) in that tian stands for existence of the supreme god while sunyata denotes non-existence.⁴⁶ Yu Young-mo views that divinity of tian is analogous to the God of Christianity. He writes that “Confucianism seems polytheistic but serves only one God(天).”⁴⁷ Yu Young-mo points out that to perform ancestral rites in Confucianism is to worship God.⁴⁸ According to him, Confucianism can be integrated with Christianity by using the notion of tian.

Combining with the meaning of tian, bintanghande includes the notion of God. Literally speaking, bintanghande is a spatial term relevant to emptiness even though the emptiness of bintanghande means more than non-existence of matter. Yu Young-mo claims that bintanghande is the form of God and that the inner life of God is eol(the Holy Spirit).⁴⁹ For this reason, Yu Young-mo refers to God as “eobsi gyesineun bun(없이

⁴⁶ Desseuji, *Gongja Noja Seogga*, 182.

⁴⁷ Yu, *Daseok Yu Young-Mo Eolog*, 49.

⁴⁸ Yu, 39.

⁴⁹ Yu, 54.

계시는 분),” which means that God is a God who exists without existence.⁵⁰ In this sense, to focus on thinking of bintanghande leads to the experience of God. Yu Young-mo conceives that the center of bintanghande is associated with tian. For him, to practice the doctrine of the mean in Confucianism is to be connected to God because he understands that “the mean in the doctrine of the mean is the absolute (God).”⁵¹ According to Yu Young-mo, the doctrine of the mean is to reach God in a vertical direction and to interact with everything and others in a horizontal direction.⁵² Also, he describes that to practice the doctrine of the mean is “to pierce a hole in the mind.”⁵³ ‘Piercing a hole in the mind’ is the same meaning as ‘playing aiming at bintanghande.’ One can meet with God by piercing a hole in the mind or by playing aiming at bintanghande. In this sense, Yu Young-mo writes that “to think is to communicate with God by piercing a hole in the mind.”⁵⁴

⁵⁰ Yu, 56.

⁵¹ Young-mo Yu and Young-ho Park, *Daseok Jungyong Gangui* (Seoul: Gyoyangin, 2010), 64.

⁵² Yu and Park, 65.

⁵³ Park, *Daseok Yu Youngmoui Chulhakgwa Sasang*, 82.

⁵⁴ Yu, *Daseok Gangui*, 97.

Bintanghande, Dualism, and Consciousness

Yu Young-mo's notion of bintanghande leads us to recognize his thoughts about consciousness. First, Yu Young-mo rejects reductive materialism and understands consciousness as belonging to something non-physical. Of course, since he is a theologian, he presupposes that something spiritual exists. If reductive materialism is accepted, religions can hardly survive. Therefore, many religion scholars presuppose that God, spirit, or soul subsists, resisting reductive materialism. Accepting the possibility of something spiritual and non-physical, Stuart A. Kauffman claims that "we need to find a global spiritual space that we can share across our diverse civilizations...in which we can find a natural sense of God that we can share to a substantial extent whatever our religious convictions."⁵⁵ Where reductive materialism cracks, the notion of something spiritual emerges. For Yu Young-mo, bintanghande, the key notion of his thoughts, cannot be explained by reductive materialism.

Second, Yu Young-mo's notion of bintanghande is compatible with radical dualism in that the existence of bintanghande has nothing to do with matter. He claims that bintanghande can exist regardless of the world of matter.⁵⁶ We can recognize in various aspects that Yu Young-mo's thoughts are based on radical dualism. For example, relying on radical dualism, he divides the self into jena and eolna. Later, the notion of

⁵⁵ Stuart A. Kauffman, *Reinventing the Sacred: A New View of Science, Reason, and Religion* (New York: Basic Books, 2008), 283.

⁵⁶ Dualism can be divided into substance dualism and property dualism. Substance dualism contends that the mind can exist independent of substance, while property dualism asserts that although the mind is not substance, it cannot be separated from substance. Substance dualism is more radical than property dualism, and Cartesian dualism corresponds to substance dualism.

eolna and jena will be explored. Simply put, the notion of eolna and jena corresponds to that of mind and body. Yu Young-mo contends that we will live the life of eolna after the death of jena. He holds that “death is just to transfer.”⁵⁷ In his view, eolna is influenced by jena, but eolna can be separated from jena. Unlike Yu Young-mo, most philosophers do not agree with radical dualism. For instance, Whitehead’s process thought can seem dualistic in that it contends every actual entity has two poles: a physical pole and a mental pole. Whitehead writes that “no actual entity is devoid of either pole; though their relative importance differs in different actual entities.”⁵⁸ He acknowledges the existence of something non-physical, but in process thought a mental pole cannot exist without a physical pole. According to him, the mental pole is distinguished from the physical pole, but the two poles cannot be separated. On the contrary, since Yu Young-mo’s bintanghande can exist with no relation to the physical, we can recognize that the notion of bintanghande is rooted in radical dualism.

For Yu Young-mo, the notion of consciousness is similar to that of soul, but the two concepts are different. He understands consciousness as something non-physical, but he denies the existence of soul. Dualism is relevant to the traditional notion of soul as well as of consciousness. Both soul and consciousness are something non-physical; from the perspective of substance dualism, they can be separated from matter. Also, soul is understood as what makes one sustain one’s identity even after the death of the physical body. Richard Swinburne writes that “if we think of a person as body plus soul...the

⁵⁷ Yu, *Daseok Gangui*, 18.

⁵⁸ Alfred North Whitehead, *Process and Reality*, ed. David Ray Griffin and Donald W. Sherburne, Corrected Edition (New York: Free Press, 1978), 239.

continuing of the soul alone guarantees the continuing of the person.”⁵⁹ In this sense, the soul is the essence of a person because it secures the person’s self-identity; “the body is only a contingent part of the person.”⁶⁰ In Yu Young-mo’s view, one’s consciousness exists even after the death of the physical body, but it does not guarantee one’s identity. For him, although one’s consciousness corresponds to the true self “who exists without existence,”⁶¹ it cannot be regarded as an individual one.

The notion of bintanghande supports the view that there is consciousness as something non-physical in the mind-body problem. However, Yu Young-mo denies that a personal consciousness survives the death of one’s body. For him, bintanghande is the gate through which one reaches the awareness that the essence of the world is something non-physical. As soon as a thinker arrives at bintanghande, he or she vanishes into the wholeness of consciousness. Yu Young-mo claims, to use the notion of eolna and jena, that when one dies, eolna as the true self survives because eolna is the ultimate reality of the universe. His claim is compatible with the perspective of Buddhism on the essence of the world. Buddhism asserts that the ultimate truth of the world is the character of ceaseless change itself without any essential form or matter. For Yu Young-mo, consciousness is the way, and the truth, and the life. In his view, we can reach consciousness as the truth through consciousness as the way, so that we finally obtain

⁵⁹ Richard Swinburne, *The Evolution of the Soul*, Revised edition (Oxford England : New York: Clarendon Press, 1997), 160.

⁶⁰ Richard Swinburne, *Mind, Brain, and Free Will* (Oxford: Oxford University Press, 2013), 165.

⁶¹ Yu, *Daseok Yu Young-Mo Eolog*, 97.

consciousness as the life. Yu Young-mo's consciousness is eternal without physical substance.

3.3. Developing Eolna and Subduing Jena

Jena and Eolna

Dividing the self into two dimensions, the physical and the spiritual, Yu Young-mo suggests how to reach bintanghande, the ultimate path to the divine and nature. He refers to the physical self as jena(제나, 自我) and the spiritual self as eolna(얼나, 靈我).⁶² Both jena and eolna are compound words. Jena is composed of je(제) and na(나); eolna, eol(얼) and na(나). Je means natural, eol spiritual, and na self. Literally, jena denotes the natural self. For Yu Young-mo, it is eolna that makes the human being take a prestigious position compared with animals.⁶³ Jena is the natural self, whereas eolna is not naturally born. Therefore, it is necessary to discipline oneself in order to live as eolna. That is to say, we cannot live as eolna without eliminating jena. Yu Young-mo

⁶² Yu Young-mo explains jena as the outer self(geotna) and eolna as the inner self(sogna).

⁶³ Yu, *Daseok Yu Young-Mo Eolog*, 123.

writes that “when jena dies, eolna lives.”⁶⁴ Noting that “the physical body is like clothes which we take off,”⁶⁵ he asserts that the true self is eolna and that only eolna is immortal.⁶⁶ The purpose of life, Yu Young-mo maintains, is to annihilate jena and seek eolna.

Although Yu Young-mo’s notion of eolna is based on various religions,⁶⁷ it is most relevant to the Holy Spirit in Christianity. He contends that “the Holy Spirit is eolna who dwells in our mind”⁶⁸ and that “eolna is one with God.”⁶⁹ Yu Young-mo relates many verses in the Bible to the concept of eolna. For example, he writes that to give God’s only son(John 3:16) is to grant us the seed of God, eol(the spirit).⁷⁰ Yu Young-mo points out that “being born again” (New International Version, John 3:3) means being born as eolna because the phrase includes the word ἄνωθεν whose literal meaning is “from above.”⁷¹ In this sense, he affirms that we should ascend to heaven through eol given by God.

⁶⁴ Yu, 95.

⁶⁵ Yu, 94–95.

⁶⁶ He employs various words to represent eolna. Sogna(the inner self), chamna(the true self), and keunna(the big self) are equated with eolna.

⁶⁷ Yu Young-mo understands Dharma(truth) in Buddhism as eolna and zhong(中) in zhongyong as eolna.

⁶⁸ Yu, *Daseok Yu Young-Mo Eolog*, 127.

⁶⁹ Yu, 129.

⁷⁰ Yu, 132.

⁷¹ Yu, 136.

Yu Young-mo points out that eolna has no name, emphasizing that eolna is continually developing without stagnation.⁷² Just as Tao Te Ching says that “the unnamable is the eternally real,”⁷³ so Yu Young-mo claims that eolna, eternal life, cannot be named. He contends that God does not have a name and that God becomes an idol if God is named.⁷⁴ In his view, jena has a name but the name is of no significance because eolna with no name is the true self. To say that eolna has no name is to claim that eolna belongs to ultimate reality with ceaseless change.

Dividing the self into jena and eolna, Yu Young-mo prioritizes and emphasizes eolna, the non-physical part of the self. According to him, we have to subdue jena inasmuch as jena hinders eolna from taking a spiritual breath.⁷⁵ He points out that when we deal with jena, we have to be careful of three poisons—greed, anger, and ignorance(貪瞋痴). Greed denotes sticking to what one craves for; anger means hatred, disgust, or discomfort at what one does not like; ignorance is to make a wrong judgment because of greed and anger. Three poisons, the notion of which derives from Buddhism, originates in the mind rather than in the body.⁷⁶ In Yu Young-mo’s view, although jena is the physical self, the problem of jena comes out of the mind. If jena is not rejected, eolna cannot be found within the self. To subdue jena is to clear the mind so that eolna may be

⁷² Yu, 101.

⁷³ Tzu and Torode, *Tao Te Ching*, 1.

⁷⁴ Yu, *Daseok Yu Young-Mo Eolog*, 101.

⁷⁵ Park, *Jinliui Salam Daseok Yu Young-Mo (Ha)*, 94.

⁷⁶ Yu, *Daseok Gangui*, 725.

born. Yu Young-mo writes that “just as a baby begins to breathe by cutting the umbilical cord, so eolna can be born with the death of jena.”⁷⁷

Yu Young-mo claims that we cannot completely remove three poisons in jena once for all. In Buddhism, it has been controversial for a long time if one needs to discipline oneself after enlightenment. Some claim that we do not have to discipline ourselves if we achieve enlightenment, whereas others assert that even if we attain enlightenment, we should keep on disciplining ourselves. Yu Young-mo compares enlightenment to awakening and disciplining oneself to standing, contending that we should wake up and get up.⁷⁸ In favor of the latter, Yu Young-mo contends that we should investigate jena and eliminate three poisons every day.⁷⁹ For him, to examine jena is to look into the mind within jena.⁸⁰

Given that eolna is ultimate reality, death can be thought of as nothing because death is relevant only to jena. Yu Young-mo asserts that death does not mean annihilation. He writes: “To live coming out of the mother’s womb is not to live. To leave this world is not to die. Death is just to transfer.”⁸¹ In other words, for Yu Young-mo, to be born is to transfer from the mother’s womb to Mother Nature’s womb; to die is to transfer to Mother Nature’s womb. In Yu Young-mo’s view, we can recognize that the

⁷⁷ Young-ho Park, *Daseok Yu Young-Mo Myoungsangrok* (Seoul: Dure, 2000), 92.

⁷⁸ Yu, *Daseok Yu Young-Mo Eolog*, 134.

⁷⁹ Park, *Jinliui Salam Daseok Yu Young-Mo (Ha)*, 106.

⁸⁰ Yu, *Daseok Gangui*, 40.

⁸¹ Yu, 18.

issue of life and death is nothing only if we eradicate greed within jena. Yu Young-mo writes: “when we remove greed, we can overcome the issue of life and death. If so, we are not glad that we live; we do not hate death even if we die. When we overcome the issue of life and death, we reach eolna, eternal life, granted by God.”⁸² That is to say, when we eliminate greed, jena dies; when jena dies, the issue of death disappears; when we are not afraid of death, eolna is born.

Developing Eolna

Yu Young-mo maintains that the goal of the human being is to awaken and develop eolna. As mentioned above, the literal meaning of eolna is the spiritual self, which is relevant to divinity. Yu Young-mo writes that “eolna is God, eternal life.”⁸³ Since eolna is connected with God, it involves something mysterious. Therefore, we cannot completely fathom eolna, but Yu Young-mo holds that thinking awakens eolna, the true self. For Yu Young-mo, it is important to focus on thinking because thinking enables us to awaken and develop eolna. Assuming that thinking and eolna are the reality of the universe, what distinguishes us from animals is that we think and provide thoughts. Yu Young-mo writes: “The human being on the earth is nothing...The human being is different from other animals in that humanity leaves thoughts by thinking.”⁸⁴

⁸² Yu, *Daseok Yu Young-Mo Eolog*, 118.

⁸³ Yu, 95.

⁸⁴ Yu, *Daseok Gangui*, 120.

Emphasizing the necessity of subduing jena, Yu Young-mo claims that we have to discipline jena since the greed of jena leads us to satisfy the desires of the body rather than to help us to think. Yu Young-mo asserts that those who are born as eolna do not have three poisons in their words and deeds.⁸⁵ Furthermore, jena should be under the control of eolna in order to stimulate thinking. Yu Young-mo maintains that we can see God only if we clear the mind by killing jena.⁸⁶ According to him, we cannot reach bintanghande without subduing jena. Bintanghande denotes one's inner place which is empty and cool without any substance. To subdue jena is to get rid of wastes and secure the space of bintanghande. Yu Young-mo claims that we can accept God only if we clear the mind.⁸⁷

According to Yu Young-mo, thinking is the path not only to God but also to the imago Dei.⁸⁸ He points out that thinking itself is similar to eolna or God. Yu Young-mo understands eolna as more changeable than jena. Just as thinking is ever-changing, so the primary characteristic of eolna lies in changeability. Yu Young-mo writes: "The true self is a point and a moment. I am not already myself. The moment I think, I am myself. The true self is one who exists without existence."⁸⁹ He views eolna as having no immovable,

⁸⁵ Yu, *Daseok Yu Young-Mo Eolog*, 136.

⁸⁶ Yu, 114.

⁸⁷ Yu, *Daseok Gangui*, 20.

⁸⁸ Yu Young-mo claims that God grants thinking to human beings. Therefore, according to him, human beings can recover the imago Dei by thinking. See Young-mo Yu, *Daseok Majimag Gangui* (Seoul: Gyoyangin, 2010), 99.

⁸⁹ Yu, *Daseok Yu Young-Mo Eolog*, 97.

substantial essence. According to him, variability as the primary character of eolna is recognized by thinking, the variable process of consciousness.⁹⁰ In this way, thinking is connected with God as “one who exists without existence.”⁹¹ Yu Young-mo writes that when we awaken eolna by thinking, we reach heaven.⁹² Although thinking is deeply concerned with eolna, thinking cannot be equated with eolna. Yu Young-mo claims that eolna is not so much consciousness of the self as super-consciousness overcoming both consciousness and unconsciousness.⁹³

In Yu Young-mo’s view, it is at night that we are most likely to approach and awaken eolna. He points out that the physical world prevents us from seeing the ultimate reality of the universe. Yu Young-mo writes that “the mind is lowered because the brightness of the day makes us see the world.”⁹⁴ In relation to eolna, he stresses two directions, upward and inward, because he conceives that two directions are interconnected. For instance, he explains that when we look at the stars in night sky, we can discover eolna within ourselves. Also, we should look at the inner self rather than the outer world so that we may reach heaven. Yu Young-mo asserts that we are more likely to take a spiritual breath at night rather than during the day. He points out that “it is in

⁹⁰ Yu Young-mo’s understanding of thinking is different from what ‘thinking’ often means in the Western intellectual tradition. However, he does not make a name in order to designate his notion of thinking. I suggest that Yu Young-mo’s thinking can be named as ‘subjective thinking’ or ‘solitary thinking.’

⁹¹ Yu, *Daseok Yu Young-Mo Eolog*, 56.

⁹² Yu, 114.

⁹³ Yu, 104.

⁹⁴ Yu and Park, *Nojawa Daseok*, 115.

vain to try to meet with eternity(God) during the day” because “the brightness of the day thwarts the mystery of the universe and the whispering of the spirit.”⁹⁵ In this sense, Yu Young-mo understands that faith means to push thinking upward to God.⁹⁶

Fundamentally, eolna cannot be comprehended for at least two reasons. First, eolna is connected to God; Yu Young-mo claims that when we approach God, we should adhere to the principle of moleumjigi(모름지기). Moleumjigi is a Korean word and its literal meaning is necessarily. However, Yu Young-mo views moleumjigi as a compound word which is composed of moleum(모름) and jigi(지기). He interprets moleum as having two meanings, God and not knowing. Jigi means to keep. According to Yu Young-mo, moleumjigi means that we should keep the view that we cannot comprehend God. He holds that God is radically different from the human being.⁹⁷ Second, eolna varies inasmuch as “thinking continues to emerge within the self.”⁹⁸ Since eolna as the true self vanishes like a point of thinking, we cannot completely fathom ourselves. Therefore, Yu Young-mo claims that we should be aware of our existence as a point of thinking and invigorate the point.⁹⁹

⁹⁵ Yu, *Daseok Yu Young-Mo Eolog*, 95.

⁹⁶ Yu, *Daseok Majimag Gangui*, 37.

⁹⁷ Yu, *Daseok Yu Young-Mo Eolog*, 20.

⁹⁸ Yu, 79.

⁹⁹ Yu, 79.

On the one hand Yu Young-mo distinguishes eolna from jena, but on the other hand he draws attention to the intimate relationship between the two. Eolna is deeply concerned with thinking; thinking is influenced by jena, the body. In Yu Young-mo's view, thinking is not just a physical function of the brain; he stresses that thinking is performed through the body. He claims that we have to keep jena healthy because a healthy jena is a condition for the awakening of eolna. According to him, it is when the body is healthy and the mind is relieved that we are ready to try to awaken eolna.¹⁰⁰ Yu Young-mo employs various metaphors to describe the nexus between jena and eolna. For example, he writes that "the spine is a tuner and the mind is a lute."¹⁰¹ That is to say, when the spine is straight, one can play beautiful thinking through the body. Also, he compares eolna to a tree and jena to fertilizer in that the tree cannot grow well without the help of fertilizer.¹⁰²

Yu Young-mo understands that the body is a sign which exposes the state of the mind. That is to say, when the body is not erected, it means that the state of the mind is too weak to control the body.

"We should lay the mind down and erect the body. Let the mind take a rest under eternal shade and the body stand over fast and abstinence. This is to comfort the mind and follow the divine (安心立命). Meditation is to lay the mind down and erect the body. We should sink the mind like fine ash and erect the body like a stick. Because the body is skin composed of flesh, it softens, decays, and collapses when it is left unattended. The body should be erected like a stick. The stick is the mind. When the mind is strong, the body is erected."¹⁰³

¹⁰⁰ Yu, 100.

¹⁰¹ Park, *Daseok Yu Youngmoui Chulhakgwa Sasang*, 37.

¹⁰² Yu, *Daseok Yu Young-Mo Eolog*, 107.

¹⁰³ Yu, 113.

According to Yu Young-mo, keeping a good posture assists us to relieve the mind; at the same time, the good posture originates from a strong mind. A crooked posture represents that the mind is not in a good state. Yu Young-mo contends that once the body is erected with a sound mind, the body can help us to clear the mind and awaken eolna.

Also, Yu Young-mo attends to words because he conceives that words originally come out of God. According to him, if eolna is born from the eternal spirit by thinking, we can conjecture that both eolna and thinking are bound up with words. As mentioned above, Yu Young-mo asserts that God dwells where one thinks(念在神在) and that God enables us to think because God grants thinking to us.¹⁰⁴ He also points out that God speaks to us when we think.¹⁰⁵ He writes that “the word of God cannot be prevented since it talks to the mind.”¹⁰⁶ In other words, he contends that when we think, God speaks to us and leads us to speak. He writes: “Those who think want to speak. Those who know and speak the true word have the flame of thinking within themselves.”¹⁰⁷

Yu Young-mo contends that to cultivate the mind is to cultivate words and that to think is to cultivate words.¹⁰⁸ Believing that words involve the ultimate knowledge of reality, he tried to meditate on words. Since he is a Korean, he contemplates many

¹⁰⁴ Yu, *Daseok Majimag Gangui*, 99.

¹⁰⁵ Yu, 100.

¹⁰⁶ Yu, *Daseok Yu Young-Mo Eolog*, 25.

¹⁰⁷ Yu, 15–16.

¹⁰⁸ Yu, 22.

Korean words. For example, he affirms that geut(ㄱ), a Korean letter, represents eolna.¹⁰⁹

As mentioned above, he explains that “eolna is a point and a moment.”¹¹⁰ Geut(ㄱ) is a

Korean word whose literal meaning is a stroke, which includes both a point and a line.

The consonant giyeog(ㄱ) stands for the spirit from heaven; the vowel eu(ㅡ) earth; the

consonant siot(ㅅ) a human being. In Yu Young-mo’s view, the letter geut(ㄱ) represents

that the spirit of heaven collides with earth and gives birth to a human being. Therefore,

he contends that the true self is the spiritual self(eolna). Yu Young-mo writes: “My

geut(ㄱ) is not mine. The geut is a piece of eternal spirit. The geut is a tip of eternal spirit.

I am myself belonging to the whole(God), not to jena deserted from the whole.”¹¹¹

For Yu Young-mo, to know God is to listen to the word of God. Yu Young-mo writes: “if we want to know someone, we should notice what he or she says. In the opposite way, when we hear what somebody says, we can know him or her.”¹¹² Inasmuch as every word is based on thoughts,¹¹³ listening to the word of God corresponds to recognizing God’s thoughts. Noting the Christian view that the word of God is God, Yu

¹⁰⁹ Yu, 224.

¹¹⁰ Yu, 97.

¹¹¹ Yu, 224.

¹¹² Yu, 13.

¹¹³ Yu, *Daseok Majimag Gangui*, 60.

Young-mo claims that we can replace the life of the body(mogsum, 목숨) with that of the spirit(malsum, 말숨).¹¹⁴ In Korean, the word of God(malssum, 말씀) and the life of the spirit(malsum, 말숨) are almost homophones. By using the similarity of the sounds of the two words, he claims that mogsum(the body) should enter malsum(the spirit) and malssum(the word of God) in order to live. It can be understood in two ways: first, jena should live in eolna; second, jena has to live in the word of God. He maintains that “the word of God is the core” and that “the life of the body is just a shell.”¹¹⁵

Gaonjjiggi and Perfect Freedom

Gaonjjiggi(가온찍기) is not only the essence of Yu Young-mo’s thoughts but also a way of his meditation to reach eolna. Yu Young-mo practiced meditation by reflecting on various words. He writes that there are the three most important words: bim(空), jegye(天國), gaonjjiggi(頓悟).¹¹⁶ Bim can be equated with bintanghande, jegye heaven, and gaonjjiggi enlightenment. While bim and jegye are nouns, gaonjjiggi includes a verb, jjiggi. The term gaonjjiggi per se tells us what we should do to attain

¹¹⁴ Yu, *Daseok Yu Young-Mo Eolog*, 21.

¹¹⁵ Yu, 24.

¹¹⁶ Yu, 30.

enlightenment. Gaonjjiggi(가온찍기) is a compound word, which is composed of gaon(가온) and jjiggi(찍기). Literally, gaon means middle and jjiggi is to mark. That is to say, the literal meaning of gaonjjiggi is to mark a point in the middle. Yu Young-mo maintains that jena is a fake self and that eolna is the real self. To live the life of eolna, he suggests that we should make the mind one point and aim at the bull's eye of the point. Gaonjjiggi is to empty oneself so that one can become just a point. To empty oneself is to reach bim, bintanghande. Yu Young-mo claims that when we make ourselves a point, we can reach heaven. In short, to become a point is to enter heaven. Yu Young-mo uses a-rae-a(·), a vowel of Korean letters, to explain the notion of gaonjjiggi.¹¹⁷ Since a-rae-a(·) represents heaven, Yu Young-mo relates marking a point to reaching heaven. In Yu Young-mo's view, gaon has not only a temporal but also a spatial meaning. Temporally, gaon means the moment of the present in time passing by. Spatially, gaon denotes the middle between sky and earth, the center of the universe, or the core of the human mind. Yu Young-mo refers to a human being as a breathing point.¹¹⁸ Gaonjjiggi is to try to live as a point temporally and spatially.

Yu Young-mo's thought of gaonjjiggi is based on Zhongyong in Confucianism. As a matter of fact, the meaning of gaon corresponds to that of Zhongyong. However, Park Jae-soon points out that while Confucianism views Zhongyong as the balanced state

¹¹⁷ A-rae-a(·) is an archaic vowel. A-rae-a(·) was used when the Korean language, Hunminjeongeum, was invented in the fifteenth century. However, a-rae-a(·) has not been used since the eighteenth century.

¹¹⁸ Young-mo Yu, "Sosig," in *Daseok Ilji, Sang* (Yeonginbon, 1982), 650.

of the mind, Yu Young-mo understands Zhongyong as the goal which we should accomplish by unifying the mind and the body.¹¹⁹ Yu Young-mo writes: “The body is a bow and the mind is an arrow. When the mind as an arrow is properly placed on the body as a bow, one can hit zhongzheng (中 正)—being fair and upright.”¹²⁰ Also, gaonjjiggi tells us how to live. In Daseok Ilji, Yu Young-mo explains that the life of gaonjjiggi is to eat moderately and work moderately. According to Yu Young-mo, just living a moderate life is not enough to attain the purpose of life. Therefore, he claims that we need to practice gaonjjiggi, marking a dot on the mind. Yu Young-mo writes: “The beginning of thinking is a point. The beginning of thinking is paintings and letters...The point of every point is the living I. The beginning of beginning is I. Everything comes out of me. The first beginning is I.”¹²¹

On the one hand, gaonjjiggi enhances one’s subjectivity by focusing on oneself, but on the other hand, it is similar to the anatta of Buddhism. Anatta, the doctrine of no-soul, denies “the existence of such a soul, self, or Ātman.”¹²² In other words, Buddhism holds that there is not anything eternal which keeps one’s individual identity. According to Yu Young-mo, since gaonjjiggi takes place through the process of focusing on oneself, it must be considered as the most subjective. However, at the same time, gaonjjiggi is not only to empty oneself but also to become one with the divine by marking a dot in the

¹¹⁹ Park, *Daseok Yu Youngmoui Chulhakgwa Sasang*, 157–58.

¹²⁰ Park, 158.

¹²¹ Yu, *Daseok Yu Young-Mo Eolog*, 92–93.

¹²² Rahula, *What the Buddha Taught*, 51.

mind. In Yu Young-mo's view, when we become a point, we do not conflict with others because we as a point do not have any right or possession. In this sense, Park Jae-soon points out that one as a point in the middle has no enemy.¹²³ From the perspective of Buddhism, we do not have enemies because there is no individual in the world. Similarly, according to Yu Young-mo, the self who is minimized as a point or a moment has no enemy.

Given that thinking is part of consciousness, we can recognize that *eolna* is related to consciousness. While consciousness is an elusive concept, it is easy to understand a body. By dividing the self into *jena* and *eolna*, Yu Young-mo maintains that *jena* is not the true self. *Jena* is the physical body, but *eolna* cannot be equated with consciousness. Yu Young-mo explains that *eolna*, the true self, is born by thinking. It is difficult to define *eolna* because it does not have the material. However, the fact that *eolna* does not have matter represents the nature of *eolna*, which is to keep changing without substantial essence. In Yu Young-mo's view, the nature of thinking corresponds to that of *eolna*. Therefore, he holds that we can awaken *eolna* within ourselves by the process of thinking. According to him, consciousness is part of and path to ultimate reality; it changes ceaselessly without any fixation.

¹²³ Park, *Daseok Yu Youngmoui Chulhakgwa Sasang*, 171–72.

Consciousness as the Way to Perfect Freedom

According to Yu Young-mo, the role of consciousness is to set the subject of consciousness apart from the physical world so that the subject may realize the ultimate reality of the world. Consciousness is regarded as the unique feature of the human being, but we do not know exactly what we should do with consciousness. Yu Young-mo attends not only to the conception of philosophical issues but also to the practice of theories because he strives to experience divinity. While phenomenologists draw attention to consciousness itself, Yu Young-mo tries to find practical ways for experiencing divinity by using consciousness. Therefore, Yu Young-mo provides various specific ways of using consciousness. Gaonjjiggi is a way of meditation in which one can concentrate on oneself by marking a point in the middle of the mind. Phenomenologists' view of consciousness is based on Husserl's intentionality according to which consciousness is consciousness of something out there. On the contrary, Yu Young-mo maintains that one can separate oneself from objects of the world by thinking of oneself. For phenomenologists, the direction of consciousness is toward the outside world; therefore, the more vigorously one tries to think, the more complicatedly one is connected to the world. However, Yu Young-mo maintains that the object of thinking should be the thinking of the thinker rather than objects out there. In his view, if we stimulate the process of consciousness toward the inner self, we can be disconnected from the world.

According to Yu Young-mo, we can recognize that another important role of consciousness is to encourage the process of thinking. This role can be thought of as trivial because thinking is a natural function of consciousness. However, we can think of

stopping thinking consciously, as Taoism claims that we should stop thinking. In a sense, it seems that we can stop thinking because we can attain the final goal of thinking that Yu Young-mo suggests. While phenomenologists claim that it is impossible to obtain pure subjectivity because of transcendence, Yu Young-mo holds that we can enter and see the transcendent world of eternity by thinking. He writes that “just as an airplane takes off after moving along the ground on a runway, so a human being reaches the realm of transcendence through the reasoning of thinking.”¹²⁴ However, in his view, although we reach the final goal of thinking, we should keep on thinking. Yu Young-mo claims by using the term *moleumjigi* that we should acknowledge the state of our unknowing. In other word, he asserts that although we succeed in being connected with divinity, we should notice that we cannot completely comprehend the essence of nature or the core of divinity. Therefore, Yu Young-mo argues that we should keep on thinking with our consciousness.

Yu Young-mo maintains that consciousness can lead us to obtain perfect peace and perfect freedom. Just as many religion leaders emphasize and teach various religious practices such as meditation and devotional rites, so Yu Young-mo mentions a way that a human being can meet with the divine. Both *bintanghande* and *gaonjjiggi* are related to religious practices. *Bintanghande* and *gaon* are similar to the meaning of emptiness in Buddhism. Emptiness is not only a philosophical principle but also a practical tool for religious practices. James L. Fredericks points out that “in the Stanzas Nagarjuna developed emptiness as a tool that monks might use pragmatically to pry themselves

¹²⁴ Yu, *Daseok Yu Young-Mo Eolog*, 99.

loose from their attachment to false views.”¹²⁵ It is possible that ceaseless thinking causes anguish, but Yu Young-mo contends that we can obtain perfect peace and perfect freedom by living the life of gaonjjiggi. Gaonjjiggi helps us to live a life focusing on ourselves by a ceaseless process of thinking.¹²⁶ We can stop desiring for objects because gaonjjiggi makes us think of the inner self, not objects out there. For Yu Young-mo, the moment we obtain perfect peace is the moment of enlightenment. Those who reach enlightenment abandon desire for objects. Yu Young-mo asserts that to abandon desire for objects is the way we obtain perfect peace.

Yu Young-mo’s conception of perfect freedom is more important than that of perfect peace since it is relevant not only to consciousness but also to teleology. Although he believes in God, he secures perfect freedom by eliminating any telos of God. In order to enjoy perfect freedom, we have to be free from any obsession or restriction. Yu Young-mo points out that it is necessary to control jena because greed or anger in jena hinders us from achieving freedom. He maintains that we can have our own way only if we overcome jena. However, even if we completely succeed in oppressing jena, it does not guarantee perfect freedom. If any absolute being exists, we can be situated to follow the will of the absolute being. Although Yu Young-mo believes in God, he rejects fate, destiny, or God’s ultimate telos. Rejecting any determinism, he affirms that “life is undecidable until it ends.”¹²⁷ Yu Young-mo holds that everything is decided at the

¹²⁵ James L. Fredericks, *Buddhists and Christians: Through Comparative Theology to Solidarity* (Maryknoll, New York: Orbis Books, 2004), 89.

¹²⁶ Park, *Daseok Yu Youngmoui Chulhakgwa Sasang*, 12.

¹²⁷ Young-mo Yu, “Hage Doege,” in *Daseok Ilji, Sang* (Yeonginbon, 1982), 810.

moment when one meets with God through gaonjjiggi. Insofar as gaonjjiggi is a meeting between subject and subject,¹²⁸ we are not subjected to obey the will of the divine.

According to Yu Young-mo, it is every moment that we have to decide what to do, because gaon is a moment connected to the past and the future. Only a subject, who lives the life of gaonjjiggi, can have freedom.

Just as many religions are inclined to be violent,¹²⁹ so Yu Young-mo's thoughts have the risk of being aggressive inasmuch as he emphasizes interconnection with divinity through the process of thinking. However, Yu Young-mo removes the possibility of violence by eliminating telos. It is through consciousness that we try to understand what is happening in the world. When we are conscious of something, our consciousness is ultimately related to telos. For this reason, most religions provide telos, which lessens uncertainty because telos reduces or removes disorder, ambiguity, and chaos.

Unfortunately, once we are convinced of telos, we are likely to exploit others or objects to achieve ultimate purpose. When ultimate purpose is associated with divinity, the tendency of violence increases since most religious people give priority to God or the will of God. However, Yu Young-mo's thoughts avoid cruelty by securing perfect freedom and by removing telos. In other words, he claims that we do not have to obey the will of God by virtue of perfect freedom and that there is no divine purpose.

According to Yu Young-mo, it is through consciousness that the ultimate reality of the physical world can be revealed, although it is not clear why human consciousness

¹²⁸ As mentioned above, Yu Young-mo points out that a human being is the subject of thinking and that God is the subject of life. Therefore, he argues that a subject can be met only by another subject.

¹²⁹ Corrington, *Nature and Nothingness*, 1.

emerged. In this sense, the emergence of human consciousness means that the history of nature has reached a singular point in which the essence of nature can be recognized. In Yu Young-mo's view, it was not until the emergence of consciousness that the meaning of the ceaseless births and deaths in the history of evolution could be understood. The process of evolution entails suffering and death, but in Yu Young-mo's view, suffering and death in nature are illusionary since the essence of the world is bintanghande. If so, we can suppose that evolution has occurred so that the reality of nature may be realized. In this way, Yu Young-mo's thoughts about consciousness give the meaning of human consciousness against the background of the history of evolution.

4. OBJECTIVE MATTER AND SUBJECTIVE CONSCIOUSNESS IN STAPP'S THEORY

4.1. Why Quantum Physics and Consciousness

Consciousness and Quantum Physics

Consciousness is a unique issue which requires cross-disciplinary discussion especially between philosophy and science. Philosophically, consciousness has been an issue for a long time. Consciousness had been thought of as strictly a philosophical or religious issue until the mid-1800s. Understanding that all mental states belong to the mind, Descartes claimed that the concepts of thinking and consciousness are a unitary concept.¹ Since Descartes's dualism, scientists had treated all mental states as beyond scientific research. However, with the development of experimental psychology in the late 1800s, the science of consciousness developed and flourished for decades.² Fechner's

¹ Tim Bayne and Michelle Montague, eds., *Cognitive Phenomenology* (Oxford University Press, 2014), 4.

² Revonsuo, *Consciousness*, 48.

psychophysics, Titchener's analytic introspection, William James's *Principles of Psychology*, and Gestalt psychology contributed to the development of the science of consciousness.

Since the early 1900s, many scientists have set out to struggle to formulate theories entailing the exclusion of consciousness, but they failed to completely rule out consciousness. In the 1920s, behaviorism provided a paradigm in which consciousness is severed from scientific research. Based on positivism and empiricism, behaviorism contends that consciousness cannot be included in a scientific psychology since "science should be based only on the directly and publicly observable."³ In this sense, John B. Watson, the founder of behaviorism, was convinced that "behaviorism marked the beginning of an era that was also the point of no return for consciousness."⁴ Cognitive science and functionalism thrived in the 1960s after behaviorism, but they did not deal with consciousness. Although scientists have made some great advances by ruling out consciousness, consciousness remained a mysterious problem. As a matter of fact, the notion of consciousness is so complex that even radical materialists such as Daniel Dennett are unwilling to define it.⁵ Most scientists suppose that consciousness is identical to the thinking function of the brain,⁶ but they fail to provide a clear answer to the issue

³ Revonsuo, 58.

⁴ Ned Block, Owen J. Flanagan, and Guven Guzeldere, eds., *The Nature of Consciousness: Philosophical Debates* (Cambridge, Mass: A Bradford Book, 1997), 16.

⁵ Daniel C. Dennett, *Intuition Pumps and Other Tools for Thinking* (New York: W. W. Norton & Company, 2014), 79.

⁶ Dennett, *Consciousness Explained*, 41.

of consciousness. Nagel points out that “consciousness is the most conspicuous obstacle to a comprehensive naturalism that relies only on the resources of physical science.”⁷

Therefore, the modern science of consciousness emerged in the 1990s, and since then the issue of consciousness has entailed discussion between philosophy and science.

Despite the emergence of the science of consciousness, the issue of consciousness in science is still difficult because it is bound up with the mind-body problem. Scientists are necessarily confronted with the dilemma of the mind-body problem when dealing with the issue of consciousness. They still view consciousness as a physical phenomenon, majorly paying attention to what occurs in the brain. However, consciousness cannot be completely explained from the materialistic view. For this reason, some scientists maintain that consciousness involves something non-physical, but their claim has at least two problems. First, to say that consciousness is not physical is to presuppose that dualism cannot be ruled out. As mentioned above, dualism is so controversial that both scientists and philosophers have been averse to accepting dualism. If one wants to assert that consciousness is something non-physical, one should give a definite answer to the problem of dualism. Second, if consciousness is not physical, consciousness studies is fundamentally out of the realm of science. Inasmuch as science deals only with matter, something to be measured, consciousness as something non-physical can hardly be a subject of science. Therefore, most scientists tend to avoid the issue of consciousness in their research.

Most areas of science have little to do with consciousness as something non-physical, whereas quantum physics is entwined with it. Quantum physicists have to take

⁷ Nagel, *Mind & Cosmos*, 35.

their own stance on consciousness because the measurement process in quantum physics involves the issue of consciousness. According to quantum mechanics, a quantum entity has the dual characters: a particle nature and a wave nature. An observer can choose which one between two characters of a quantum entity to observe. When one wants to observe a quantum entity as a wave, it is observed as a wave. If one decides to measure a quantum entity as a particle, it is perceived as a particle. We do not know exactly how consciousness affects the state of a quantum entity, but most quantum physicists acknowledge that the state of a quantum entity is determined by human conscious choice. In this sense, quantum mechanics needs to cope with something beyond the realm of classical physics. Rosenblum and Kuttner claims that in the measurement at the microscopic level, “aspects of physical observation come close to those of conscious experience.”⁸ Heisenberg points out that quantum theory necessarily leads us to consider our relation to the observed object beyond the world of classical physics, although quantum physics itself is not involved in subjectivity or consciousness.

Certainly quantum theory does not contain genuine subjective features, it does not introduce the mind of the physicist as a part of the atomic event. But it starts from the division of the world into the “object” and the rest of the world, and from the fact that at least for the rest of the world we use the classical concepts in our description.... But this is already a reference to ourselves and in so far our description is not completely objective.⁹

⁸ Bruce Rosenblum and Fred Kuttner, *Quantum Enigma: Physics Encounters Consciousness*, 2 edition (Oxford ; New York: Oxford University Press, 2011), 233.

⁹ Werner Heisenberg, *Physics and Philosophy: The Revolution in Modern Science* (New York: Harper Perennial Modern Classics, 2007), 29–30.

Dualism Reconsidered

While many philosophers investigate consciousness from the perspective of subjectivity, quantum physicists are inclined to view consciousness as something non-physical although they are scientists. Most scientists conceive that the existence of the non-physical is deeply concerned with dualism. As mentioned above, they have despised or ignored dualism since it is impossible to explain how mind interacts with matter.¹⁰ Furthermore, if there is something non-physical, various principles of physics such as energy conservation principle have to be disputed.¹¹ Without providing solutions to the problems of dualism, quantum physicists accept the quantum measurement problem as a phenomenon. Although most scientists refuse to deal with consciousness as something non-physical, orthodox quantum physics states that a conscious choice, which is relevant to a non-physical process, affects the state of a quantum entity.

Quantum physicists who claim that non-physical consciousness affects physical objects point out that there is a causal gap in physics. They do not explain reasons for the causal gap between consciousness and the physical world, but they contend that we should admit the limitations of classical physics. According to classical mechanics, the position and the momentum of an object are determined only by matter. If orthodox quantum physics understands consciousness as something non-physical, it means that the state of a quantum entity is affected by the non-physical. From the perspective of classical physics, there cannot be a causal gap because everything is determined by causes in the physical world. Cause and effect is the absolute chain of classical

¹⁰ Blackmore, *Consciousness*, 2005, 4.

¹¹ Dennett, *Consciousness Explained*, 35.

mechanics. Drawing on the quantum measurement problem, quantum physicists claim that classical physics cannot be accepted as absolute rules of nature any longer even though we do not know exactly how the causal gap can be explained.

For quantum physicists, the causal gap between consciousness and the physical world can be the proof that consciousness is non-physical. In the process of observing a quantum object, an observer can decide which character of a quantum entity will be observed. The observer's choice is not determined by the physical world. In the measurement process at the microscopic level, "choices are free in the sense that they are not coerced, fixed, or determined by the physically described aspects of the theory."¹² Orthodox quantum mechanics maintains that we human beings have consciousness in that we have the freedom to choose which of the two characters of a quantum entity we will observe. Although the quantum measurement problem happens only at the microscopic level, this can be considered as a good example in which the mind can influence matter.

Unlike most scientists and philosophers, some quantum physicists take the position of radical dualism. Radical dualism corresponds to Cartesian dualism, according to which mind can be separated from matter. In Descartes's view, the mind can exist without the physical body and vice versa because they are not one thing.¹³ However, we are aware that various functions of the mind such as feelings and free choice are correlated to the brain. That is to say, we can hardly conceive of the mind independent of the physical body. If the mind as consciousness is necessarily connected to the physical

¹² Stapp, *Mindful Universe*, 10.

¹³ Nagel, *Mind & Cosmos*, 40.

body, there is no consciousness where there is no matter. On the contrary, radical dualism contends that consciousness as something non-physical can exist without the physical body. Most scientists deny radical dualism even though they accept that there is something non-physical. However, major quantum physicists are willing to advance on the position of radical dualism. For example, Schrödinger notices the paradox that “the many conscious egos from whose mental experiences the one world is concocted.”¹⁴ He asserts that the one way out of the number paradox is the truth that “there is only one mind.”¹⁵ His argument about consciousness is compatible with doctrines of religions, which are based on the presupposition that something non-physical such as God and spirit exists without physical matter. Also, emphasizing that modern physics challenged the concept of matter, Heisenberg suggests the possibility of something non-physical such as mind or soul. According to him, to say that the concept of matter has to be changed is to claim that we should take the possibility of mind as non-matter seriously. He writes that “our attitude toward concepts like mind or the human soul or life or God will be different from that of the nineteenth century, because these concepts belong to the natural language and have therefore immediate connection with reality.... Still we know that they touch reality.”¹⁶ Schrödinger or Heisenberg does not argue for radical dualism, but they point out that the general trend of human thinking has been confined to the closed frame of classical mechanics. They open up the possibility that we can deal with

¹⁴ Erwin Schrödinger, *What Is Life?: With Mind and Matter and Autobiographical Sketches*, Reprint edition (Cambridge ; New York: Cambridge University Press, 2012), 128.

¹⁵ Schrödinger, 129.

¹⁶ Heisenberg, *Physics and Philosophy*, 174–75.

religious concepts based on radical dualism—for example, God, spirit, or soul—in a scientific method.

The Understanding of Consciousness in Quantum Physics

Quantum physicists are inclined to interpret the quantum measurement problem only in the frame of physics, but it is associated with the philosophical approach to consciousness. Some scientific concepts are so complex that they cannot be described without philosophical understanding. In *On Physics and Philosophy*, Bernard d’Espagnat explains where science demands philosophy. For example, he points out that the meaning of hotter or colder cannot be an issue because everybody knows its meaning. He goes on to explain that when it comes to unfamiliar notions such as a quantum field or special relativity, it would be absurd to deal with such entities without making them clear. In this sense, d’Espagnat writes that “just as the philosopher who takes interest in the problem of reality may hardly ignore what the physicist has to say, similarly the physicist... nowadays can hardly escape having to cope with philosophical questions.”¹⁷ Similarly, the quantum measurement problem is entwined with the philosophical understanding of consciousness. The notion of consciousness is so elusive that quantum physicists do not have a clear frame of reference to consciousness. Dealing with consciousness without a consensus on it, quantum physicists tend to focus on the relationship between observation

¹⁷ d’Espagnat, *On Physics and Philosophy*, 250.

and consciousness. Rosenblum and Kuttner point out that “observation somehow involves consciousness, whatever that is.”¹⁸ Many quantum physicists exclude or ignore the philosophical meaning of consciousness in the quantum measurement problem because they presuppose that consciousness as something non-physical is beyond the realm of physics. However, orthodox quantum physics supports the philosophical view that consciousness corresponds to subjectivity. Quantum physicists scientifically argue for the claim that objectivity cannot be achieved. For example, the uncertainty principle is a principle contending the limitations of the measurement precision in quantum physics. The error of the measurement occurs because observation entails disturbance between the observer and the object. To say that the observed depends on the observer is to claim that observation belongs to subjective experience rather than an objective fact.

On the one hand, quantum physicists need to grasp the meaning of consciousness in a philosophical view because of the complexity of its notion, but on the other hand they can bring radical changes to the philosophical understanding of consciousness by providing new information about consciousness. The notion of consciousness is unexplainable without philosophy; it can be more developed by quantum physics. Generally speaking, science is distinguished from philosophy because science focuses on matter or phenomena while philosophy attends to meaning or ethics. For instance, the theory of evolution describes the process of evolution in organisms without considering any ethical meaning. Schrödinger explains evolution from the perspective of science by writing that “nature has no reverence towards life” and that “nature treats life as though it

¹⁸ Rosenblum and Kuttner, *Quantum Enigma*, 242.

were the most valueless thing in the world.”¹⁹ His statements are not a reckless disregard for ethics, but a representation of a value-free scientific view. However, boundaries between science and philosophy are ambiguous since value is correlated with fact. Stapp points out that “what we value depends on what we believe, and what we believe is strongly influenced by science.”²⁰ According to him, it is the “morally corrosive mechanical conception of nature” that “erodes not only the religion roots of moral values but the entire notion of personal responsibility.”²¹ Unlike classical mechanics, quantum physics considers an observer’s intervention, which is related to consciousness. Inasmuch as quantum physics requires consciousness in explaining the quantum measurement problem, quantum physicists have to deal with philosophical questions about consciousness, and the notion of consciousness can be developed by quantum physicists’ research.

¹⁹ Schrödinger, *What Is Life?*, 138.

²⁰ Stapp, *Mindful Universe*, 5.

²¹ Stapp, 5.

4.2. The Role of Consciousness in Quantum Physics

Wave Nature of Matter and Schrödinger's Cat

Before investigating the Copenhagen interpretation of quantum physics, we need to look into the meaning of Schrödinger's wave equation because it is one of the essential theories of quantum mechanics. Schrödinger's equation has been accepted as the most accurate theory in the history of physics by many quantum physicists.²² Schrödinger's wave equation represents the wave nature of matter not only at the microscopic level but also at the macroscopic one. We usually suppose that the position and the momentum of an object are affected only by interactions with other objects. However, quantum physicists discovered that electrons seem to move only in certain orbits and jump from one orbit to another without any cause. Some quantum physicists claimed that quantum jumps hinder us from predicting the position and the momentum of a quantum entity. Although it is true that a quantum entity is randomly found, Schrödinger rejected the notion of quantum jumps and developed his own equation denoting the wave character of a quantum entity. Schrödinger's equation has been accepted as the new universal equation of motion; orthodox quantum physics denies the theory of quantum jumps. It is widely accepted that Schrödinger's wave equation "governs not only the behavior of electrons and atoms but also the behavior of everything made of atoms."²³

²² Barad, *Meeting the Universe Halfway*, 110.

²³ Rosenblum and Kuttner, *Quantum Enigma*, 78.

While Schrödinger suggested an equation representing a wave nature of matter, Heisenberg claimed that matter exists as possibility prior to observation. At first, Schrödinger criticized Heisenberg's claim; he proposed a thought experiment called Schrödinger's cat in order to show the absurdity of Heisenberg's theory.²⁴ This thought experiment supposes that there are a pair of boxes. An atom is shot towards those boxes through a semi-transparent mirror. Because of the wave function of the atom, the atom exists simultaneously in both boxes. That is to say, the atom is in a superposition state. Schrödinger supposes that one of the two boxes has a Geiger counter which can emit poisonous cyanide when an atom enters the box. The box also has a cat in it. If the cyanide is fired, the cat will die. If not, the cat will live. Just as the atom is in both boxes before we look, so the Geiger counter is both fired and unfired when unobserved. Similarly, the cat is simultaneously alive and dead before we observe it. According to Schrödinger, since quantum theory sees the unobserved world as being in a superposition of possibilities, quantum theory is inappropriate to describe the physical world. Schrödinger's cat shows that quantum theory "conflicts with our conscious observation telling us that the physical world is in a definite state."²⁵ Now, it is referred to as a thought experiment that represents the major character of quantum superposition. Rosenblum and Kuttner point out that "Schrödinger probed that Heisenberg's theory was logically identical to his own, just a different mathematical representation."²⁶ Quantum

²⁴ David Bohm and Basil J. Hiley, *The Undivided Universe: An Ontological Interpretation of Quantum Theory*, Reprint edition (London u.a.: Routledge, 1995), 125.

²⁵ Rosenblum and Kuttner, *Quantum Enigma*, 148.

²⁶ Rosenblum and Kuttner, 77.

superposition is demonstrated not only by Schrödinger's wave equation but also by Heisenberg's quantum theory explaining quantum jumps. The wave character of a quantum entity can be represented as the phenomenon of quantum superposition.

The Copenhagen Interpretation

It is widely accepted that the Copenhagen interpretation is the orthodox interpretation of quantum physics. Stapp points out that the Copenhagen interpretation was "bitterly challenged at first but became during the 1930s the orthodox interpretation of quantum theory."²⁷ The Copenhagen interpretation was established at Bohr's institute in Copenhagen. In the quantum measurement problem, when an observer measures the position or the momentum of a quantum entity, the wave character of the entity collapses. As mentioned above, every object has the fundamental nature of a wave; for a quantum entity, its wave character is so strong that it can be regarded as a wave. With regard to the quantum measurement problem, the Copenhagen interpretation asserts that at the microscopic level, the state of a quantum entity is determined by the observer. The essence of the Copenhagen interpretation is that "an observation produces the property observed."²⁸ As a matter of fact, the Copenhagen interpretation is just a description of phenomena rather than a way of interpretation. Stapp points out that the logical essence

²⁷ Henry P. Stapp, *Mind, Matter and Quantum Mechanics* (Berlin ; New York: Springer-Verlag, 1993), 49.

²⁸ Rosenblum and Kuttner, *Quantum Enigma*, 126.

of the Copenhagen interpretation can be explained in two assertions.²⁹ First, the quantum-theoretical formalism has to be understood pragmatically. Second, quantum mechanics offers reasonable explanations about atomic phenomena. In this way, the Copenhagen interpretation has been regarded as a practical solution to solve the quantum measurement problem. However, the Copenhagen interpretation can give rise to many questions. John Wheeler asks, “How can one clearly draw a line between the two [the microscopic and the macroscopic level]? By how much must a quantum event be magnified to become a classical observation? When does probability give way to actuality?”³⁰

Quantum physicists attempted to avoid philosophical issues on the measurement problem by applying the Copenhagen interpretation, but the fundamental presupposition of the Copenhagen interpretation is an issue. The Copenhagen interpretation presupposes that we need to distinguish between the macroscopic and the microscopic realm. That is to say, the Copenhagen interpretation “splits the world into two: a quantum world, in which probabilities play themselves out, and a classical world, in which actual measurement are made.”³¹ It would be very convenient to separate the microscopic from the macroscopic level because we do not have to ponder on the meaning of the Copenhagen interpretation in relation to our reality. The Copenhagen interpretation has been applied only to the microscopic realms. Rosenblum and Kuttner point out that

²⁹ Stapp, *Mind, Matter and Quantum Mechanics*, 61.

³⁰ John Archibald Wheeler and Kenneth W. Ford, *Geons, Black Holes, and Quantum Foam: A Life in Physics*, 1 edition (New York: W. W. Norton & Company, 2000), 269.

³¹ Wheeler and Ford, 269.

according to the Copenhagen “observation creates the physical reality of the microscopic world.”³² However, if the Copenhagen interpretation is accepted in the macroscopic realms, it means that the world in which we live is created by our observation. Recently, with the development of technology, the boundaries between the microscopic and the macroscopic realms have started to be fractured. For example, atoms had been measured and observed only by special measuring devices, but IBM physicists, by spelling out the word *IBM* with thirty-five argon atoms in 1989, demonstrated that atoms can be individually manipulated and seen with the naked eye.³³ Kuttner and Rosenblum write that “the vast no-man’s-land that once separated the microscopic and the macroscopic realms, allowing a tacit acceptance of this view, has been invaded by technology.”³⁴ In other words, we are required to reconsider whether it is appropriate to separate the microscopic and the macroscopic realms.

Quantum physicists wanted to obtain objectivity through the Copenhagen interpretation, but the quantum measurement problem necessarily leads to the problem of consciousness as subjectivity. Observation involves consciousness or a conscious observer. A quantum entity takes on its own character according to the observer’s choice, which is related to consciousness. In relation to the quantum measurement problem,

³² Rosenblum and Kuttner, *Quantum Enigma*, 207.

³³ Rosenblum and Kuttner, 139.

³⁴ Fred Kuttner and Bruce Rosenblum, “The Conscious Observer in the Quantum Experiment,” in *Quantum Physics of Consciousness*, ed. Lana Tao (Cambridge: Cosmology Science Publishers, 2011), 161.

Heisenberg points out that “we are ourselves both players and spectators.”³⁵ John von Neumann notices that if the Copenhagen interpretation is universally applied, we inevitably encounter the issue of consciousness.³⁶ For this reason, many quantum physicists have interest in the issue of consciousness increasingly. Also, the Copenhagen interpretation threatens the ‘classical’ objectivity. Objectivity can be obtained only if a phenomenon is observed regardless of an observer. However, if the character of an object is influenced by the observer, the classical meaning of objectivity in physics has to be shifted. Barad points out that objectivity is not so much about “producing undistorted representations from afar” as about “being accountable to the specific materializations of which we are a part.”³⁷ The most serious issue of quantum physics is not randomness of quantum entities, but subjective reality in which the subject is engaged. In this sense, the Copenhagen interpretation can mean that consciousness creates the physical reality at least at the microscopic world. If the distinction between the microscopic and the macroscopic realms is removed, the Copenhagen interpretation can mean that there is no objective world independent of consciousness. The Copenhagen interpretation can be regarded as an interpretation or as a compromise to explain the quantum measurement problem, but it can be a watershed leading to the complete change of a view of the physical world. In this sense, Stapp holds that “the verdict of history will be that the

³⁵ Heisenberg, *Physics and Philosophy*, 32.

³⁶ Rosenblum and Kuttner, *Quantum Enigma*, 127.

³⁷ Barad, *Meeting the Universe Halfway*, 91.

Copenhagen interpretation was a half-way house; it was a right fact that was the first step of an about-face.”³⁸

The Uncertainty Principle

To understand the Copenhagen interpretation, we need to explore at least two principles: Heisenberg’s uncertainty principle and Bohr’s complementarity principle. Heisenberg’s uncertainty principle is that “the more accurately you measure an object’s position, the more uncertain you will be about its speed.”³⁹ According to the uncertainty principle, one cannot accurately measure both the position and the momentum of a quantum object because the process of measurement creates disturbances to the observed. To measure the position of a particle, scientists usually bounce light off it. To do so, the photon of the light has to hit the particle as gently as possible. However, to find the exact position of the particle, the wavelength of the photon has to be short because it is impossible for a photon with a long wavelength to find the position of the particle due to dispersion. In other words, the more accurately we want to find the position of a particle, the shorter the wavelength of a photon has to be. It is known that the position of an electron can be measured by photons with at least the wave length of the gamma ray. However, a photon with a short wavelength gives a particle a hard kick, which leads to a serious disturbance. Heisenberg writes: “the electron has been pushed by the light

³⁸ Stapp, *Mind, Matter and Quantum Mechanics*, 223.

³⁹ Rosenblum and Kuttner, *Quantum Enigma*, 134.

quantum, it has changed its momentum and its velocity, and one can show that the uncertainty of this change is just big enough to guarantee the validity of the uncertainty relations.”⁴⁰

The experiment of measuring an electron around the nucleus is different from a general prediction. We could guess that an electron is orbiting around the nucleus and that a photon is shot to hit the electron and that we obtain an approximate position of the electron because of disturbance. However, Heisenberg writes that in the actual experiment, “the first light quantum is sufficient to knock the electron out of the atom and one can never observe more than one point in the orbit of the electron.”⁴¹ That is to say, what we can observe is not an approximate position and momentum of an electron but a snapshot of the electron moving away from the atom. Also, the position of the electron is completely unpredictable.

From a philosophical perspective, the uncertainty principle is consistent with the Copenhagen interpretation because both support the view that subjectivity cannot be ruled out in observation. However, the uncertainty principle is different from the Copenhagen interpretation at least in two aspects. First, the uncertainty principle is concerned with an observer’s influence on the property observed, whereas the Copenhagen interpretation asserts that “an observation produces the property observed.”⁴² The uncertainty principle refers to the intervention of the observer, but the Copenhagen interpretation infers the creation of the property observed. According to the

⁴⁰ Heisenberg, *Physics and Philosophy*, 21–22.

⁴¹ Heisenberg, 22.

⁴² Rosenblum and Kuttner, *Quantum Enigma*, 126.

uncertainty principle, an observer cannot help participating in the change of the property observed. Second, the uncertainty principle can be easily applied to the macroscopic realms while the Copenhagen interpretation is currently applicable only to the microscopic realms. Disturbances during observation take place not only in the level of quantum objects but also in the macroscopic world. At the microscopic level, the disturbance between an observer and an object cannot be ignored. At the large-scale object level, the disturbance is so small that one can ignore the effect of the disturbance.

The Complementarity Principle

Fundamental to the Copenhagen interpretation is the understanding of the complementarity principle. Although Bohr developed the complementarity principle of quantum physics, he did not give an account of it.⁴³ While the uncertainty principle attends to the measurement problem resulting from an observer's intervention, the complementarity principle focuses on the ontological change of matter which results from conscious observation. Bohr's complementarity principle is grounded in his complementary framework, according to which a quantum entity has dual characters: a wave property and a particle property. According to Bohr's complementarity principle, when one tries to find the position of a quantum entity, its wave character disappears. On the contrary, if one chooses to observe the wave property of a quantum entity, its position cannot be measured. The complementarity principle says that the complementary traits of

⁴³ d'Espagnat, *On Physics and Philosophy*, 101.

a quantum object—a particle character and a wave character—cannot be observed at the same time. The complementarity principle shows the intrinsic, indeterminate nature of a quantum object. By virtue of the complementarity principle, Rosenblum and Kuttner point out that “we must consider only one aspect at a time by specifying the kind of observation we are making, the experiment we are doing.”⁴⁴

Heisenberg’s uncertainty principle has been noted as representing the relationship between subject and object, but it is not enough to show the reciprocal relation during observation. Bohr claims that what matters is not a disturbance occurring in the process of measurement but “the determinateness of the properties and boundaries of the object, which depend on the specific nature of the experimental arrangement.”⁴⁵ Barad distinguishes the uncertainty principle from the complementary principle, referring to the former as an epistemic interpretation and the latter as an “ontic-sematic interpretation of the reciprocity relations.”⁴⁶ Both the uncertainty principle and the complementarity principle seem to be relevant to the observer, but the complementarity principle is concerned with the radical nature of matter. According to the complementarity principle, when matter shows a wave nature, the particle nature of the matter perishes. Conversely, when matter represents a particle nature, the wave nature of the matter disappears. The wave-particle duality of a quantum entity cannot be observed simultaneously. That is to say, the complementary characteristics of matter have nothing to do with the perspective of the observer. The complementarity principle results not from the limitations of the

⁴⁴ Rosenblum and Kuttner, *Quantum Enigma*, 136.

⁴⁵ Barad, *Meeting the Universe Halfway*, 302.

⁴⁶ Barad, 302.

human being but from the ontic nature of matter. Therefore, when we want to observe a quantum entity, we have to decide which of the two natures we will observe. Although the observer-created world of quantum mechanics is related not only to the uncertainty principle but also to the complementarity principle, the complementarity principle is more fundamental to the observer-created world because it leads to an ontic change.

The complementarity principle is more intimately connected with consciousness than the uncertainty principle, because it is associated with human free choice. Both the uncertainty principle and the complementarity principle are relevant to consciousness because the two principles support the view that the property of a quantum entity involves the subjectivity of an observer. Philosophers made clear that subjectivity interrelates with consciousness. Also, human free choice has been regarded as a major function of consciousness. To say that the state of a quantum entity depends on human free choice is to say that consciousness creates the world observed. However, some physicists reject the claim that consciousness or conscious choice creates the state of matter. Therefore, they argue that consciousness does not involve the state of a quantum entity because a non-conscious robot can do the same thing as a conscious human being. This is called the robot argument. However, Kuttner and Rosenblum point out that “for any experiment to be meaningful, a human must eventually evaluate it.”⁴⁷ In other words, even if a robot does the quantum experiment, the robot has to have the process of choice, according to which the state of a quantum entity is decided. Suppose that the robot chooses by a coin toss which character to observe. If the robot chooses to observe the particle character of a quantum entity, the entity is observed as a particle; vice versa. It is

⁴⁷ Kuttner and Rosenblum, “The Conscious Observer in the Quantum Experiment,” 160.

choice rather than consciousness that creates the property observed. However, the experiment itself has to be contrived by a conscious human being who is aware of the result of choice. Since for the human being, choice depends on consciousness, we can say that consciousness influences the ontic state of a quantum object.

4.3. Stapp's Mindful Universe: Consciousness beyond Matter

Consciousness as Something Non-physical

While the Copenhagen interpretation is not directly concerned with consciousness, orthodox quantum mechanics maintains that consciousness plays a pivotal role in the quantum measurement problem. Orthodox quantum mechanics, which is grounded in the Copenhagen interpretation, is complemented by von Neumann's mathematical formulation and by his interpretation of the Copenhagen interpretation. He demonstrated that "no physical system obeying the laws of physics could collapse a superposition state wavefunction to yield a particular result."⁴⁸ He comes to the conclusion that the collapse of the wavefunction occurs only in the conscious mind.⁴⁹ Stapp points out that "this orthodox quantum ontology is in essential accord with the

⁴⁸ Rosenblum and Kuttner, *Quantum Enigma*, 238.

⁴⁹ Rosenblum and Kuttner, 238.

dualistic ideas of Descartes.”⁵⁰ Relying on orthodox quantum mechanics, Stapp asserts that consciousness is something non-physical rather than just the function of a brain. The Copenhagen interpretation does not refer to the role of consciousness, but the subject of observation must be a human being. Stapp notices that the act of measurement results from a human being’s free choice and that the free choice is associated with consciousness. For this reason, Stapp understands that in the quantum measurement problem, non-physical consciousness creates the property observed, distinguishing between the matter-matter interaction and the mind-matter interaction.⁵¹

Stapp takes seriously both quantum physics and the role of consciousness because classical mechanics cannot appropriately explain the world in which we live. He points out that classical physics describes that “the entire history of the universe is fixed for all time, once the initial conditions and the mathematical laws of motion are specified.”⁵² As a matter of fact, classical mechanics does not allow human consciousness or will to intervene in the world. In Stapp’s view, theories of classical physics do not accommodate normal human experience, whereby we know that our bodily actions are obviously influenced by our mental intention. Stapp writes that “an adequate scientific theory of reality ought to accommodate all the regularities of human experience.”⁵³ In this sense,

⁵⁰ Henry P. Stapp, “Quantum Reality and Mind,” in *Quantum Physics of Consciousness*, ed. Subhash Kak, Roger Penrose, and Stuart Hameroff (Cambridge, MA: Cosmology Science Publishers, 2011), 19.

⁵¹ Stapp, *Quantum Theory and Free Will*, 6–7.

⁵² Henry P. Stapp, “A Quantum Theory of the Mind-Brain Interface,” in *Mind, Matter, and Quantum Mechanics* (Berlin: Springer, 1993), 4.

⁵³ Stapp, *Quantum Theory and Free Will*, 6.

although we are likely to think that quantum mechanics is different from our general experience, Stapp points out that “quantum mechanics is more understandable than classical mechanics” since it is “more deeply in line with our common sense ideas about our role in nature than the automaton notion promulgated by classical physics.”⁵⁴ If human beings are regarded as mechanical automata, virtues of human beings are likely to be dismissed. Stapp criticizes that the “material picture of human beings erodes not only the religious roots of moral values but the entire notion of personal responsibility.”⁵⁵

Of course, it is difficult to scientifically consider consciousness as something non-physical. However, Stapp contends that we can solve many mysterious problems in the world by including non-physical consciousness. With regard to consciousness, the “hard problem” or the “explanatory gap” has been an issue. As mentioned above, both the “hard problem” and the “explanatory gap” are related to subjective experience. The problem or the gap is that we can hardly explain subjective experience only by physical science. Stapp claims that the “hard problem” can be solved only if non-physical consciousness is regarded as playing a pivotal role in reciprocal relations between subject and object. Stapp writes that “this hard problem is...a mystery insofar as one’s thinking is imprisoned within the fundamentally invalid conceptual framework postulated by classical physics, which has no rational place for consciousness.”⁵⁶

Furthermore, Stapp rejects non-orthodox quantum theories since they cannot explain the correlations between our physical body and mental intention. Some physicists

⁵⁴ Stapp, *Mindful Universe*, 7.

⁵⁵ Stapp, 5.

⁵⁶ Stapp, 83.

have tried to eliminate the role of the conscious observer against the implication of orthodox quantum mechanics. Hugh Everett's many worlds interpretation, David Bohm's pilot-wave theory, the Ghirardi-Rimini-Weber theory, and Roger Penrose's Objective Reduction theory attempt to resist observer-created reality. However, Stapp criticizes that "such theories are necessarily incomplete, compared to the orthodox theory, because they cannot describe the dependence of our physical behavior upon our mental intentions, which are left completely out of the dynamics."⁵⁷

Free Choice

Fundamentally agreeing with orthodox quantum mechanics, Stapp draws attention to the free choice of consciousness. The notion of free choice is a restricted one when compared with that of freedom. Nicholas Maxwell describes freedom as "the capacity to achieve what is of value in a range of circumstances."⁵⁸ Just as Dennett points out, this definition of freedom "leaves wide open the question of just what is of value."⁵⁹ While the definition of freedom involves vague notions, Stapp explains, in relation to the quantum measurement problem, that free choices are "free in the very specific sense that they are not determined by the prior quantum mechanical state of the universe."⁶⁰ For

⁵⁷ Stapp, *Quantum Theory and Free Will*, 74.

⁵⁸ Quoted in Daniel C. Dennett, *Freedom Evolves*, Reprint edition (New York: Penguin Books, 2004), 302.

⁵⁹ Dennett, 302.

⁶⁰ Stapp, *Quantum Theory and Free Will*, 10.

Stapp, free choice is the ability of consciousness which creates or intervenes the state of objects. Although the free choice of the human being is definitely relevant to the complicated processes of the brain, Stapp postulates that consciousness as something non-physical works prior to the actions of the brain.

Drawing on John von Neumann's orthodox quantum theory, Stapp points out that the quantum measurement process consists of two different sub-processes: Process 1 and Process 2.⁶¹ He explains that "Process 2 is the quantum analog of the classical process of evolution of material systems."⁶² In other words, Process 2, the material part of nature, can be equated with the Schrödinger equation; hence, it has nothing to do with the mental part. Process 2 generates a continuum of potential worlds rather than a single world that we experience. Therefore, Process 1 is required in order to explicate what happens in the microscopic level of Process 2. In relation to this numbering, Stapp writes that the numbering "reflects the fact that the very first action had to choose and actualize some particular state of reality, not just shuffle around information that was already present."⁶³

Stapp emphasizes Process 1 since it is the process in which an observer's consciousness influences the state of quantum entities. He writes that "our personal conscious thoughts enter the quantum dynamics via these abrupt Process 1 actions."⁶⁴

⁶¹ John von Neumann, *Mathematical Foundations of Quantum Mechanics*, trans. Robert T. Beyer, 1st edition (Princeton Chichester: Princeton University Press, 1955), 420.

⁶² Stapp, *Quantum Theory and Free Will*, 10.

⁶³ Stapp, 10.

⁶⁴ Stapp, 10.

According to Stapp, the quantum measurement process is composed of two choices: “a free choice on the part of the experimenter” and “a choice on the part of nature.”⁶⁵ The first choice is directly concerned with human consciousness, which gives rise to a causal gap between the physical and the non-physical. It represents that a conscious observer decides to measure the position of a quantum entity. Stapp writes that “a reduction of the uncertainty represented by this quantum statistical mixture requires that a particular probing action, specified by a ‘Yes/No’ question, be chosen by an observer.”⁶⁶ Once the observer chooses the Yes option, the answer is made concrete by the second choice on the part of nature. The second choice denotes the dynamical process in which the position of a quantum entity is actually determined by nature’s choice. This second choice is related to quantum randomness. Stapp explains that “the infamous element of quantum randomness enters only into the second choice: the choice on the part of nature.”⁶⁷ In other words, Stapp explains that the first choice is “an intentional probing action that partitions a continuum into a collection of discrete experientially different possibilities” while the second “selects one of these discrete possibilities, and obliterates the rest.”⁶⁸

Although Stapp does not directly refer to the similarity between the act of human consciousness and the act of matter, his description of acquiring knowledge represents that the process of consciousness is analogous to nature’s choice of Process 2. Expanding on the relationship between human consciousness and matter, Stapp comes to the

⁶⁵ Stapp, *Mindful Universe*, 157.

⁶⁶ Stapp, *Quantum Theory and Free Will*, 61.

⁶⁷ Stapp, *Mindful Universe*, 158.

⁶⁸ Stapp, 96.

conclusion that the universe is a mindful universe with consciousness. That is to say, he implies that matter has consciousness. According to him, the mindful universe means, at least, that consciousness cannot be confined to human beings. In order to claim that matter involves consciousness, we have to be able to find the similarity between the act of human consciousness and the act of matter. Stapp describes the process of how a human brain acquires knowledge. He writes that “each subjective experience occurs in conjunction with an abrupt jump of the state of the brain of the experiencing observer/agent to a state that is compatible with that experience.”⁶⁹ He supposes that the state of someone’s brain is denoted as a point among tremendous stars representing possible experiences. Stapp goes on to explain that “each once in a while, in association with an occurring increment of knowledge, the moving point representing the evolving state of the brain suddenly jumps to the associated star.”⁷⁰ His description of acquiring knowledge can be compared to a random jump of a quantum entity. Even though we cannot comprehend what a quantum entity experiences during the process of being observed, its experience gives rise to new information from the encounter with an observer. The quantum entity obtains new information and takes a new position.

⁶⁹ Stapp, 156.

⁷⁰ Stapp, 157.

The Quantum Zeno Effect

Stapp argues that non-physical consciousness influences the physical world. More specifically, he contends that the act of measurement by a conscious observer has an impact on matter. Stapp writes that “our conscious free choices and mental efforts enter naturally, according to the quantum mechanical dynamical laws, into the evolution of the psycho-physical universe.”⁷¹ Stapp takes the example of the quantum Zeno effect in order to prove interactions between an observer and a quantum entity.⁷² The quantum Zeno effect states that we can stop a moving quantum entity if we measure it frequently enough with regard to certain measurement setting. Theoretically, when an atom decays from an upper state to a lower one, it can be discovered in the original state if the system is observed right after the decay.⁷³ However, practically, it is impossible to demonstrate the quantum Zeno effect. First, we cannot measure a particle with such a high frequency. Also, even if we measure a particle with such a high frequency, the measurement itself will cause another particle to occur or change the system completely. If the interval of measurement is longer than a specific interval, the speed of the particle is accelerated. Therefore, the quantum Zeno effect is also called the anti-quantum Zeno effect. The

⁷¹ Stapp, *Quantum Theory and Free Will*, 42.

⁷² Zeno’s paradoxes are a set of philosophical paradoxes which logically prove that everything stays still and that motion is just an illusion. Achilles and the tortoise, one of Zeno’s paradoxes, says that if the tortoise has a head start of 100 meters over Achilles, Achilles cannot overtake the tortoise. When Achilles reaches the tortoise’s starting point, the tortoise runs farther during the time. Therefore, even if this process is infinitely repeated, Achilles cannot overtake the tortoise. The quantum Zeno effect borrows the concept of Zeno’s paradoxes, claiming that observation can stop a moving quantum entity.

⁷³ Rosenblum and Kuttner, *Quantum Enigma*, 250.

quantum Zeno effect represents that the act of measurement influences the movement of the observed object even if the influence happens in the opposite way of the observer's expectation.

Stapp applies the quantum Zeno effect to the relation between our mental intentions and our bodily actions via the brain. In his view, the quantum Zeno effect implies that our mental intentions can affect the speed of our bodily action. Stapp asserts that it is reasonable to suggest that the quantum Zeno effect can occur in the brain because our mental intentions more easily give impacts "on the observer/actor's sensitive brain than on a perceived brute external system."⁷⁴ Stapp writes that "the behavior of the brain...can be significantly influenced by 'free choices' made by human observers pertaining to which probing action to instigate, and when to do so."⁷⁵ He suggests that when we build a template for action, a process in which the brain constructs a pattern of neurological behavior, it is more reasonable to analyze it with orthodox quantum mechanics. Stapp asks, "Because we know that our thoughts and mental efforts exist, and hence probably have an important function, is it not an irrational tour de force to try to show that they exist yet have no causal power?"⁷⁶

Stapp's argument is not only based on orthodox quantum mechanics but also compatible with philosophers' theories reflecting on human experience. He takes an example of William James's philosophy of volition. Stapp quotes James's words in a

⁷⁴ Stapp, *Quantum Theory and Free Will*, 42.

⁷⁵ Stapp, 42.

⁷⁶ Stapp, 43.

section *Volitional Effort is Effort of Attention* in the latter's book *Psychology: The Briefer Course*.

The essential achievement of the will, in short, when it is most "voluntary," is to attend to a difficult object and hold it fast before the mind. ... Effort of attention is thus the essential phenomenon of will... Consent to the idea's undivided presence, this is effort's sole achievement... Everywhere, then, the function of effort is the same: to keep affirming and adopting the thought which, if left to itself, would slip away.⁷⁷

He explains that James's explanation of the effect of volition in mind-brain process is consistent with the role of consciousness in quantum physics.⁷⁸ Stapp claims that the world is constituted of "an informational structure that causally links the two elements that combine to constitute actual scientific practice, namely the psychologically described contents of our streams of conscious experiences and the mathematically described objective tendencies that tie our chosen actions to experience."⁷⁹ He writes that "classical physics systematically exorcizes all traces of mind from its precept, thereby banishing any logical foothold for recovering mind."⁸⁰

⁷⁷ Henry Stapp, "Whitehead, James, and the Ontology of Quantum Theory," *Mind and Matter* 5, no. 1 (2007): 100.

⁷⁸ Stapp, *Mindful Universe*, 38.

⁷⁹ Stapp, 38.

⁸⁰ Stapp, 39.

Ontology Based on Orthodox Quantum Mechanics

Stapp proposes an ontology based on quantum physics by drawing on the connection between orthodox quantum mechanics and Whitehead's process theory. When dealing with orthodox quantum mechanics, Stapp takes into consideration Relativistic Quantum Field Theory (RQFT). The original version of quantum mechanics did not reflect the theory of relativity. In the late 1940's S. Tomonaga and J. Schwinger introduced the relativistic generalization of quantum mechanics and developed RQFT. The key characteristic of RQFT is noticed by comparing with Non-Relativistic Quantum Theory (NRQT). While in NRQT "each measurement event was assumed to occur globally over all space at an instant of time,"⁸¹ RQFT states that a spatial variable "specifies a continuous three-dimensional surface in the four-dimensional spacetime continuum, with every point on that surface spacelike-separated from every other point."⁸² In RQFT, the states of quantum entities are not determined at a certain time. Stapp writes that "the temporal advance from one global instant to the next can be confined to a small spatial region."⁸³ He points out that the evolutionary process of entities in process thought is consistent with interactions of quantum entities in RQFT. Stapp notices that the "Whiteheadian connections between objective potential and subjective knowledge" correspond to Heisenberg's quantum ontology.⁸⁴ In Whitehead's

⁸¹ Stapp, *Quantum Theory and Free Will*, 39.

⁸² Stapp, *Mindful Universe*, 94.

⁸³ Stapp, *Quantum Theory and Free Will*, 39.

⁸⁴ Stapp, *Mindful Universe*, 95.

conception, a “growing actual spacetime region” is filled with not only actual entities but also possibilities.⁸⁵ Stapp points out that Whitehead’s theory is compatible with Heisenberg’s notion of “the transition from the possible to the actual.”⁸⁶

Stapp develops a non-anthropocentric quantum ontology by claiming that every entity has the mental. Stapp’s quantum ontology is grounded in his reflection on the quantum measurement problem. Ontology based on orthodox quantum mechanics is likely to be anthropocentric because orthodox quantum mechanics requires a conscious observer in order to explain the reduction or collapse of the wavefunction of quantum entities. We can suppose two ways of developing quantum ontology so that it may be applied to the whole universe. First, we can suggest a non-anthropocentric quantum ontology by suggesting that every entity has something mental like consciousness. Second, quantum ontology can be expanded if we can prove that human consciousness influences the whole universe. Stapp takes the first option to develop a non-anthropocentric quantum ontology which is applicable to the whole universe. He writes that “every quantum event is associated with an element that cannot be adequately conceptualized in terms of the precepts of classical physics” and that the element involves “our conscious thoughts, ideas, and feelings.”⁸⁷

Specifically, Stapp introduces Whitehead’s process ontology into orthodox quantum mechanics so that he may support a non-anthropocentric ontology. According to

⁸⁵ Stapp, 92.

⁸⁶ Heisenberg, *Physics and Philosophy*, 28.

⁸⁷ Stapp, *Mindful Universe*, 98.

Whitehead's process thought, an actual entity consists of two poles: a physical pole and a mental pole. Each pole has an input and an output. Stapp notices in process thought that "the mental inputs and outputs have the ontological character of thoughts, ideas, or feelings."⁸⁸ He goes on to explain that the mental inputs derive from the mental outputs of the prior events and that "the mental output of the current occasion is the bud of experience created by/at this current event or occasion."⁸⁹ Whitehead postulates that actual occasions happen not only at the high-grade level but also at the lowest-grade level. Stapp suggests that "the Whitehead quantum ontology is essentially an ontologicalization of the structure of orthodox relativistic quantum field theory, stripped of any anthropocentric trappings, but supplied with an internal creative process that makes ideas dynamically effective."⁹⁰ In the Whiteheadian ontologicalization of quantum theory, Stapp identifies a quantum reduction event with Whitehead's actual entity.⁹¹

The Radical Reality of All

Attending to the character of consciousness, Stapp argues that the universe is mind-like rather than matter-like. In other words, Stapp contends that the radical reality of everything is consciousness as something non-physical. He prioritizes mind, but it

⁸⁸ Stapp, 96.

⁸⁹ Stapp, 96–97.

⁹⁰ Stapp, 97.

⁹¹ Stapp, 96.

does not mean either that material is imaginary or that he is a radical dualist. By referring to the universe as a mindful universe, he asserts that the universe is psychophysical; that is to say, mind is embedded in the universe that seems mechanical. For Stapp, “our physically efficacious minds” are “integrated into the unfolding of uncharted and yet-to-be-plumbed potentialities of an intricately interconnected whole.”⁹² His claim is based on the quantum reality in which quantum entities subsist as potentialities before they are measured.⁹³ Stapp describes the original state of quantum entities as potentialities, “images of what the future perceptions might be.”⁹⁴ While Heisenberg understands the quantum reality as possibilities, Stapp focuses on the similarity of behavior between the quantum reality and consciousness. Stapp contends that the quantum state as potentialities is mind-like not only because it is “evanescent” but also because it “rapidly changes like an idea does.”⁹⁵

Also, Stapp notices that in the quantum measurement process, the possible can be transformed into the actual, but not vice versa. For this reason, he contends that something mind-like is more radical than something matter-like. The quantum measurement process is a process in which “the observation itself changes the probability function discontinuously; it selects of all possible events the actual one that has taken

⁹² Stapp, 117.

⁹³ Heisenberg, *Physics and Philosophy*, 28.

⁹⁴ Stapp, *Quantum Theory and Free Will*, 71.

⁹⁵ Stapp, 71.

place.”⁹⁶ Stapp clarifies the role of a conscious observer by pointing out that “what human consciousness does...is to initiate...a response on the part of nature that actualizes some aspect of reality that was, until then, merely a potentiality.”⁹⁷ However, Stapp points out that the quantum measurement process does not happen in the reverse direction, that is, from the actual to the possible. He quotes Schrödinger, who writes “we simply cannot see how material events can be transformed into sensation or thought.”⁹⁸ Therefore, Stapp suggests that the reality of matter is not matter but mind.

By drawing on the experiment of quantum non-locality, Stapp claims that quantum mechanics can be applied to the realm of the macroscopic level. It seems that quantum mechanics is concerned only with the microscopic world. Also, Newton’s classical mechanics and Einstein’s theory of relativity still work well in the macroscopic level. Stapp takes an exemplary experiment which proves quantum non-locality. This experiment was already proposed by John Bell’s quasi-classical statistical theory. The experiment is an observation of the movement about two separated spin-1/2 particles. The experiment shows that if one particle moves, the other particle moves at the exact same time in precise coordination with the separated particle even if the two particles are separated by a long distance. Einstein called the result of this experiment “spooky action at a distance” because it denies the theory of relativity. In Stapp’s view, Einstein understands the experiment as a spooky action since Einstein’s analysis is based on

⁹⁶ Heisenberg, *Physics and Philosophy*, 28.

⁹⁷ Stapp, *Quantum Theory and Free Will*, 72.

⁹⁸ Stapp, 72.

classical mechanics. Stapp writes that “the phenomena are rationally understandable in terms of an evolving quantum state of the universe that represents potentialities for experience.”⁹⁹

Stapp proposes that human consciousness could have emerged as an extension of the consciousness embedded in nature. In other words, Stapp conceives that consciousness as the fundamental reality of matter has subsisted even prior to the emergence of conscious organisms. He writes that “there exists, in addition to these evanescent human mental elements, a more enduring reality within which our mental aspects are embedded, or from which they emerge.”¹⁰⁰ According to Stapp, consciousness is not only in human beings but also in nature; furthermore, the underlying radical reality has the same ontological nature as the mentality of human beings.¹⁰¹ He holds that consciousness has subsisted originally in the universe as something similar to human consciousness because “all of reality is made of one single kind of stuff” whose underlying reality is mental.¹⁰²

⁹⁹ Stapp, 91.

¹⁰⁰ Stapp, 73.

¹⁰¹ Stapp, 73.

¹⁰² Stapp, 73.

4.4. Stapp's Notion of Consciousness

Subjectivity and the Particularities of the Human Being

Orthodox quantum mechanics scientifically supports the view that subjectivity has to be accepted. If subjectivity is denied, the notion of consciousness based on subjectivity will be rejected. While from a philosophical perspective it is easy to admit that subjectivity should be taken seriously, most scientists try to exclude subjectivity since science is grounded in the premise that all of reality can be objectively measured or observed. However, orthodox quantum mechanics contends that objectivity cannot be achieved at least at the microscopic level because the state of an observed quantum system necessarily depends on the observer. Any quantum entity cannot be objectively observed regardless of the observer. Stapp points out that “the original form of quantum theory is subjective, in the sense that it is forthrightly about relationships among conscious human experiences.”¹⁰³ Quantum mechanics serves to scientifically buttress the view that we should take subjectivity seriously.

Focusing on the role of free choice in the quantum measurement problem, Stapp understands that human consciousness is deeply concerned with awareness. Most quantum physicists take it for granted that subjectivity cannot be ruled out in the process of measurement. From the perspective of quantum physics, subjectivity is related to two things: an observer's choice and disturbance in measurement. Although most quantum

¹⁰³ Stapp, *Mindful Universe*, 11.

physicists take subjectivity seriously, they avoid dealing with human consciousness. However, Stapp deals with human consciousness as awareness since an observer's free choice is recognized by the observer's consciousness. For Stapp, awareness is the main feature of human consciousness.

Although Stapp comes to the conclusion that the universe is mindful, he thinks of the role of human consciousness as unique in the quantum measurement process. According to Stapp, human beings take a special position because of their consciousness by which they affect the state of matter. Human consciousness is related to many activities of the mental, but Stapp deals only with the ability of human free choice. His concept of free choice is very simple in that he understands free choice as the ability of choosing the state of a quantum entity between two states: a particle and a wave. At least in quantum physics, his claim that only human beings create the property observed is reasonable because the choice of how to observe a quantum entity cannot be made by organisms or matter other than human beings. In this sense, he distinguishes between the mind-matter interaction and the matter-matter interaction.¹⁰⁴ He holds that only the mind-matter interaction is associated with human consciousness. The mind-matter interaction gives rise to the ontological change of the observed matter, whereas the matter-matter interaction does not.

However, Stapp's distinction between the mind-matter interaction and the matter-matter interaction can be philosophically challenged. He claims that only the human being can have the mind-matter interaction because of human consciousness and that the mind-matter interaction causes the state of matter to alter. Stapp's view results from his

¹⁰⁴ Stapp, *Quantum Theory and Free Will*, 6–7.

anthropocentric view. From the philosophical perspective of subjectivity, we cannot say that only human beings have subjective experience. In other words, other organisms and even matter can have subjective experience. Assuming that consciousness is equated with subjective experience, we can say that matter has consciousness. Stapp understands the mind-matter interaction from the first-person perspective and the matter-matter interaction from the third-person perspective. In the matter-matter interaction, an observer from the third-person perspective cannot recognize what happens between matter and matter. However, it is possible that matter influences other matter in a non-physical way as human consciousness does. Similarly, if we observe the mind-matter interaction from the third person perspective, we cannot notice what occurs between the observer and the observed. Stapp distinguishes between the mind-matter and the matter-matter interaction, but from the third-person perspective, we cannot realize what takes place not only in the mind-matter interaction but also in the matter-matter interaction. Stapp understands that human consciousness is distinguished from other entities' mind, but from the perspective of subjectivity, it is possible that matter with something mind-like creates ontological changes.

Free Choice and Dualism

Although Stapp is not a dualist, his argument about free choice is close to dualism in that free choice, he claims, can be made without the influence of the physical. Radical dualism has to meet two conditions: the existence of the non-physical and complete separation between the physical and the non-physical. Stapp's thoughts do not satisfy the

latter condition inasmuch as he does not contend that the non-physical can exist independently of the physical. However, he holds that free choice can be separated from the physical world. He writes that “the free in free choice means, specifically, that this choice is not determined by prior physically-described aspects of the universe alone.”¹⁰⁵ Given that the ability of free choice belongs to consciousness, Stapp’s conception of consciousness would be that consciousness is non-physical and separable from the physical. The word separable means independent process, not independent existence. Stapp’s thoughts about consciousness are not compatible with classical mechanics. Classical physicists reject dualism, whereas Stapp’s notion of consciousness is close to dualism.

Furthermore, Stapp argues that the fundamental reality of the physical universe is mind rather than matter. Although it is difficult to accept that the universe is mind-like, Stapp’s argument logically makes sense. First, he points out that quantum entities subsisting like possibilities are the basic elements of matter. We can think that if the composing elements of an object are mind-like, the object is also mind-like. Second, Stapp notices that a quantum entity cannot influence consciousness, whereas consciousness affects the state of the quantum entity. That is to say, the state of a quantum entity is determined by consciousness; not vice versa. Stapp, therefore, concludes that consciousness is a more fundamental element than a quantum entity.

Stapp’s notion of human consciousness needs to be clarified in comparison with something mind-like. If consciousness is the fundamental reality of every entity in nature, we should accept that every object has consciousness. Stapp’s thoughts on orthodox

¹⁰⁵ Stapp, 42.

quantum physics imply that consciousness has existed all over every entity from the beginning of the universe. According to him, human consciousness is rooted in non-human consciousness because the former emerged from the latter. However, we need to distinguish human consciousness from something mind-like at the microscopic level. Stapp does not clarify the character of human consciousness, but in his view, the ability of free choice and the awareness of the choice can be understood as the uniqueness of human consciousness.

Quantum Physics and the Role of Consciousness

While philosophers have interest in what we should do with our consciousness, Stapp does not specifically deal with the general role of consciousness. Instead, by reflecting on the role of consciousness in quantum physics, he tries to make a bridge between philosophy and science. Without connections between science and philosophy, philosophers' thoughts and theories about the role of consciousness would be useless and physicists' would be empty. Since Descartes, science has been separated from philosophy. As Whitehead points out, "after the close of the seventeenth century, science took charge of the materialistic nature, and philosophy took charge of the cogitating minds."¹⁰⁶ It seemed that science and philosophy has developed in each in its own realm, but as a matter of fact, scientists tried to understand the human being as part of the

¹⁰⁶ Alfred North Whitehead, *Science and the Modern World* (New York: Free Press, 1997), 145.

materialistic nature. Therefore, philosophy, which deals mainly with non-physical consciousness, could not keep its own territory. An enormous gulf between science and philosophy was generated by classical physicists. Therefore, it is important that there are signs that this gulf between the two disciplines may well be overcome by scientists. Quantum physicists have found the possibility that consciousness serves to connect philosophy to science. Stapp argues for “the possibility of integrating human consciousness into the physical sciences.”¹⁰⁷ In this way, he lays the foundation for discussing the role of consciousness from a philosophical perspective.

Stapp makes a bridge in two ways over the gulf between human consciousness and the physical world. One is concerned with the role of consciousness; the other relates to the fundamental character of matter. Stapp focuses on what consciousness does in the quantum measurement process. In quantum physics, the role of consciousness seems trivial in that consciousness only serves to determine the state of a quantum object. Although the role of consciousness in quantum mechanics is restricted, Stapp notices that it scientifically proves the interaction between the mental and the physical. Orthodox quantum theory contends that the physical is affected by the mental. Stapp points out that quantum physicists “replaced the then-prevailing Newtonian idea of matter as ‘solid, massy, hard, impenetrable, moveable particles’ with a new concept that allowed, and in fact required, an entry into the causal structure of the physical effects of conscious decisions.”¹⁰⁸ In this sense, he points out that quantum mechanics elevated human

¹⁰⁷ Stapp, *Mind, Matter and Quantum Mechanics*, 221.

¹⁰⁸ Stapp, *Mindful Universe*, 7.

experience “from the role of a detached observer to that of the fundamental element of interest.”¹⁰⁹ Attending to the ability of free choice in the mind of the observer, Stapp “elevates our conscious mental aspects from causally inert by-products of physical brain activity to active participants in the unfolding of a dynamically integrated psycho-physical reality.”¹¹⁰

By claiming that the character of matter is mind-like, Stapp renders the role of consciousness more compelling. He writes that “the actual events in quantum theory are likewise idea-like: each such happening is a choice that selects as the actual.”¹¹¹ Stapp maintains that there is no place for Newtonian matter in the world of quantum physics, understanding the character of the idea-like as the fundamental structure of every entity. He writes that “orthodox quantum mechanics is Cartesian dualistic at the pragmatic/operational level, but mentalistic on the ontological level.”¹¹² If so, the role of consciousness can be thought of as more crucial. Stapp claims that if we understand the world in which we live as an idea-like one, “conscious thoughts appear to be complex wholes, not merely at the function level but also as directly experienced.”¹¹³ In this sense, human consciousness as part of complex wholes serves to directly experience the physical world.

¹⁰⁹ Stapp, “Quantum Reality and Mind,” 18.

¹¹⁰ Stapp, *Quantum Theory and Free Will*, 79.

¹¹¹ Stapp, *Mind, Matter and Quantum Mechanics*, 221.

¹¹² Stapp, “Quantum Reality and Mind,” 20.

¹¹³ Stapp, *Mind, Matter and Quantum Mechanics*, 221–22.

Although Stapp focuses on the simple process of human conscious decision, his work will be helpful in taking more seriously philosophers' research on the role of consciousness. It is often claimed that science deals only with facts, not meanings or values. In this sense, scientists tend to exclude the intervention of purposes and meanings within the physical world. Stapp points out that "eliminating this scientifically unsupported precept of the causal closure of the physical opens the way to a new phase of science-based philosophy."¹¹⁴ When viewed through the lens of classical physics, the world is likely to be regarded as meaningless and purposeless. Since philosophers usually pursue meanings and purposes,¹¹⁵ their research on the role of consciousness can be ignored by scientists. However, quantum physics scientifically supports the view that the physical world can be filled with intentional purposes and meanings. Purposes and meanings cannot infiltrate the physical world without human conscious decisions. In other words, to say that consciousness can influence the physical world is to claim that intentional purposes and meanings can be materialized in the physical world. Stapp writes that "this quantum mechanical conception provides a rationally coherent science-based foundation for human lives suffused with purpose and meaning."¹¹⁶ In this way, he tries to make a bridge between science and philosophy. Once the bridge is built, philosophers' investigation about the role of consciousness will be reconsidered even in the scientific point of view.

¹¹⁴ Stapp, *Mindful Universe*, 10.

¹¹⁵ Whitehead, *Science and the Modern World*, 142.

¹¹⁶ Stapp, *Quantum Theory and Free Will*, 80.

5. CONSCIOUSNESS RECONSIDERED

5.1. Consciousness as Something Non-physical

Drawing on the thoughts of Corrington, Yu Young-mo, and Stapp in terms of consciousness, I argue that every entity has consciousness that can be called consciousness. To provide reasons for this argument, this dissertation deals with four issues with regard to consciousness. As mentioned above, the notion of consciousness is so complex that we do not have even a satisfactory definition of consciousness.¹

Although it is taken for granted that the human being has consciousness and that the issue of consciousness is very important, many scholars were reluctant to deal with consciousness because of the complexity of its notion. However, we cannot make progress in understanding the human being if we leave consciousness veiled. In order to unravel the complexity of consciousness, this dissertation focuses on four issues of consciousness: consciousness as something non-physical, consciousness as subjectivity, the fundamental structure of consciousness, and the significance of observation. By examining what Corrington, Yu Young-mo, and Stapp say in common about the four

¹ Arne Dietrich, *Introduction to Consciousness* (Basingstoke: Palgrave, 2007), 5.

issues of consciousness, I will lay the foundation for the argument that every entity has consciousness.

Above all, the most difficult problem in consciousness studies is the problem of dualism. More specifically, it is concerned with whether consciousness can be regarded as something non-physical. Relying on the thoughts of Corrington, Yu Young-mo, and Stapp, I claim that consciousness has to be treated as involving something non-physical. Most philosophers and scientists are unwilling to deal with consciousness as relating to the non-physical because the existence of the non-physical implies agreement with radical dualism. The problem of dualism—more specifically, Cartesian dualism—is that no one can provide a satisfactory explanation of how the separate mind communicates with the physical world or the brain.² Furthermore, scientists have excluded the element of the non-physical in consciousness studies because the non-physical can be neither measured nor observed. However, Corrington, Yu Young-mo, and Stapp understand that consciousness is relevant to something non-physical, even though they do not deal with the problem of the interaction between the mind and the body.

Yu Young-mo and Corrington use the element of the non-physical in order to explain their theories relating to consciousness. Since Yu Young-mo is a theologian, he presupposes that there is something non-physical such as God, soul, and spirit. His argument is based not only on his thoughts but also on his experience in which he was awakened to recognize that the essence of the world is bintanghande. The notion of bintanghande is analogous to emptiness, but it cannot be physically explained. While Yu Young-mo assumes that consciousness is non-physical, Corrington has two reasons for

² Blackmore, *Consciousness*, 2005, 43.

the existence of the non-physical. First, Corrington's ecstatic naturalism is based on ordinal phenomenology, which claims that there are many dimensions composing every entity. Ordinal phenomenology does not exclude the possibility that the non-physical in consciousness can exist. Second, Corrington holds that consciousness is an action site on which the unconscious of nature works. In Corrington's view, if unconsciousness of nature exists and interacts with consciousness, consciousness is related with the non-physical even if consciousness per se is something physical.

We need to attend to Stapp's claim and quantum physics because the existence of the non-physical is denied mainly by scientists rather than by philosophers or theologians. By removing references to mental reality, classical physics generated a logical disconnection between the physical and the mental. Stapp points out that in the framework of classical mechanics, "we human beings were converted from sparks of divine creative power, endowed with free will, to mechanical automata."³ Orthodox quantum physics contends that observation creates the property observed. Stapp draws attention to the role of free choice in the process of observation. He points out that free choice is free in the sense that the observer's choice is irrelevant to the given state of quantum entities. Stapp writes that "this choice is not fully determined by the material aspects of reality alone but is influenced by an input from the mind of the observer."⁴ In classical mechanics, the next state of every entity is determined by its interactions with other entities. Stapp claims that the observer's choice is not determined by matter. To say that the movement of an object cannot be completely explained by matter is to assert that

³ Stapp, *Mindful Universe*, 5.

⁴ Stapp, *Quantum Theory and Free Will*, 79.

something non-physical works on the movement of the object. Stapp holds that “contemporary physics is essentially psychophysical, hence dualistic,” although most philosophers view dualism as a *bête noire*.⁵ Although radical dualism is hardly accepted, Stapp contends that the “orthodox quantum ontology is in essential accord with the dualistic ideas of Descartes.”⁶ He conceives that Chalmers’s “hard problem” can be solved within the framework of quantum physics. Stapp asserts that “this hard problem is...a mystery insofar as one’s thinking is imprisoned within the fundamentally invalid conceptual framework postulated by classical physics,” because classical mechanics does not provide any place for consciousness.⁷ Dualism has been avoided or at least very carefully treated because it cannot be supported by science. Although Stapp is not a radical dualist, his thoughts about consciousness are more dualistic than those of Corrington. Stapp’s dualistic view can open up new conversations about consciousness with philosophy and religion.

5.2. Consciousness in terms of Subjectivity

Although the notion of consciousness is elusive, it is usually used to mean awareness. Just as John Searle points out that “a near synonym for consciousness...is

⁵ Stapp, *Mindful Universe*, 79.

⁶ Stapp, “Quantum Reality and Mind,” 19.

⁷ Stapp, *Mindful Universe*, 83.

awareness,”⁸ many scholars use the term consciousness as an equivalent to awareness. Although Corrington, Yu Young-mo, and Stapp do not define consciousness, their notion of consciousness is analogous to awareness. In other words, they understand consciousness as the ability of being aware of something. Corrington points out that human beings are different from other organism in that they can recognize that signs are signs. Human beings’ cognition of signs results from the ability of conscious awareness. Also, attending to the relationship between consciousness and the unconscious of nature, Corrington writes that “the selving process is ultimately rooted in an awareness of the seemingly fitful momenta of the fissuring of the natural difference.”⁹ The uniqueness of the selving process consists in the ability of awareness, which is deeply concerned with consciousness. Yu Young-mo employs the term thinking instead of consciousness and presupposes that thinking has its object. Compared with consciousness, the term thinking has the more intense directionality toward an object. Yu Young-mo suggests that we should think of ourselves. Without the ability of awareness, it is impossible to think of oneself. For Stapp, consciousness is bound up with free choice. The ability of free choice is based on human cognition through which an observer is aware of what he or she chooses. Free choice is different from random choice in that the subject of free choice determines the state of an object and recognizes what he or she chooses.

However, consciousness can be understood as subjectivity or subjective experience. Phenomenologists noticed that the fundamental structure of consciousness consists in the relationship between subject and object. That is to say, consciousness

⁸ Searle, *The Rediscovery of the Mind*, 84.

⁹ Corrington, *Nature’s Sublime*, 60.

involves one's subjective experience that takes place between subject and object. Nevertheless, phenomenologists did not refer to consciousness as subjectivity. It was not until Thomas Nagel published his paper *What is it like to be a bat* that consciousness was explained in terms of subjectivity.¹⁰ In his paper, Nagel claims that it is impossible to conjecture what it is like to be a bat because we cannot become a bat as the subject of experience. It is controversial that organisms such as a bat have consciousness, but it is widely accepted that every entity has its own subjectivity. Therefore, if consciousness is equated with subjectivity, every entity can be regarded as having consciousness.

Corrington, Yu Young-mo, and Stapp develop their thoughts on the premise that every entity has subjectivity. Corrington's ecstatic naturalism is based on a semiotic structure in which a sign has its object. In ecstatic naturalism, a sign can be thought of as a subject because the sign subjectively points to an object. Yu Young-mo claims that when we reach *bintanghande*, we can become a complete subject; the complete subject can recognize that every entity is a subject, not an object. To say that every entity is a subject is to claim that every entity has subjectivity. While Corrington and Yu Young-mo provide philosophical explanations about subjectivity, Stapp gives us scientific reasons why subjectivity must be accepted. Drawing on orthodox quantum physics, Stapp emphasizes free will in the issue of subjectivity. By negating objectivity, quantum physics leads us to take subjectivity seriously. Classical physicists have long believed that we can obtain objectivity in referring to objects. As Heisenberg points out, "in classical physics, science started from the belief...that we could describe the world or at

¹⁰ Revonsuo, *Consciousness*, 64.

least parts of the world without any reference to ourselves.”¹¹ However, quantum physics demonstrates that an observer creates one’s subjective experience by creating the property observed in the process of measurement, the simplest scientific activity with objects. According to quantum physics, a subject’s experience cannot be objectified by a third-person perspective. Stapp does not mention the experience of material or organisms other than human beings. However, quantum mechanics implies that every entity has its own subjectivity which cannot be objectively comprehended. To say that objectivity must be rejected is to claim that subjectivity must be accepted. In this sense, Heisenberg writes that “we have to remember that what we observe is not nature in itself but nature exposed to our method of questioning.”¹² By focusing on free will, Stapp takes a further step beyond the negation of objectivity. Subjectivity is associated with passivity because it signifies subjective experience that just occurs to a subject in relation to an object. On the other hand, free will is deeply concerned with active influence since it participates in the forming of an observed object. Drawing on the role of free will, Stapp “eliminates the seeming absurdity of a consciousness that exists but can make no difference in what happens.”¹³ He changes the role of human consciousness from a passive by-stander to an active participant.

Given that Corrington emphasizes the enhancement of subjectivity in relation to the human process, we can recognize that his notion of consciousness is grounded in subjectivity. Ecstatic naturalism copes with the enhancement of subjectivity in various

¹¹ Heisenberg, *Physics and Philosophy*, 29.

¹² Heisenberg, 32.

¹³ Stapp, *Quantum Theory and Free Will*, 79.

ways. First, Corrington views the history of nature and humanity as the process in which the human being or consciousness has gained subjectivity against the power of nature naturing. Ecstatic naturalism regards the power of consciousness as weak in comparison with that of nature naturing. Corrington asserts that “much of human evolution has been devoted to ways to lessen its imperial power over the weak powers of consciousness and individuation.”¹⁴ Also, he understands that consciousness has been personally and socially augmented by the process of semiosis. Corrington writes that “consciousness has been strengthened by personal and social forms of semiosis, wherein sign systems have become habituated and secure the nascent self against the depths from which the sign systems have struggled free.”¹⁵ Second, according to Corrington, human beings are not by-standers of evolution but participants in the process of evolution. From the semiotic perspective, random mutation in the process of evolution can be equated with the unfolding of novel semiosis. Human beings can consciously create new semiosis by making connections between signs and objects. Theoretically, evolution is accelerated when mutations increase. In this sense, the human being can accelerate the process of evolution by eagerly unfolding novel semiosis. Third, ecstatic naturalism claims that the spirit delivers the pulsation of the unconscious of nature to consciousness. Consciousness can accelerate the semiotic process between signs and objects by reacting to the spirit. In ecstatic naturalism, the selving process corresponds to the process of the enhancement of subjectivity. Fourth, by denying meta-teleology in a traditional sense, Corrington contends that we should reinforce our subjectivity. Meta-teleology means that there is an

¹⁴ Corrington, *Nature's Sublime*, 45.

¹⁵ Corrington, 21.

unchangeable telos which nature will finally achieve. If meta-teleology exists, we are supposed to be influenced by meta-teleology inasmuch as we are part of nature. Refuting meta-teleology, Corrington argues for developmental teleology, which means that human beings can have their own teleology for the sake of their own growth and development.

Yu Young-mo also contends that we should reinforce subjectivity, emphasizing that the enhancement of subjectivity is the main task of consciousness. He claims that we should obtain pure subjectivity by focusing on the inner self. According to him, concentration on the inner self is made possible by using consciousness. Yu Young-mo maintains that if we reach the state of enlightenment, we can attain perfect peace by stopping thinking of objects. For him, the ultimate goal of thinking is no thinking of objects, but the ultimate state of perfect peace is possible only with the enhancement of subjectivity, which results from ceaseless thinking. In his view, the augmentation of subjectivity corresponds to that of consciousness.

Unlike Corrington and Yu Young-mo, Stapp's thoughts have little to do with the enhancement of subjectivity. In Stapp's view, subjectivity is not only limitation but also ability because consciousness determines the property of the observed. However, he points out that subjectivity is indispensable to the quantum measurement process. He is not interested in what the human being should do, because scientists usually do not pay attention to ethical values or human responsibility.

In sum, Corrington, Yu Young-mo, and Stapp support the view that consciousness has to be understood in terms of subjectivity. Stapp's argument needs to be noticed not only because it is based on a scientific experiment which is regarded as objective but also because subjectivity has been rejected mainly by scientists. According to Stapp,

subjectivity is indispensable, and subjectivity is related to free will of consciousness. On the other hand, for Corrington and Yu Young-mo, consciousness as subjectivity is thought of as a premise. Given that both Corrington and Yu Young-mo stress the enhancement of subjectivity in human life, their major perspective on consciousness can be understood as subjectivity because subjectivity cannot be reinforced without the role of consciousness.

5.3. The Structure and Character of Every Entity

Corrington, Stapp, and Yu Young-mo claim or presuppose that every entity is necessarily related to other entities. This fundamental structure of every entity is the same as that of consciousness. According to phenomenology, the basic structure of consciousness is explained by the doctrine of Husserl's intentionality, according to which consciousness is consciousness of something. In dealing with consciousness, phenomenologists mainly deal with human consciousness because they presuppose that only human beings have consciousness. In the thoughts of Corrington, Stapp, and Yu Young-mo, the structure of consciousness can be compared with that of entities other than humans. The relation itself between entities can hardly be understood as consciousness, but the relation of an entity to another entity corresponds to that of consciousness to something out there.

Corrington's ecstatic naturalism asserts that every entity has a structure in which it is related to something out there. Drawing on a semiotic theory and ordinal phenomenology, ecstatic naturalism contends that every entity has the structure of sign

and object. Just as consciousness is consciousness of something, so a sign is the sign of an object. The relationship between sign and object corresponds to that between subject and object. If consciousness is understood as subjectivity, it can be accepted that a sign has consciousness. However, conversely, can we say that human beings are just signs pointing to objects? Ecstatic naturalism does not articulate the similarity between a sign and a human being, but Heidegger has already pointed out that human beings can be understood as pointers pointing to objects and withdrawing from them. Of course, consciousness plays a key role in pointing to objects.

Although Stapp deals only with human consciousness in the quantum measurement problem, he comes to the conclusion that every entity has the same nature as human consciousness. As mentioned above, there are two reasons why Stapp maintains that every entity is mind-like. First, mind can influence matter; not vice versa. Therefore, he claims that mind is more fundamental than matter. Second, the state of a quantum entity is easily changeable just as one changes one's mind; quantum entities are basic elements of every object. In this sense, every entity can be thought of as mind-like. Stapp's thoughts about human consciousness result from his reflection on the quantum measurement problem. He points out that consciousness works in the process of observation. Since observation is a basic way of making connections between entities, it occurs in every entity. If every entity is mind-like and observation takes place in every entity, it can be said that consciousness works in every observation.

Yu Young-mo also holds that the fundamental structure of every entity is its connections to other objects. As a matter of fact, he does not mention the relations of every entity to other entities, but he contends that only human beings can escape their

relations with other objects. To say that only humans can be independent of objects is to claim that all entities except humans cannot help having relations to other entities. According to Yu Young-mo, only a few human beings can achieve complete independence from objects by reaching *bintanghande*. In fact, this complete independence is not reality but the recognition of truth inasmuch as a human being has the body. Like Stapp, Yu Young-mo asserts that the essence of the world is mind-like rather than matter-like. He writes: “Whether the universe is treated well or not, there is something in it...All things are God’s belongings composed of God’s word.”¹⁶ In this sense, Yu Young-mo claims that matter is nothing.¹⁷ Since he believes that human consciousness has something in common with divinity, he contends that God exists where one thinks (念在神在).¹⁸ Also, he claims that when one meets with God, one can discover that the essence of nature is mind-like (窮神知化).¹⁹ According to Yu Young-mo, something similar to human consciousness subsists in everything and every entity is necessarily related to other entities.

¹⁶ Yu, *Daseok Yu Young-Mo Eolog*, 199.

¹⁷ Yu, 206.

¹⁸ Yu, *Daseok Gangui*, 99.

¹⁹ This principle is from I Ching, which is an ancient Chinese divination text.

5.4. The Significance of Observation

Given orthodox quantum mechanics, we have to take into consideration the relationship between consciousness and observation. Quantum physics tells us that observation is a simple but very important activity. The process of observation seems so simple that we are likely to think that observation has nothing or little to do with consciousness. On the contrary, we usually think that consciousness is such an extremely complex and highly developed activity that only human beings have it. It is believed that we feel, desire, remember, love, suffer, hate, and so on because we have consciousness. Compared with these complicated human activities, the act of observation seems to be very basic and elementary. Furthermore, because consciousness is generally understood as relating to awareness, observation can be regarded as irrelevant to consciousness in that observation can unconsciously occur. For example, when a baseball is thrown toward an athlete, he or she can catch it unconsciously. If the athlete caught the baseball, he or she must have seen it. In short, observation can be an unconscious activity. However, quantum physics points out that observation, even if it unconsciously happens, influences the ontic state of the observed.

From the perspective of orthodox quantum physics, it is true that observation creates the world observed. Quantum mechanics shows that when an observer attempts to observe a quantum object as a particle, the object is observed as a particle. On the contrary, when the observer wants to observe a quantum entity as a wave, the object is observed as a wave. Criticizing the complementarity principle of quantum physics, Einstein writes: "If I don't see the moon, the moon does not exist. I cannot believe it." At least, at the microscopic level, Einstein has to admit that observation creates the world

observed. Observation is just to measure where the observed is, but quantum physics points out that this simple act of observation changes the ontic state of the observed. Given that observation determines the concrete state of an object, observation has to be thought of as a very important process.

Furthermore, observation is related to consciousness in that it depends on free choice, an activity of consciousness. Stapp contributes to consciousness studies by focusing on free choice. In the quantum measurement process, an observer consciously determines which one between a particle and a wave property to observe. In the quantum measurement process, there is no unconscious choice because the observer chooses and recognizes one's own choice. Free choice is bound up with both consciousness and the observer's awareness. For Stapp, free choice is a bridge connecting between mind and matter. Because of free choice, something unpredictable can happen in the physical world. However, every unpredictable random movement cannot be regarded as relevant to consciousness. Stapp divides the process of quantum measurement into Process 1 and Process 2.²⁰ In Process 1, the state of a quantum entity is determined by the free choice of the observer. However, Process 2 represents that the position of the quantum entity is randomly determined. Consciousness is relevant only to Process 1. Stapp maintains that consciousness is related to free choice and that free choice leads to observation. If observation creates the world observed, we can say that consciousness creates the world intended. Observation is a stepping stone on which consciousness must tread in order to create the world intended.

²⁰ Stapp, *Quantum Theory and Free Will*, 10.

Drawing on Stapp's thoughts and ecstatic naturalism, we can claim that observation takes place by reflecting the radical dynamism of nature. Ecstatic naturalism asserts that free will derives from the transcendent dynamism of nature. Corrington writes that "Will is not just a human product or byproduct but the great force within nature itself."²¹ In ecstatic naturalism, free will plays a pivotal role in the selving process. Corrington writes that the selving process "entails a surplus value of free will that enables it to create and contrive aesthetic/ethical products of great scope and power."²² With regard to free will, Corrington's view is compatible with that of Schopenhauer. As Corrington points out, Schopenhauer contends that "the only freedom that emerges for the finite conscious mind is in the domain of art and genius, and, more deeply, in the radical denial of the Will."²³ Similarly, ecstatic naturalism points out that human beings have free will in some specific areas such as art. In Corrington's view, innumerable processes of ecstasy between signs and objects result from the character of nature naturing; human beings can consciously create their own novel semiosis against the imperial power of nature naturing. Free will derives from the Will and at the same time resists the Will. Free will includes free choice in quantum physics. The role of free choice in quantum physics corresponds to that of free will in ecstatic naturalism. Like free choice in the quantum measurement problem, free will in ecstatic naturalism cracks a closed world filled with mechanical processes. Given that free choice is related to

²¹ Corrington, *Deep Pantheism*, 31.

²² Corrington, 31.

²³ Corrington, *Nature's Sublime*, 70.

observation, we can say that observation is relevant to the fundamental dynamism of nature.

Lastly, it is possible that observation occurs on the premise of awareness. In the process of observation, awareness means that an observer is aware of the existence of the observed. It seems that matter does not have consciousness. However, if consciousness is something non-physical, matter may be aware of objects in a non-physical way. Also, assuming consciousness is subjective experience, whether an entity has consciousness cannot be perceived from a third-person perspective. If so, it is impossible to notice whether matter is aware of objects. We can conjecture some ways in which matter recognizes and observes objects. For example, the gravitational interactions can be a way in which an object recognizes and observes another object. The principle of gravity says that all things with mass are brought towards one another. As a matter of fact, gravity is a mysterious force in that we do not know why all things draw one another. Gravity may be the evidence that all things recognize and observe one another. In conclusion, we are likely to think that observation is a very simple activity, but it has to be taken very seriously.

5.5. Every Entity Has Consciousness

Given the possibility of the non-physical, the necessity of subjectivity, the fundamental structure of consciousness, and the significance of observation, I argue that every entity has consciousness beyond just subjective experience. This argument reflects various aspects of consciousness and opens up the possibility of a new understanding of

consciousness. To support the argument, I have explored the thoughts of Corrington, Yu Young-mo, and Stapp in these four points of view. This dissertation has showed that Corrington, Yu Young-mo, and Stapp have a consensus on these issues of consciousness. First, they admit the possibility that there is the non-physical. The problem of whether there is something non-physical is deeply concerned with dualism. Dualism has been regarded as a taboo because of the problem of the interaction between mind and matter. If we rule out the possibility of the non-physical, we are likely to restrict the issue of consciousness to the physical processes of a body—specifically, the brain. In doing so, difficult problems such as the “explanatory gap” and the “hard problem” occur. However, once we accept the possibility of the non-physical, on the one hand the issue of consciousness can be investigated in various ways and on the other hand matter with the simplest structure can have consciousness.

Second, Corrington, Yu Young-mo, and Stapp draw attention to consciousness as subjectivity rather than consciousness as awareness. Inasmuch as consciousness is thought of as corresponding to awareness, consciousness requires the complex activities of the brain. If so, an entity such as a quantum object cannot be regarded as having consciousness because it does not have complex physical elements like a brain. However, Corrington, Yu Young-mo, and Stapp put emphasis on subjectivity in investigating consciousness. Assuming that consciousness is subjectivity, we can say that even matter has consciousness. Also, subjectivity means that subjective experience cannot be comprehended by a third person; that is, awareness that we do not recognize can happen between subject and object. Furthermore, Corrington and Yu Young-mo notice that the enhancement of subjectivity is related to the role of consciousness.

Third, Corrington, Yu Young-mo, and Stapp believe that the fundamental structure of every entity corresponds to that of consciousness. If every entity has consciousness, we can suppose that it has the same structure as consciousness. Drawing on Husserl's doctrine of intentionality that consciousness is consciousness of something, this dissertation presupposes that the fundamental structure of consciousness is the relationship between consciousness and an object. Corrington's ecstatic naturalism shows that every entity has the structure of the relationship between sign and object. Also, Yu Young-mo and Stapp develop their thoughts on the premise that every entity is necessarily relevant to other entities.

Fourth, Stapp describes the significance of observation, which is related to the possibility that every entity has consciousness. Some entities—for example, quantum objects—seem to have nothing to do with conscious activities such as free choice and cognition. In quantum physics, the act of observation is taken seriously because observation plays a crucial role in determining the state of an entity at the microscopic level. Stapp explains that the role of consciousness in the quantum measurement problem can be extended to the macroscopic level. In this sense, observation, which seems very simple, has to be considered as important as free choice and cognition. The relationship between sign and object in ecstatic naturalism can be taken more seriously in terms of observation; concentration on the inner-self in Yu Young-mo's thoughts can be understood as an observation.

Along with the possibility that every entity has consciousness, this dissertation has showed the importance of quantum physics in dialogues among philosophy, theology, and science. Most philosophers do not take quantum physics into consideration. Quantum

physics is difficult to understand, and it seems to have little to do with our lives. Moreover, many scientific theories can be overridden by new discoveries or the development of new theories. However, philosophers usually take the theory of evolution as truth because they regard it as a description of the history of nature, not a scientific hypothesis. Corrington and Yu Young-mo also accept the theory of evolution and reflect it in their thoughts. The same principle is applicable to quantum physics because quantum physics can be thought of as a description of experience. It is a fact that the state of a quantum object is determined by the choice of the observer. Furthermore, although quantum mechanics is difficult to understand, it is widely accepted that quantum physics describes the world more accurately than classical mechanics. If philosophers take quantum physics seriously, they need to reconsider the theory of evolution because Darwin's theory is grounded in classical mechanics. Therefore, in the world of radical Darwinism, there is no place for mind; there is no place for human responsibility and ethics. In this sense, Schrödinger writes that "there is no place for ethics in the world of science." Theories based on classical mechanics conflict with our general ideas about the role of human beings in nature. Stapp points out that "quantum mechanics is more understandable than classical mechanics because it is more deeply in line with our common-sense ideas about our role in nature than the automaton notion promulgated by classical physics."²⁴ Under the influence of classical physics, science, philosophy, and theology can hardly cooperate with one another. On the contrary, quantum physics provides a place where science, philosophy, and theology have active communication. Investigating quantum physics in terms of theology, Catherine Keller writes: "Field of

²⁴ Stapp, *Mindful Universe*, 7.

fields, fold of fold: we may only offer back—in the very enigma and darkness of a boundless indeterminacy—a fresh unfolding. Within the ontology of the cloud there is no theism or atheism that excuses us from our becoming, together, now.”²⁵ She contends that “separation is a sham.”²⁶ Also, quantum physics can lead us to take consciousness as both subjectivity and the non-physical. When consciousness is understood in terms of subjectivity, philosophers and religion scholars can voice their opinions about consciousness studies. To claim that consciousness has to be objectively examined is to contend that consciousness depends on physical processes—specifically, the activities of a brain. When consciousness can be independent of physical process, we can talk about the active role of the human being. On the contrary, if consciousness hinges only on the physical, human subjective roles such as responsibility and ethics would be likely to be dismissed. That is to say, while classical physics tend to ignore human subjective roles, quantum physics provides room for the thoughts of philosophers and theologians.

Finally, this dissertation brings about the necessity of interdisciplinary studies among philosophy, theology, and science. In the twentieth century, by making the universe mindless, scientists made great progress in the physical and biological sciences.²⁷ However, it was mainly because of the mindless universe that philosophy, theology, and science have hardly cooperated with one another. Although philosophers have to cope with consciousness in relation to meaning and value, they have been

²⁵ Catherine Keller, *Cloud of the Impossible: Negative Theology and Planetary Entanglement* (New York: Columbia University Press, 2014), 166–67.

²⁶ Keller, 167.

²⁷ Nagel, *Mind & Cosmos*, 8.

reluctant to refer to consciousness because treating consciousness as something non-physical conflicts with science. Religions have been dismissed not only in consciousness studies but also in various academic studies because of the premise of dualism. Scientists have investigated the mindless universe from the point of mechanical view without interactions with philosophy and science. As a result, consciousness remains a mystery. Consciousness is so complex and elusive that it cannot be comprehended just in a specific discipline. For example, in consciousness studies, scientists have to deal with philosophy, just as philosophers need to have interest in science in order to find new facts. More specifically, this dissertation showed that Stapp's distinction between the mind-matter relationship and the matter-matter relationship falls short of philosophical understanding. He views the mind-matter relationship as the subject-object relationship and the matter-matter relationship as the object-object relationship. However, if observation is understood as subjective experience, the matter-matter relationship can be regarded as the subject-object relationship. Stapp implies that matter can have subjective experience because it is mind-like. He writes that "the basic message of quantum mechanics is that this underlying reality has...the same ontological character as the mental realities embedded within it."²⁸ However, he did not take a further step toward the philosophical understanding of consciousness as subjectivity. In order to comprehend consciousness and the human being, science, philosophy, and theology should cooperate with one another by accepting the possibility of a conscious universe.

²⁸ Stapp, *Quantum Theory and Free Will*, 73.

6. CONCLUSION

I conclude that every entity has consciousness. In my argument, I intentionally employ the term consciousness in order to imply that the consciousness of every entity is related to awareness. As investigated in this dissertation, consciousness is usually understood as awareness. Also, Corrington, Yu Young-mo, and Stapp accept that human consciousness is deeply concerned with awareness. Corrington asserts that human beings can notice by means of consciousness that signs are signs. Yu Young-mo claims that only human beings can know that every object is a subject. Stapp emphasizes that the result of free choice is recognized by the observer. Although the notion of consciousness is elusive, it is generally understood as awareness if it is not specifically defined. Given that consciousness corresponds to awareness, to say that every entity has consciousness is to imply that every entity has the ability of awareness. By arguing that every entity has consciousness, I am claiming that the ability of awareness is an essential property of every entity.

In relation to awareness, it is necessary to focus on the subjectivity of consciousness. From the perspective of subjectivity, we cannot exactly recognize how an entity is aware of other entities, because the experience of the entity is subjective. In other words, since subjective experience cannot be noticed from a third person perspective, we cannot exclude the possibility that every entity has the ability of awareness. As far as human consciousness is concerned, there are some aspects of consciousness that we can observe objectively. Many scientists conduct research on what

happens in the brain when the human being is conscious of something. However, when we talk about consciousness in the view of subjective experience, consciousness can be equated with qualia.¹ For example, suppose that a woman stands in a breeze. We do not know how she feels about the breeze. She can feel happy because the breeze is cool. Otherwise, she can feel uncomfortable if the breeze evokes her bad memories. We can hardly recognize her feeling by observing the activities of the brain. If consciousness is or includes subjective experience, we cannot recognize what an entity experiences by its consciousness. Because awareness is also subjective experience, it is possible that we do not know if and how an entity is aware of other entities.

Also, we need to delve into the notion of awareness so that we may consider the possibility that every entity has the ability of awareness. We are likely to think that only human beings or higher organisms have consciousness because awareness requires a complex organ such as a brain. Obviously, a brain is related to awareness, but it is possible that an entity is aware of something without a brain. A simple entity such as a quantum object can have its own way of being aware of other objects. For example, an entity can observe the position of another entity although it does not have a brain. The entity can find the position of another entity through gravitational interactions or electromagnetic force. This kind of measurement can be thought of as awareness. Similarly, many activities of the human being happen without the process of awareness in the brain. For instance, when we inadvertently touch something hot, we unconsciously take our hand off the thing. Unconscious perception, with which I have not dealt in this

¹ Revonsuo, *Consciousness*, 70–71.

dissertation, has been noticed in psychology since the late nineteenth century.² The relationship between unconscious perception and the brain is not sure, so scientists have been still studying the role of the brain in unconscious perception. However, it is true that unconscious perception happens without our attention to it. Also, given the subjective character of consciousness, we can think that there may be various ways of awareness with no regard to a brain.

I would like to simplify the conception of consciousness in relation to awareness. As mentioned above, awareness can be explained as the ability by virtue of which an entity knows the existence of other entities in any way. However, we tend to think that consciousness is very complicated because we usually deal with consciousness of consciousness in referring to consciousness. If consciousness is understood as awareness, consciousness of consciousness means awareness of awareness. It is called self-awareness, which is different from awareness. That is to say, consciousness is to be aware of something out there, while self-awareness is to be aware of that awareness. Suppose that we are seeing an airplane fly in the sky. If we define awareness as the ability of observing an object, the activity of seeing is awareness, and self-awareness is to be aware that we see the airplane fly in the sky. Like Corrington's ordinal phenomenology, self-awareness can be called ordinal awareness. The human being can increase the orders of awareness by repeating the activity of awareness. Yu Young-mo's way of disciplining oneself is to increase the orders of awareness by thinking of thinking. Similarly, we tend to understand consciousness as self-awareness rather than as awareness. For Corrington and Stapp, the notion of consciousness is also closer to self-

² Blackmore, *Consciousness*, 2011, 306.

awareness rather than awareness. Many scholars focus on the self-reflective character of consciousness, but I claim that the notion of consciousness can be more simplified if the ordinal structure of consciousness is excluded.

I understand that consciousness is a link which every entity basically has and that consciousness as a link works in every event in nature. We are likely to attend to the complexity of consciousness because human consciousness is a complex composite related to the various functions of a brain. However, I claim that the human being is like an elaborate Lego structure and that a simple entity is like a Lego brick with tiny projections, whose function is similar to the role of consciousness. Regardless of complexity, every entity has consciousness as a basic element. Also, consciousness can be explained in comparison with the theory of evolution. Before the theory of evolution was not announced, it had been thought that the emergence of the human being resulted from some mysterious event such as divine intervention, mainly because of the complexity of the human being. However, the theory of evolution succeeded in providing the principles of evolution, random mutation and natural selection. The principles of evolution are applied to every process of evolution from a single celled organism to the human being. Although human beings are very complicated organisms, it is widely accepted that they evolved by the same principles—random mutation and natural selection. Similarly, I claim that consciousness is an essential part of every entity so that it may make connections to other entities. No matter how simply an entity is, the entity has its relations to other entities by its consciousness.

For me, consciousness means the intentionality of an entity to relate itself to other entities. In other words, consciousness is the character of an entity, by virtue of which the

entity tries to point to other entities. I also claim that the intentionality of an entity is or relates to something non-physical. Consciousness can be regarded as physically unexplainable force or desire because we cannot notice by classical mechanics why an entity has the tendency to get connected to other entities. Furthermore, I believe that consciousness has a developmental teleology and that consciousness would have led to the development of sense organs. The nature of making connections between an entity and other objects can be related to physical part of the entity. We can point to other objects because we have sense organs. For example, when we see and recognize something, we use our eyes. We are likely to think that we recognize other objects because we have eyes. However, it is possible that consciousness originally existed and contrived eyes. I suggest that the consciousness of an entity could have developed new various ways to relate itself to other entities. In this sense, I maintain that consciousness is invisible force or desire which can be aware of other objects.

My argument is different from Stapp's although they look similar. I argue that every entity has consciousness, while Stapp claims that the universe is a mindful universe. I intentionally employ the term consciousness instead of mind or psyche. However, Stapp prefers mind or psyche by asserting that the universe is mind-like and psychophysical. He uses mind and psycho as the opposites of matter and physical. Stapp's argument represents that classical mechanics is not sufficient to explain the world. The phrase *a mindful universe* means that there is something unexplainable by classical mechanics. Since Stapp's thoughts are compatible with process thought, his notion of mind can include feelings, subjectivity, and freedom of decision. He may have wanted to imply the notions of feelings, subjectivity, and freedom of decision by

referring to mind. However, by using the term mind, he emphasizes that the universe necessarily involves something non-physical.

In contrast, I employ the term consciousness in order to imply that every entity has intentionality, awareness, and the ability of interaction. First, intentionality signifies that every entity tries to get connected to something out there. Intentionality of consciousness is active in comparison with the notion of mind. Therefore, I explain consciousness as force or desire in order to describe that consciousness makes it possible to get connected to other objects. Mind is like a receiving hand, while consciousness is like a grasping hand. Second, consciousness relates to the ability of awareness. Distinguishing awareness from self-awareness, I claim that every entity has the ability of awareness even though it does not have self-awareness. If awareness means the ability to observe the existence of other objects, awareness can be thought of as analogous to feelings. However, awareness signifies more active experience than feelings. An entity takes the initiative in being aware of something, while feelings just happen. I put emphasis on the active character of awareness by referring to consciousness rather than mind. Third, I think consciousness is a better word to describe interactions between an entity and other entities. According to quantum physics, observation leads to the ontic change of the observed in that the observer's decision creates the property observed. Consciousness goes well with observation because consciousness includes the intention of measuring an object. Mind can include the freedom of decision, but freedom does not necessarily influence other objects. In contrast, the term consciousness hints that a subject interacts with an object.

In fact, the term consciousness is a controversial one because the notion of consciousness is very complicated. Nonetheless, I argue that every entity has consciousness since I would like to imply that every entity has something intentional and active which creates and comprises the universe. If we attend to the complexity of human consciousness, it can be regarded as an exaggeration to claim that every entity has consciousness. However, if the subjectivity of consciousness is highlighted, it can be accepted that every entity has something which can be called consciousness. For example, since the experience of awareness is subjective, we cannot recognize if and how an entity is aware of other objects. Furthermore, I have already suggested that there can be many ways of awareness with no regard to a brain. Although consciousness is very similar to awareness, awareness cannot replace consciousness because consciousness involves the conception of connection between entities. In this way, consciousness includes the notions of intentionality and interaction. The term consciousness is a double-edged sword. On the one hand, consciousness is so complicated that we cannot understand it clearly. On the other hand, consciousness can include many implicit meanings by virtue of the complexity of its notion. For the latter reason, employing the term consciousness, I argue that every entity has consciousness.

I would like to point to the limitations of my argument. I have supported my argument by finding what the thoughts of Corrington, Yu Young-mo, and Stapp have in common. This dissertation attended to four issues of consciousness: the possibility of the non-physical, the necessity of subjectivity, the fundamental structure of consciousness, and the significance of observation. By virtue of these four conditions, the argument that every entity has consciousness cannot be beyond a statement of possibility. More

specifically, the first and second condition prevent the objective demonstration of the argument. Subjectivity presupposes that experience cannot be recognized from a third-person point of view. If we take consciousness as subjective experience, we cannot notice if a certain entity has consciousness. Also, assuming that consciousness is related to the non-physical, there is currently no way to prove the existence of consciousness because the non-physical can be neither measured nor observed. Although it seems that the existence of the non-physical and the necessity of subjectivity cannot be scientifically accepted, Stapp showed that quantum physics provides room for these two possibilities. Of course, Corrington and Yu Young-mo also support the view that consciousness has to be understood in terms of subjectivity and the non-physical. The statement that every entity has consciousness is a statement of possibility, but I believe that Corrington, Yu Young-mo, and Stapp raise its probability of truth.

Lastly, I contend that we need to draw more attention to the issue of consciousness. Consciousness studies is of great importance because it is the essential research on the human being. As a matter of fact, consciousness studies is as old as human history. Philosophers and religion scholars very carefully looked into consciousness by reflecting their experience. Their thoughts about what we should do and how we should live were deeply concerned with consciousness. However, as science came to the fore, the subjectivity of consciousness was dismissed, and scientists started to maintain that consciousness can be objectively explored. To claim that consciousness can be objectively investigated is to assert that the subjectivity of the human being can be ignored. Scientists presupposed that even if a human being does not talk about his or her experience, the experience can be objectively described. Quantum physics cracked

scientists' belief in the objectivity of consciousness. When an observer observes a quantum object, other people cannot recognize whether the quantum object is seen as a particle or as a wave. At least at the microscopic level, experience cannot obtain objectivity; some quantum physicists applied the subjectivity of experience to the macroscopic level. Science prevented consciousness studies from a wide perspective, but now it can lay the foundation for investigating consciousness with philosophy and theology. Also, without comprehending consciousness, we cannot reach a deep understanding of the human being. Hence, our intentionality needs to turn toward consciousness.

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