

Open Letter 1

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Translated using "Deep L translation-tools" and "Google Translate".

His Majesty The Emperor

March 27, 2021

The Emperor, beloved by all his people

I never thought that a situation would arise in which I would have to write to His Majesty the Emperor. I can say that it was "Almighty God" who gave me this courage. It is precisely because I believe I have the backing of "God Almighty" that I am able to send this letter. Without it, it would not have been possible. I am sure that others do not know why I think this way.

If someone recognizes what I have been putting my heart and soul into for about 30 years, will I be able to move on? Or, is it wrong because it started from the beginning as my own idea and misunderstanding? Like mathematics, it is not something that can be expressed in the form of proofs using axioms and theorems in a way that anyone can understand, so is it correct if someone else recognizes it? Since I can't keep this to myself, I have been sending the results of the process to many people to let them know as the situation progresses. I have continued to do so in the hope that I might get some good responses, that things might change, or that some new ideas might emerge.

I believe that the wish from "God Almighty" that was vaguely lumped together has been gradually reduced through me over the course of 30 years to a concrete problem that can be tackled in a way that others can easily tackle this issue. At this point, however, the problem has been broken down, reduced, and its existence known, but it has not been solved.

I think we can reply with a good reply to "God Almighty" by taking the process of dispersing individual problems to specialists to work on them, and finally working together to solve the original problem. In his book "Discourse on the Method" René Descartes says that difficulties should be divided.

The text that follows was written at the request of Almighty God, as if I were squeezing a rock to get the water out.

I have the honour to be, Your Majesty's humble and obedient servant,

Sincerely,

On the historical background of the beginning of the official use of the Emperor's title

Prior to this request, there were some things that we thought needed to be confirmed again, so we have listed them below.

As His Majesty already knows, we have summarized it briefly based on the information obtained from the website so that a third party can look at this text and get a bird's eye view of the whole picture.

The history of Japan is long, and it would take a long time to write it down from the age of mythology, so here I have written about ancient Japan from the time when the Japanese name for the sovereign came to be called "Emperor".

The world during the Asuka period (550~710) was, for Japan at that time, East Asia, and of course there were countries on the Korean peninsula, but the influence of China was particularly strong. Western societies were too far away to have direct contact with each other in this period.

Culture and technology were introduced to Japan from China, a central player in the international community of East Asia, through envoys during the Sui and Tang dynasties (600~894). This was probably done in order to prepare Japan for the international society of the time, and to establish the country's institutions so that it could become a member of East Asia.

Sui,Tang is an ancient Chinese name

Wakoku (old Japanese name) established diplomatic relations with China (Sui and Tang) as a means of national defense and was incorporated into the Chinese-centered international order, the tributary system. "The tributary system" was a foreign policy used by successive Chinese dynasties to maintain the international order among East Asian countries. Chinese emperors granted official titles and titles to the monarchs of neighboring countries that paid tribute to them, and allowed them to rule under a relationship of sovereignty and vassalage.

In the early 7th century, Japan began to gain prominence in the international community in Asia, which affected its relations with the Korean peninsula. Japan became capable of providing military support to Baekje, thereby improving its international standing in East Asia. This may have led to ambitions to break away from the Chinese system of tributary system and form an independent power that would span both Japan and the Korean peninsula. Japan had been out of this system since the 6th century.

Baekje is the name of a country on the ancient Korean peninsula

During the reigns of Emperor Tenmu and Empress Jito, Japan seems to have aimed to establish its own small empire, without receiving the tributary system from the Tang Dynasty. It is not contradictory to assume that it was during this period, when the rulers had a strong sense of national identity, that Japan's country name and the title of Emperor were established.

#Emperor Temmu was the 40th emperor of Japan.

Emperor Jito was the 41st female emperor of Japan.

Since the Korean peninsula was divided at that time, individual countries were smaller than Japan, and this may have had an impact on the sense of a great power in comparison with these countries. This may have led to the use of the title "emperor," creating a sense that there was a son of heaven (emperor) not only in China, but also within Japan. Emperor Temmu is considered to be the first person to officially use the title of emperor.

After envoy the Song dynasty (420~479) in 478, the king of Wakoku (old Japanese name) ended nearly a century of tribute to China. The 21st Emperor Yuryaku is compared to the last king of Japan, Waobu, and the inscription on the iron sword excavated from the Inariyama burial mound, which bears the name of Yuryaku, is said to show a leap from "king" to "great king" as a vassal of the Chinese emperor. The title "Waoubu" is a title bestowed by Song (420~479). In addition, the inscription on the iron sword excavated from the Etafuneyama burial mound shows the title "Chitenka Daio". Some believe that this indicates the King of Japan's intention to break away from the tributary system and establish his own state to rule over the whole country. "Chitenka Daio" is the title of the head of the Yamato kingdom from the Kofun to Asuka periods, or the title of the

sovereign of Japan.

Edafuneyama Tumulus is located at 302 Eda, Wasui-cho, Tamana-gun, Kumamoto Prefecture, Kyushu, Japan.

By the way, in ancient Chinese book called "The mythical legend of the three emperors and five emperors". This is honored as a cultural hero who brought civilization to mankind or as a propagator of civilization who transmitted heavenly culture to man. There are two theories that refer to the Three Emperors as "Emperor of Heaven, Emperor of the Earth, and Emperor of Man" and "Fukugi, Shinnoh, and Jyoka". The Qin Shi Huang Chronicle refers to the Emperor of Heaven, the Earth Emperor, and the Emperor of Thailand as the "Three Emperors," and the Chun Shu Latitude, which is drawn from the "Taiping Goran", also refers to the Emperor of Heaven, the Earth Emperor, and the Emperor of Man as the "Three Emperors. The title "Emperor" appears here.

"Emperor of Heaven" is written in Kanji characters as 天皇 , which is the same as "Emperor".

"The Chronicle of Qin Shi Huangdi" is the history of the first and greatest emperor in Chinese history, Qin Shi Huangdi. It describes the events from his ascension to the throne, to his unification of the country, to his proclaiming himself emperor, to his tour of the country, to his death on the plain of Shaqiu, and to the accession of the second emperor and the fall of the Qin Empire after his death.

Also, ancient Chinese knew that from the ground, the stars seemed to revolve around a certain point in the sky, which they called "Hokushin" (corresponding to the North Pole of the heavens) and considered to be the center of the universe. There is a theory that it was then deified and incorporated into the titles emperors used in Taoism and Japan. Emperor Komei's ceremonial robe, owned by the Imperial Household Agency, also has the Big Dipper placed on the upper center of the back. This is considered one of the most likely candidates for the origin of the title of Emperor in Japan.



large sleeves(cited from Wikipedia • <https://commons.wikimedia.org/wiki/File:Kone.jpg>)

The red ground is decorated with eight patterns of the twelve chapters of the imperial robes: the sun, the moon, the polestar, the mountains, the dragons, the Japanese pheasant, the tigers and monkeys, and the fire. Each pattern is represented by embroidery. At the time of Emperor Komyo's accession to the throne in the 4th year of Kenmu, it was embroidered on another silk and affixed to a large sleeve. The Big Dipper is placed on the upper back.

In any case, the title "Emperor" is derived from ancient Chinese creation myths. It is said that the emperor (pronunciation tenkoh) appeared at the time the earth was born and formed the foundation for human life by establishing the calendar, etc. The Chinese character "emperor" is a combination of the words "heavenly world" and "shining one". In other words, a heavenly messenger descended and thereby gave birth to the country of China.

There are many "kings" in the world today, but only "His Majesty The Emperor" is translated into English as "emperor." The title "emperor" was taken from the "Three Emperors and Five Emperors," and was established at the request of Qin Shi Huangdi, the first emperor of the Qin Dynasty, who unified China. Since the Five Emperors did not unify all of China, the title "emperor" has the meaning of "one who is beyond the emperor and close to God. Thus, the title "emperor" is a title with creation-mythological religious significance.

Around the sixth or seventh century, the unification of the country progressed in Japan, and a large government came into existence, ruling over a region spanning from Kyushu to the Kanto region. The head of this regime used the title "Daio" (Great King). At some point in time, this changed to the name "emperor. There are two theories that this was either Emperor Suiko's reign or Emperor Temmu's reign, with Emperor Temmu's theory now prevailing. Since "Emperor" is a higher rank than "King," the use of this title suggests that Japan at that time was conscious of its desire to elevate itself in the international community.

Since the ruler of Japan is said to be a descendant of Amaterasu, the title "emperor" would then fit perfectly. Since Amaterasu is a sun god, the character for "emperor" fits the meaning of "shining one.

Goddess of the Sun /Amaterasu Oomikami is said to be the most precious deity, symbolizing the sun, light, love, and truth, and is considered the ancestor of the imperial family. She has also been recognized as a "goddess" since ancient times.

Thus, although the origin of the name "emperor" cannot be definitively determined, it seems certain that it is a title derived from ancient Chinese creation myths in East Asia.

By the way, the three naturalists who came to Japan during the Edo period, including the famous Siebold, are called the "Three Scholars of Dejima" after Dejima Island in Nagasaki. One of the "Three Scholars of Dejima" is Engelbert Kempel, a German physician who came to Japan about 130 years before Siebold. Kempel stayed in Japan for two years from 1690 and wrote "Nihon-shi" (The History of Japan) upon his return to Japan.

In his "Nihon-shi,"Kempel writes,"Japan has two emperors: the emperor, who is a religious emperor, and the shogun, who is a secular emperor. Written around 1693, Kempel's "Nihon-shi" is considered to be the first Western document that refers to the emperor as "emperor."

According to the common sense of diplomacy in the world, the emperor is more prestigious than the prime minister, the president, or the king. Prime ministers and presidents are elected representatives of the people of their times, and kings are heirs to the royal family, but emperors include the culture and religion of the country, in other

words, they are "representatives of civilization. Although emperors in East Asia have already disappeared in their birthplace, China, Japan has historically been a part of that empire in the past. The Japanese title of emperor, which is derived from the ancient Chinese creation myth, is the only historical continuation of the creation myth in East Asia into the modern era.

I have a specific requirement that I would like to request from the Emperor

At present, His Majesty the Emperor has an important role in Shintoism and Buddhism. In addition to this, we would like the Emperor to become the founder of a new Christian organization in Japan, and to become the "ancestor of restoration." In other words, we would like you to consider expressing traditional Christianity in a slightly different way. And we would like you to be the founder of it. As you know, the number of Christians in Japan is very small. The percentage of Christians in Japan is less than 1% of the total population. There are many reasons for the low number of Christians in Japan, but the most important reason is that the Emperor of Japan does not have a role in society with regard to Christianity. In other words, Christianity is not a subject of sufficient recognition in Japan.

Shinto and Buddhism have a long history and track record of playing an important role in all matters concerning the country of Japan or the Japanese people.

According to the book and original title "Fra All Lande" written by Eduard Suenson (a Danish naval officer) and translated into Japanese in his book "Edo Bakumatsu Taizaiki"(A Stay at the End of Edo Period), it reads as follows."Shinto had been the state religion of Japan since olden times, but it spread quickly with the arrival of Buddhism in the mid-sixth century. The Mikado reigned as the supreme authority of these two religions. In Shinto, the Mikado is deified and worshipped as a god. In Buddhism, too, he is given the dignity of a deity."

Mikado is an old way of saying Emperor.

Thus, Shintoism and Buddhism are recognized in Japan in the presence of the Emperor, which gives them a social role in the religious sense. The people of Japan also recognize Shintoism and Buddhism as an integral part of the Japanese society.

Christianity, by the way, was introduced by the Jesuit Xavier in 1549, and missionary activities spread along with the trade with the Namban, and by the early 17th century, Christianity was propagated mainly in western Japan. Thereafter, the freedom of Christian faith in Japan was restricted for a long time by Toyotomi Hideyoshi's "Decree of deportation of Christian missionaries," Tokugawa Ieyasu's "ban on Christianity," and the "national isolation." Finally, in 1873, the ban was repealed, restoring freedom of Christian faith in Japan for the first time in 262 years since Ieyasu's 1612 "ban on Christianity in Edo shogunate territory."

"The "Nanban trade" refers to the trade that took place between Japan and Portugal/Spain in the late 16th century.

As you know, since the Meiji era (1868-1912), many achievements and contributions have already been made in the fields of science and culture, such as the introduction of Western military-related technologies and various machine-related technologies to Japan. I believe that these scientific, technological, and cultural contributions from the West were fostered in the Japanese way and paved the way for the Japanese to go abroad.

Looking around the world, Christianity is a recognized religion. The population ratio of Christians in the world is about 33% (according to a 2016 survey by Tokyo Christian University, Faith and Culture Center), and the numbers really show it. In Japan, it is less than 1% (according to a 2016 survey by Tokyo Christian University, Faith and Culture Center). As for whether Christianity is the right religion for Japan, it is difficult to be objective. Religions are entitled to freedom of religion and should not be forced by others. I believe the same is true for His Majesty the Emperor. There is no necessity to choose Christianity based on objective conditions. For this reason, I, as a citizen of Japan, would like to ask His Majesty the Emperor I would like Christianity to take root in Japan.

There are already a great number of Christian churches in Japan, including Catholic, Protestant, Eastern, and others. I do not want you to belong to one of the many organizations that already exist in Japan, but rather to be the founder of a new Christian organization created uniquely in Japan. In other words, we would like you to become the "restorer of Christianity" in Japan.

Galileo Galilei, the Italian "father of modern science," was a devout Catholic, but he left behind great achievements in the fields of astronomy and physics. He said, "Religion and science are not enemies, they are different languages that speak the same thing." (quoted from the movie "Angels and Demons") I believe that these two things can be treated on the same level.

What we want to insist on in this new denomination is to clearly communicate that science and religion (Christianity) are inseparable. Science and religion are one and indivisible, and we encourage you to judge them holistically in light of all these conditions. I believe this is the true value of Christianity, "taking everything at once." And this leads to the leap to the concept of "self-salvation": "Can I save myself? I do not know if this can be established as a religion, but it is my belief that this is a request from "God Almighty".

What is important for Japanese people today is not whether there really is an "Almighty God" or not. It is not whether "Almighty God" is worthy of belief or not. It is extremely important to recognize again the fact that there are already many people in the world who believe in the existence of "Almighty God," and that they have achieved a great number of concrete results by believing in Him. In this day and age, it is already nonsense to think about "God Almighty" as true or false. In order for Japan to become an officially recognized Christian nation, it is important for Japanese people to understand what "Almighty God" is, which is already believed by people all over the world. And I think it is necessary to be able to explain how we understand it to many people around the world.

What is the content of the new Christianity?

The new Christianity is simply expressed as "the way of self-salvation is to walk with the risen Jesus Christ."

Jesus Christ was born into the world as a being who did not and could not sin. However, He was judged to have sinned in that time period about 2,000 years ago. It was also considered a sin worthy of death. When you compare Jesus Christ's actions and words to their "old view of God" at the time, they had no choice but to do so. Jesus Christ is the Savior. It is safe to say that He was born into the real world to save His people. The "purpose" and "reason" for which "God Almighty" sent Jesus Christ to the earthly world

must be fulfilled. The presence and actions of Jesus Christ must ultimately resolve this contradiction through Jesus Christ Himself. I believe that it is because of this resolution that he has been adored as the Christian Messiah to this day. The contradiction here is that Jesus Christ, who never sinned, was killed because of sin. I will try to show that Jesus Christ was not killed because of his own sins, but on the contrary, because of the sins of the people of that time. Because of its brutality, the crucifixion was the heaviest penalty in the Roman Empire, which only rebels were subjected to and Roman citizens were exempted from.

Why were the words, deeds, and actions of Jesus Christ perceived as alien to real-world human beings? I am sure that the chief priests, scribes and leaders of the people understood the main point that Jesus Christ was advocating, but they were tasked with maintaining and stabilizing the country in its traditional way. I think it was difficult for them to argue with Jesus Christ and bring about change in the real world in a short period of time. In other words, for them, they were in a position where they could not be officially recognized without establishing the relationship between the gospel of Jesus Christ and the real world and confirming its demonstrability, etc.

It could be said that the chief priests, the teachers of the law, and the leaders of the people could not see or visualize what the real world should look like in the future. They could only understand and act in a direction that affirmed the maintenance of the real world system. The words, deeds, and actions of Jesus Christ could be said to have been too hasty in the usual sense, but they should have been handled with Jesus Christ as the central figure. They could not be carried out while taking time to check each one. He did not necessarily follow the flow of time in the real world, but he went on to preach the good news that he had to preach, albeit for a short time. People at that time could not respond adequately. Even after 2,000 years, people are still studying Jesus Christ.

Sin is a great gap between us and God. Two thousand years ago, even the Jewish people, one of the most superior peoples in the world, could not adequately respond to the "living Messiah/God in the real world.

But the very fact that Almighty God sent Jesus Christ into the world was to build a bridge, and He has closed the gap with "Almighty God. So now we are closer to "God Almighty. Through the "resurrected Jesus Christ," we have received the "holy portion.

Almighty God did not want Jesus Christ to spend His life as a good citizen. It was not enough for him to live a life without being backslidden. It was not about living a great life, making great inventions, making great discoveries, etc. The life of Jesus Christ was to demonstrate universal teachings.

Jesus Christ brought the good news entrusted to Him by "Almighty God," but at the end the masses asked Him "how to save Himself." The masses said, "Save yourself and come down from the cross." Answering this question was the last good news that Jesus Christ revealed before His death. He showed us "how to save ourselves" for the last time on the cross. He was caught, tried, sentenced to death, and crucified and killed, even though he had committed no crime. Jesus Christ was not assassinated, but was killed through a formal process.

This method may have been a compromise between the humans of the time and the Messiah. God sent the Messiah to the real world with all kinds of preparations in place, but he left the world, perhaps half-heartedly. However, He foretold Himself that He would go to the cross. The only way to know that this is the teaching of truth is for Jesus Christ Himself to demonstrate it in His own body. The masses think that words alone are not enough to believe. He really was killed that way. But when He was resurrected after His death, it can be understood that Almighty God showed that His actions were in accordance with His will.

After all, what did the people of that time want? I believe it was not to follow God's revealed plan, but to act as masters of the real world themselves. God sent the invisible God back into the real world as the "resurrected Jesus Christ," not God as the visible Substantial Person. I have read the New Testament and found this to be true.

I believe that Jesus Christ's death on the cross and His resurrection were for us to remember that our sins are forgiven and to reflect on our new way of life. For the Church, the death of Jesus Christ is not vain. The cross is no longer an abomination, a sign of failure or defeat. We believe this because we believe that God's love for humanity is shown in the cross. This may be difficult to understand with reason. But I believe this is the reason why Christianity holds up the cross so high.

What kind of person is the resurrected Jesus Christ? And how is he different from Jesus Christ who came as the Messiah in the flesh? This is what I think. Jesus Christ, who

came as the physical Messiah, was able to perform miracles. Numerous examples are found in the New Testament. There are various interpretations of the examples of miracles in the New Testament, but I have interpreted them to mean that He was indeed able to perform miraculous feats.

This is the first miracle of Jesus Christ from the New Testament, The Good News According to John, chapter 2, verses 1~11. Let us analyze this miracle.

Quoted from the Diglot New Testament, The Good News According to John 2:1~11

The Wedding at Cana

On the third day there was a wedding at Cana of Galilee, and the mother of Jesus was there. Jesus also was invited to the wedding with his disciples. When the wine ran out, the mother of Jesus said to him, "They have no wine." And Jesus said to her, "Woman, what does this have to do with me? My hour has not yet come." His mother said to the servants, "Do whatever he tells you." Now there were six stone water jars there for the Jewish rites of purification, each holding twenty or thirty gallons. Jesus said to the servants, "Fill the jars with water." And they filled them up to the brim. And he said to them, "Now draw some out and take it to the master of the feast." So they took it. When the master of the feast tasted the water now become wine, and did not know where it came from (though the servants who had drawn the water knew), the master of the feast called the bridegroom and said to him, "Everyone serves the good wine first, and when the people have drunk freely, then the poor wine. But you have kept the good wine until now!" This, the first of his signs, Jesus did in Cana in Galilee, and manifested his glory. And his disciples believed in him.

The incident described in the New Testament, in which Jesus Christ turned water into wine at his wedding, is the first recorded miracle he performed. Common sense would not easily believe this, as it totally disregards time and structure. This miracle is an act of transcending the structure of time and space with respect to matter. There are many interpretations of this incident. Some interpret it as a mere parable. I interpreted it as if there really was such an incident. It takes about 1~2 months from preparation to make even a new wine such as Beaujolais Nouveau, but Jesus used his ability to transcend aged fine wine and turned it from water into wine in an instant. If this could be done routinely, the normal wine-making techniques that existing people have developed up to

now would be meaningless. This must have been both gratifying and terrifying for the ordinary people who had no special skills.

For the people of that time, the element of time was the source of all human capabilities and possibilities in the real world. Even today, time is God's greatest gift to man in the real world. Time can solve anything. Grief can be healed with time, and biological evolution can be solved with time.

When trying to do creative work, some things need to continue from generation to generation in order to get things done, because life on earth is not eternal for humans. Life is the amount of time we can survive and be active in this world. Love, as preached by Jesus Christ, also involves action, or actual activity. Love is not only a thought.

Miracles are not empty requests, and if you ask God for a miracle, you will realize the horror of the fact that your wish will really come true and, by contrast, the helplessness of human beings. The New Testament is a book for self-knowledge of such things, for a renewed awareness of being human. So if the equivalent of a miracle were to be attempted by ordinary human beings, it would need to never end. It is important that time continue to flow for human existence forever in the earthly world so that human beings can create with human power from generation to generation. For man to become like God, endless time is necessary. If man were able to acquire God-like creative power, then the concept of time would cease to exist.

Jesus Christ was a human being who was truly called the Son of God, who was also able to give life to the dead. After the death of Jesus Christ, the process of ordinary human beings' steady efforts to walk into the future with the resurrected Jesus Christ, using the conventional "element of time," came to be called "evolution" or "science.

Messiah in the flesh was able to perform miracles. Miracles can be divided into time transcendence and spatial transcendence. The instantaneous creation of wine is time transcendence, and the transformation of water into grape juice is spatial transcendence. You could call it structural transcendence. With those two abilities, I made wine from water instantaneously.

Jesus Christ had the authority to manipulate time like a network. To be precise, what Jesus Christ brought with Him is what is called "time transcendence." Although this is

understood as a metaphorical expression, the ability to manipulate time can be thought of as an ability that accompanied the physical body of Jesus Christ. What is called time existed before Jesus Christ was born into the world. Expressed in physical form as the Messiah, Jesus Christ is "time transcendence," meaning the ability to manipulate time as a network against matter. Of all the feats performed by God described in the Old Testament, the foremost was the giving birth to Jesus Christ. It is described and expressed in the "Nicene Constantinople Creed" as follows.

Nicene Creed

We believe in one God, the Father, the Almighty,
maker of heaven and earth, of all that is seen and unseen.
We believe in one Lord, Jesus Christ, the only Son of God,
eternally begotten of the Father,
God from God, Light from Light, true God from true God,
begotten, not made, one in being with the Father.
Through Him all things were made.
For us men and our salvation He came down from heaven:
by the power of the Holy Spirit,
He was born of the Virgin Mary, and became man.
(continued below)

By this description, I have determined that time is the body of Jesus Christ. According to the New Testament account, Jesus Christ could also give life to the dead. He was truly a human being called the Son of God. He resurrected the dead back to relevance to time. In other words, he gave life.

In spite of the wonderful proposals from God, the people of that time chose to use the "conventional time" factor. Jesus Christ tried to pass on his miraculous skills to the world, but ultimately, by popular consent, he was crucified and killed.

However, God resurrected Jesus Christ as a testimony of His absolute love for mankind. As a result, after the death of Jesus Christ, human beings in the real world will walk slowly toward the future with the resurrected Jesus Christ. The resurrected Jesus Christ cannot be seen with the eyes. We may have to use our sixth sense to know. As a result, man has chosen the destiny to flourish by walking with the Risen Jesus Christ.

The "time transcendence," or "time administrator," has been sealed.

The other "spatial transcendence" or "spatial administrator" has become the good news of man, obtained by walking with the risen Jesus Christ. The risen Jesus Christ has jurisdiction over spatial transcendence and is its administrator.

Born in the real world, Jesus Christ possessed the authority of time and spatial transcendence. That is why he was able to perform miracles as described in the Bible. However, according to the information available in the New Testament, the body of Jesus Christ was lost without descendants, so the time transcendence was sealed off, making it inaccessible to man from the real world. By the grace of God's absolute love for man, Jesus Christ was resurrected, and spatial transcendence was disclosed to man through the resurrected Jesus Christ as spatial or structural principality.

Through this process, man has been able to benefit from spatial administrator by using the conventional "item of time" and by walking with the resurrected Jesus Christ. We can use two elements: normal time and the right to control space. And we have obtained methods called evolution, science, etc., which we use to this day.

By the way, what is the Nicene Creed? From the beginning of its history, the Church faced many problems. The main one was concerning Jesus Christ. For this reason, the Church has held councils to more precisely articulate its beliefs. Thus, the creeds decided by the First Council of Nicaea in 325 and the Council of Constantinople in 381 were combined into one creed, also called the "profession of faith". This creed has long been recited as the profession of faith at Mass.

Jesus Christ was the embodiment of time and spatial transcendence. Since Jesus Christ died on the cross, temporal and spatial transcendence were lost. But since Jesus Christ was resurrected, only spatial transcendence became the good news of man and was inscribed in human history. In the death on the cross scene described in the New Testament, we read that "the tent was rent." I believe this is an expression that implies that spatial administrator have been opened for human beings. We can benefit from spatial administrator by walking with the risen Jesus Christ.

The spatial administrator is basically the authority over the structure of things. It refers to the authority to handle everything from the microscopic quantum world to the

macroscopic structure of the universe. It is also relevant to the development of aircraft and rockets because it deals with three-dimensional space. The spatial and structural administrator, the blessing of the resurrected Jesus Christ, has been given to human beings, and so scientific and technological developments have been given to human beings in a wide range of fields, including the field of gene structure and brain science. However, these are not blessings that are given unilaterally, since they are rewarded if we work hard. This is described in the New Testament in Matthew 7:7~14.

Diglot Bible Matthew 7:7~14

Ask, and It Will Be Given

“Ask, and it will be given to you; seek, and you will find; knock, and it will be opened to you. For everyone who asks receives, and the one who seeks finds, and to the one who knocks it will be opened. Or Which one of you, if his son asks him for bread, will give him a stone? Or if he asks for a fish, will give him a serpent? If you, then, who are evil, know how to give good gifts to your children, how much more will your Father who is in heaven give good things to those who ask him!

“So whatever you wish that others would do to you, do also to them, for this is the Law and the Prophets.

“Enter by the narrow gate. For the gate is wide and the way is easy that leads to destruction, and those who enter by it are many. For the gate is narrow and the way is hard that leads to life, and those who find it are few.

Is the last teaching of Jesus Christ helpful?

Now, as to whether or not there are any special advantages to embracing Christianity in earnest, I would naturally assume that there are. As an example, I will discuss the application of artificial intelligence technology to reconstruct and shape the forms that nature has shaped in a way that makes them accessible to humans. The explanation is given in detail on the attached Blu-ray disc. I used to work as a dental technologist. If you are interested, please take a look.

The contents of the Blu-ray disc can be viewed in the video in the "Dental Care Stories" section.

Let me briefly explain the contents of the Blu-ray disc. CAD stands for "computer aided design," and the content is about how to use CAD to create and edit the shape of teeth. In this process of how to create the tooth shape, there arises a need to interact with spatial transcendence (spatial administrator) or structural transcendence (structural administrator).

As you can see by moving your own lower jaw, there is a connection between the movement of the lower jaw and the shape of the upper and lower teeth. The upper and lower dentition is designed so that the upper and lower teeth do not inadvertently collide with each other, making it easier to bite when eating and easier to pronounce when speaking. I think they are very well made. We don't know how nature intended to create the shape of the teeth, but judging by human consciousness and reason, we can think in this way about the creation of natural things. That is why we apply artificial intelligence. Artificial intelligence is a substitute for human consciousness and reason.

As you know, today, computer-based artificial intelligence technology has already been commercialized in many fields, such as image recognition and synthetic voice, and anyone can use it. Artificial intelligence is also being applied to automatic driving technology for automobiles, and is actually being put to practical use.

My goal in this project is to generate the shape of the upper and lower jaw teeth in the form of CAD data by applying artificial intelligence technology. Natural teeth are created by nature. We can only imagine how and why nature intended to create such a shape, but as far as human consciousness and reason can determine, it was created so that multiple functions such as grinding food and pronouncing words can coexist well. In other words, when a human being reproduces the shape of a tooth to meet human needs, it is only acceptable if this element that can be understood by consciousness and reason is incorporated into the shape of the tooth that is produced. Doing so can be considered reasonable and consistent with the purpose and reason that nature has created.

It is said that when considering the function of the brain, two aspects are considered necessary, one is the physical description presented by neuroscience and the other is the psychological description studied by psychology, which is commended by our subjective experience. Consciousness and reason are functions of the mind, which is different from the physical mechanism of the brain itself. I think it is done by interaction from the

physical bottom up and from the psychological top down.

In order to perform information processing, the brain explores natural formations to accumulate data. This can be described as the accumulation of shape characteristics through the filter of human consciousness and reason. Specifically, it means using artificial intelligence techniques to explore, analyze, and reconstruct the three-dimensional shape of teeth.

The reason why this is possible is because of "spatial administrator". This term is a word that I created and you will not find it anywhere if you search and look it up. It gives legitimacy to the fact that no matter what intention nature was formed with, it can be judged by human consciousness and reason. As we have already explained, "spatial administrator" is the authority of Jesus Christ, who opened the door for human beings to know about space and the structure of things. Thus, by asserting "spatial administrator," we believe that even a natural object of unknown intent can be given legitimacy as an act of a human being who walks with Jesus Christ.

There is another term, "time transcendence" or "time administrator," which is not yet a disclosed authority to humans, but is sealed.

The source of this term "time administrator" and "spatial administrator," as I have named it, has to do with the last teachings of Jesus Christ during his lifetime in the Bible. As you know, Jesus Christ was killed on the cross and God resurrected him. His physical body was lost, but He was resurrected into the world as a spiritual, invisible being. This was done because of God's love for mankind, which I have named "spatial administrator" for the moment. You might call it "spatial transcendence."

As for "time administrator" it is not an authority given to humans today, since Jesus Christ was killed and ceased to exist as a physical being in the world. Therefore, with regard to time, it is possible to deal with "causal time" as before, and it is not a special authority. However, I believe that the time will come when we will pay attention to this unknown "time administrator" or "time transcendence" authority. In the quantum world, conventional laws regarding time do not seem to apply.

I have presented my idea, but I think there is a need to consult an expert with authority. Almighty God has not allowed me to fall short and has guided me to the point of writing

to His Majesty the Emperor. My role is to be the first to put aside whomsoever and make a request to His Majesty the Emperor, and this is a request that was directly bestowed upon me by Almighty God. The content may not be sufficient, but I believe it is the best I can do at this point in time. I am writing to you on behalf of God Almighty's request. Whether this is to be believed or judged as trivial nonsense is a matter for His Majesty the Emperor himself.

Time and Space

How did humans first acquire the concept of time in a time when there were no clocks? I think it was because they felt that the repetition of light periods of day and dark periods of night had some meaning, and that the accumulation of cyclic phenomena represented the passage of time. I think it could also be the repetition of the seasons. I think there is an important relationship between human existence and time. This is probably because humans have a life span. I think that the reason God created day and night was not to let humans know that time exists. An important science for people in the past was to create a calendar.

Space can be represented by the information of three-dimensional location. Space also provides a reference for the movement of matter. When space is expressed in terms of coordinates, there is no limit to the natural numbers, so an infinite area can be set up. However, to indicate a concrete location that humans need, a distance is necessary, and therefore, a concrete time is generated. In the real world, human involvement results in the occurrence of concrete time, which is consequently finite.

What is important to humans is not distance or time in isolation, but rather something that has a unit of velocity. Velocity has two components, time and position in space, which have meaning, or value, when integrated.

To indicate distance in the vastness of space, we use the unit of light-years, using the speed of light, which is an invariant speed in a vacuum (principle of light speed invariance, $\approx 300,000$ kilometers per second). It is the fastest that humans can relate to.

Also, distance on the earth, for example 10 km, has no unit of time, but traveling at 10 km/h generates a finite amount of time, one hour. When humans need a concrete length (distance), there is a need for the concept of time.

Time is something given to man by God Almighty to exist as an entity in the real world. When time is not considered, objects in the real world, like clouds in the sky, distant mountain ranges and cityscapes, become "meaningless landscapes," two-dimensional entities with little perspective. Time is a blessing and life given by "God Almighty" for human beings to operate in the real world.

Time, discovered in physical phenomena, is the driving force that makes humans do things. It gives man the awareness that he can operate himself. Time is expressed as the repeating phenomena of the real world, such as the repetition of day and night, the cyclic phases of the moon, the repetition of the four seasons, the shifting of shadows by the sundial, the movement of the stars and constellations in the night sky, and the beating of the heart. These are like the pulsations of life, which can be recognized through a series of regular changes. The concept of time occurs when it is of value to humans and when we want to be involved. There is a limit to speed, and based on the principle of the invariance of the speed of light, approximately 300,000 kilometers per second is considered the greatest value in the real world, establishing a relationship between distance and time. When an object is in relation to time, it emerges as a three-dimensional entity. The Big Bang cosmology, published in 1965, posits that time began 13.8 billion years ago. The role of time is to determine "when," which generates concrete distance and becomes a three-dimensional entity.

First there is the speed at which one can move, then the element time, distance or position occurs. In the past, people were based on the length of their hands, elbows, palms, and other body functions and the size of their body parts.

By the way, Sir Isaac Newton is considered the father of modern science. Newton held that space is absolute and unchanging, and that space is like an empty stage. He also believed that the motion of matter and space do not affect each other. In his work, "Principia," he published the idea of universal gravitation. He used the concepts of absolute time and absolute space to express phenomena in mathematical formulas.

As time passed and the 20th century came along, Albert Einstein made a proposal that radically changed the perception of physics up to that time and was regarded by some as the greatest physicist of his time. I believe that the concept of space-time was based on the properties of light. The relationship between space-time and the speed of light was

considered from the fact that the speed of light in a vacuum is constant, and that space-time is flexible and that time and space are not independent entities but a unity. He also elucidated various phenomena, such as the mechanism of gravity and the relationship between light and space-time, which Newton had not been able to elucidate.

In the modern era, quantum theory and quantum mechanics have emerged. Unlike the cases of Newton and Einstein, we are talking about the hyperfine realm. Until the 19th century, it was believed that the position and momentum of an object at a given time and Newton's equations of motion were sufficient to determine its subsequent motion. However, due to the fact that the position and momentum of an electron in the microscopic domain cannot be determined simultaneously, Newton's equations cannot be used, and special quantum mechanical equations must be used. The properties of the microscopic realm are manifested in the fundamental observer question of what is measurement in the quantum world and in the mysterious remote action between two distant particles in a state called "quantum entanglement". In space-time relations, the quantum world is the source of many contemporary questions and paradoxes.

Such a study, the so-called "Why the modern science had prospered only in Western Europe?" question, may be discussed. I think the answer is that it is because they have been close to Jesus Christ. I think it is because they have realized and implemented the fact that Jesus Christ is the principal agent of "spatial administrator" for quite some time.

Spatial administrator with respect to space or structure is transcendence with respect to space or the structure of things. Even though man killed Jesus Christ by crucifixion, God Almighty resurrected Him, so that He became accessible, from the real world, as the authority of the resurrected Jesus Christ.

Time administrator is transcendence with respect to time. Since man has killed Jesus Christ on the cross, time administrator has been sealed because God has lost his material basis of existence in the real world.

Adapted from References for Reinforcement

The following text is taken from the following book.

References

#kyobunkwan "When science meets religion" Ian G, Barbour
translation Kiyohisa Fujii

#Igaku-Shoin "Neuroscience Psychology and Religion"
Malcolm Jeeves & Warren S. Brown translation Yoshihiko Sugioka

The following is an edited version of some excerpts from the referenced literature that we found interesting.

Ian Graeme Barbour, American physicist and theologian, author of "When science meets religion," to which I refer in this article, makes the following statement in this book.

"If God is omnipresent (including presence everywhere at the microlevel), no energy is required for the communication of information. Moreover, the realization of particular outcomes among the alternative potentialities already present in the quantum world conveys information without any physical input or expenditure of energy."

This is my opinion, but I think it expresses that God watches over the real world through spatial administrator.

God's power is also expressed in the way of time. Time solves things. Even the most difficult things can be thought of as being accomplished over hundreds of millions of years. Time is one of the tools God has presented to man to enable him to understand the relationship between matter and events, including the synchrony of things.

Science and Religion

When talking about religion in science, the most noteworthy thing would be miracles. I believe that miracles fall into the category of religion. As I showed in the previous

chapter, the miraculous feats of Jesus Christ described in the New Testament are completely impossible in everyday life. You would think that miracles are unscientific and insane, that they are a metaphor for something, a phrase describing something else. The average Japanese who does not believe in Christ would never think that it is a description of the truth.

The Western Europeans, however, went headlong into what the Bible described. As a result, they became so remarkable and famous that they are often studied as "Why the modern science had prospered only in Western Europe?"

I have been thinking along those lines and trying to figure out how in the world we can create science like the Westerners do. It would be a matter of the brain. It would not simply be a matter of being smart or not smart enough, but would have to be conceived of as a brain that accepts Jesus Christ. I have included some quotes from the literature I referred to below.

When we scientifically consider the function of the human brain in the real world, how should we think about the relationship between the spirit or soul, which is dealt with in religion, and the brain, which is the physical body?

Malcolm Jeeves & Warren S. Brown, authors of *Neuroscience Psychology and Religion*, remark in their book. It is inevitable that the forms which are taken by feeling, thinking, and action within any religion should be molded and directed by the character of its own associated culture. The psychologist must accept these forms and attempt to show how they have grown up and what are their principal effects. Should he appear to succeed in doing these things, he is tempted to suppose that this confers upon him some special right to pronounce upon the further and deeper issues of ultimate truth and value. These issues, as many people have claimed, seem to be inevitably bound up with the assertion that in some way the truth and the worth of religion come from a contact of the natural order with some other order or world, not itself directly accessible to the common human senses.

Ian Graeme Barbour, American physicist and theologian, author of "When science meets religion," to which I refer in this article, makes the following statement in this book. There can be no conflict between scientific and religious assertions about human nature if they are independent and unrelated to each other. In the classical body/soul

dualism, the soul is said to be immaterial and inherently inaccessible to scientific investigation. Another version of the Independence thesis is found among recent authors who hold that body and soul are terms in two distinct forms of discourse that serve contrasting functions and provide complementary perspectives on human life. This is not the original Christian view found in the Bible.

The body/soul dualism found in later Christianity is not found in the Bible itself. In the Hebrew scriptures, the self is a unified activity of thinking, feeling, willing, and acting. H. Wheeler Robinson writes, “The idea of human nature implies a unity, not a dualism.

H. Wheeler Robinson, an English Old Testament scholar write, “The idea of human nature implies a unity, not a dualism. There is no contrast between the body and the soul such as the terms instinctively suggest to us.”

Lutheran Swiss New Testament scholar Oscar Cullmann agrees, noting that “the Jewish and Christian interpretation of creation excludes the whole Greek dualism of body and soul.” In particular, the body is not the source of evil or something to be disowned, escaped, or denied—though it may be misused. We find instead an affirmation of the body and a positive acceptance of the material order.

Sri Lankan theologian and Methodist pastor Lynn de Silva writes: Biblical scholarship has established quite conclusively that there is no dichotomous concept of man in the Bible, such as is found in Greek and Hindu thought. The biblical view of man is holistic, not dualistic. The notion of the soul as an immortal entity which enters the body at birth and leaves it at death is quite foreign to the biblical view of man. The biblical view is that man is a unity; he is a unity of soul, body, flesh, mind, etc., all together constituting the whole man.

According to the Interpreter’s Dictionary of the Bible, the Hebrew word *nephesh* (usually translated as soul or self) “never means the immortal soul, but is essentially the life principle, or the self as the subject of appetites and emotion and occasionally of volition.” The corresponding word in the New Testament is *psyche*, “which continues the old Greek usage by which it means life.” When belief in a future life did develop in the New Testament period, it was expressed in terms of the resurrection of the total person by God’s act, not the inherent immortality of the soul.

Lutheran Swiss New Testament scholar Oscar Kullmann shows that the future life was seen as a gift from God “in the last days,” not an innate human attribute.

Paul speaks of the dead as sleeping until the day of judgment, when they will be restored—not as physical bodies or as disembodied souls, but in what he calls “the spiritual body” (1 Cor. 15:44). Such views of the future life may be problematic, but they do testify to the belief that the whole being of persons is the object of God’s saving purpose. This sense of life can be considered a testimony to the belief that the whole of human existence is the object of God's redemptive purpose. However, a dualistic view developed in the early church, largely because of the influence of Greek thought. Plato had held that a pre-existent immortal soul enters a human body and survives after the death of the body. The Gnostic and Manichaean movements in the late Hellenistic world maintained that matter is evil and that death liberates the soul from its imprisonment in the body. The church fathers rejected Gnosticism but accepted the dualism of soul and body in Neoplatonism and to a lesser extent the moral dualism of good and evil associated with it. Other forces in the declining Greco-Roman culture aided the growth of asceticism, monasticism, rejection of the world, and the search for individual salvation. Some of these negative attitudes toward the body are seen in Augustine’s writing, but they represent a departure from the biblical affirmation of the goodness of the material world as God’s creation.

In the thirteenth century, Thomas Aquinas accepted the Aristotelian view that the soul is the form of the body, which implied a more positive appraisal of the body. He said that the soul was created by God a few weeks after conception, rather than existing before the body. Animals were held to have “sensitive souls,” but only humans were said to have “rational souls.” Aquinas gave a complex analysis of human nature and moral action that included an important role for emotions (“passions”) in carrying out the good, which is known by reason as well as revelation. Medieval theologians expressed a sense of the organic unity of a world designed according to God’s purposes. Nevertheless, the concept of an immortal soul established an absolute line between humans and other creatures and encouraged an anthropocentric (human-centered) view of our status in the world, even though the overall cosmic scheme was theocentric (God-centered). However, in the overall cosmic level of organization, it was God-centered. Almost without exception, the non-human world was portrayed as playing only a subsidiary role in the human salvation drama of the Middle Ages and the Reformation.

Descartes' dualism of mind and matter departed even further from the biblical view. The concept of soul had at least allowed a role for the emotions, as the biblical view had done. But mind in the Cartesian understanding was nonspatial, nonmaterial "thinking substance," characterized by reason rather than emotion. Matter, on the other hand, was said to be spatial and controlled by physical forces alone. It was difficult to imagine how two such dissimilar substances could possibly interact. It was difficult to imagine how two such dissimilar substances could possibly interact. Descartes claimed that animals lack rationality and are machines without intelligence, feelings, or awareness.

Many theologians have continued to defend a dualism of body and soul. The official Catholic position is that the human body evolved from the body of primates and proto-human hominids, but the human soul was introduced into a body ready to receive it at a particular point in evolutionary history. In a statement in 1996, John Paul II said that evolution is "more than a hypothesis" since it has been supported by many independent lines of research; he also reaffirmed that throughout human history each soul has been "immediately created by God."

Other commentators insist that the soul is immaterial and therefore cannot be discovered by the scientific investigation of either ancient fossils or the brains of present-day humans. They maintain that theological statements about the soul are not derived from scientific research and are quite independent of all scientific theories.

Religion is a very old part of human culture. Sociobiologist Edward O. Wilson says that religious practice may have been a useful survival mechanism in early human history. He believes that religious practice was a useful survival mechanism in early human history because such practice can be thought of as having contributed to group cohesion. He remarks, however, that when religion is explained as a product of human evolution, its power will disappear forever and it will be replaced by the philosophy of scientific materialism.

However, Ian Graeme Barbour, American physicist and theologian, author of "When Science Meets Religion," responds to this as follows. If Wilson is consistent, I must say to him that the power of science, when explained as a product of evolution, will likewise gradually decline. Because, he remarks, it is divinely determined that evolutionary forces alone will eventually come to an end. Theologian Philip Hefner says that we humans can be considered co-creators, created in God's ongoing process of creation.

Evolution is both God's purpose and means of creating free creatures and thereby opening the way for further creative possibilities. We humans are at the same time creatures of nature and culture, constrained by our genes and past history.

The two Selves and image of self-reference

Ian Graeme Barbour, American physicist and theologian, author of "When science meets religion," to which I refer in this article, makes the following statement in this book. Let me explain about the social self. In the biblical tradition, we humans are inherently social beings. God's covenant was not with individuals from generation to generation, but with peoples. The Old Testament "psalms" and some of the later prophetic writings focus on the individual. For example, the Old Testament book of Jeremiah speaks of a new covenant written on the heart of each person. The individual, however, is always seen as a person within a community. Judaism has emphasized and maintained this for the community, while Protestant Christianity has tended to look at it in an individualistic way.

In the biblical tradition, we are inherently social beings. God's covenant was with a people, not with a succession of individuals. Some of the psalms and writings of the later prophets focus on the individual, but individuals are always seen as persons-in-community. Judaism has preserved this emphasis on the community, whereas Protestant Christianity has tended to be more individualistic. In the Bible, we are not self-contained individuals; we are constituted by our relationships. We are who we are as children, husbands and wives, parents, citizens, and members of a covenant people. God is concerned about the character of the life of the community as well as the motives and actions of each individual. The religious community shares a common set of sacred stories and rituals. Even the prayer and meditation of individuals take place within a framework of shared historical memories and assumptions. The theme of the social self is prominent among contemporary theologians.

American Christian theologian H. Richard Niebuhr defends the fundamentally social character of selfhood. "Every aspect of every self's existence is conditioned by membership in the interpersonal group."

George Herbert Mead, American social psychologist, philosopher, and historian of ideas, said that it is only in dialogue with the individual within the community of subjects that

we come into existence as individuals. We are not impartial bystanders, but members of an interpretive community. The social context reveals the existence of the individual only in the thought of the speaking self.

Notre Dame professor and philosopher Alisdair McIntyre and others maintain that our personal identities are established by the stories we tell, the narratives of which we are each the subject. These stories always involve other people. Advocates of "narrative theology" insist that our personal stories are set in the context of the stories of a community. They hold that religious beliefs are transmitted not primarily through abstract theological doctrines but through the stories that provide the wider framework for our own life stories.

Ian Graeme Barbour, American physicist and theologian, author of "When science meets religion," to which I refer in this article, makes the following statement in this book. The doctrine of the Incarnation asserts the importance of the full incarnation of Jesus Christ, the Son of God, and the importance of possessing a human body. The doctrine asserts the unique relationship of the Father and Son of Jesus Christ to God and the complete identity of the will of God and the will of Jesus Christ. Therefore, the human potential to reflect God's purposes in the world, as well as the absence of original sin and the Incarnation, can be understood as essential characteristics of the personhood of Jesus Christ.

It can be expressed in the correlative relationship of self and ego. The self is God Almighty, and the ego is Jesus Christ. Here, it can be understood as a comprehensive view of the human being, as a synthesis of body and mind in correlation with each other. I believe that this view of man is consistent with both the biblical view of man and the evidence from modern science.

It is my belief that God lived in the hearts of men before the coming of Jesus Christ. Jesus Christ, as a human being, had a dialogue with this God and made a "new covenant" with Him. You could say that he represented mankind. Jesus Christ had the human potential to reflect God's purposes to the world. Because he had no original sin, and being incarnated as a human being was an essential characteristic of the personhood of Jesus Christ as a human being. This "new covenant" took place inside the heart of Jesus Christ. What this means is that the divine self and the human ego entered into a dialogue and entered into a "new covenant."

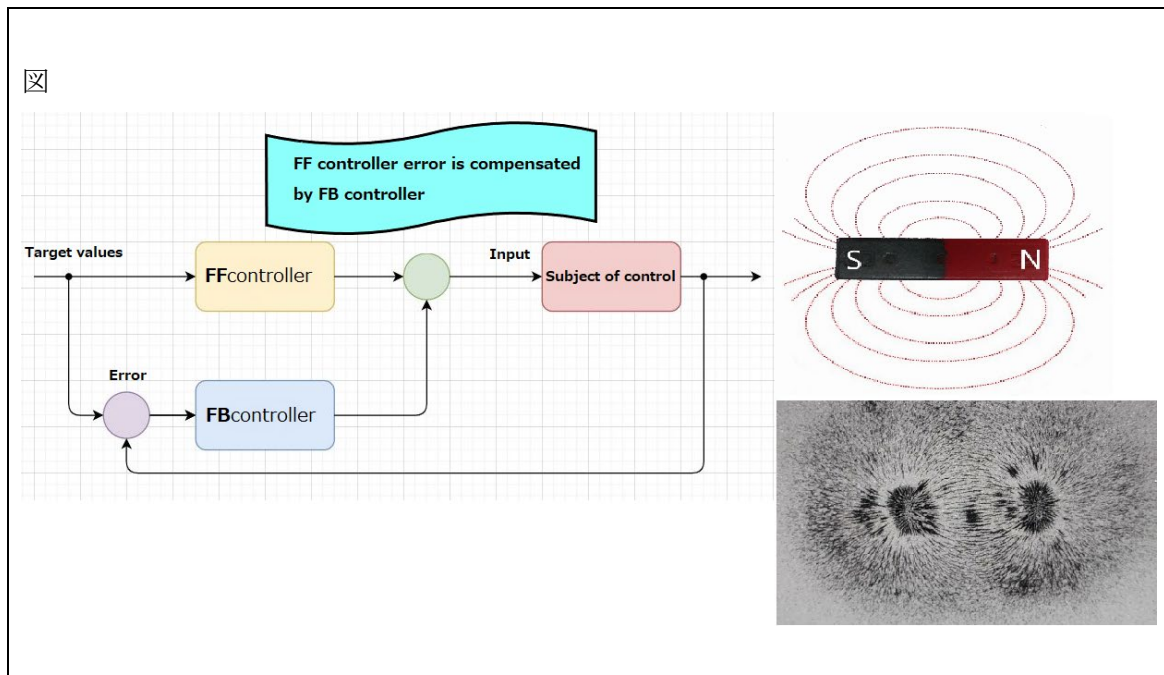
On the image of self-reference

In the modern industrial field, in the control systems of machines, there are two types of control techniques: feedback and feedforward. These two techniques were conceived for the self-control of machines, and the purpose of both is to create self-similarity. These are practical applications of self-referential systems that are actualized as functioning tools. To create a better self is achieved by putting some of the output back into the input. It is a kind of self-referential system.

The latest systems theory of our time is called "autopoiesis." Usually, there are several types of systems theories called complex systems, ranging from simple to complex in a hierarchical manner, and self-organization is the highest of them all. The latest system theory, so-called "autopoiesis," is the first system theory that can be applied to living organisms. This system is self-creation. It is an organism, so it divides cells to make its own parts, produces its own offspring, and repairs itself. However, this is only a thought experiment, and no actual artificial organism has ever been created.

What I am trying to say here is that autopoiesis was conceived as an attempt to explain and express the first part of creation using only matter. As is often said, the rest of creation can be explained in evolutionary terms using factors such as heredity and environmental factors, but the problem was how to express the first part of creation. Autopoiesis is an attempt to solve this problem.

What people say about their own existence is called self-referentiality and is one of the basic human conditions. One comes to perceive the world further by referring to one's own existence and interpreting one's self. Since the 1970s, various areas that can be called social systems, such as life, personality, and organization in the social sciences, have been described as recursive. In other words, a system in which the reference to what is being described selects the structure that appears in the description and produces the elements is a self-sustaining system. This is called an autopoiesis system, and its characteristic self-referentiality has come to receive renewed attention along with the problem of self-organization.



Three diagrams are shown above. The left diagram is a block diagram of a control circuit that incorporates feedback and feedforward in the control technique. A portion of the output is fed back into the input to make self-similarity more accurate.

The right-upper and right-lower figures show a single bar-shaped permanent magnet with S and N poles. The right-upper figure is a schematic representation of the magnetic field lines. The figure on the right-lower is a photograph of iron sand lining up along the magnetic field lines.

As an example of this, I feel that a single magnet with S and N poles represents one of the self-referential units, or a set of states. We think of several such things in parallel. Self-reference is a magnetic field. This is just my image, and I have only described it to explain what I imagined to a third party in an easy-to-understand way, not to support it in any way. To accurately understand the magnetism of matter requires knowledge of quantum mechanics, but quantum mechanics is a realm that denies objective reality. The mysterious properties of magnets are said to originate from the spin of electrons.

Owen Flanagan, professor of philosophy and professor of neurobiology at Duke University in the United States, argues that the self is constructed; it is not given to us as a single entity or a transcendental ego. The newborn gradually builds an integrated self with the help of parents and other people. With maturation and socialization, a distinct identity is shaped, cast largely in narrative form in the stories we tell ourselves.

The self-changes as a result of active engagement with the environment and other persons.

The self-changes as a result of active engagement with the environment and other persons. Our self-representations organize our memories of past events and our plans and aspirations for the future. Models of the self-do not use concepts applicable to neurons, for they reflect our aims and values and our patterns of action and human relationships. The narrative self has causal efficacy as a complex and ever-changing self-representation. It causes people to say and do things and hence has an ontological and not merely a linguistic status. The self is a many-leveled reality that is constructed rather than given; activities at each level have some autonomy and yet are related to each other.

David Chalmers, Professor of Philosophy at the Australian National University and philosopher, holds that consciousness is irreducible but argues that all other biological and psychological states are determined by physical states and are in principle explainable by physical theories. He holds that the cognitive sciences can give detailed functional accounts of memory, learning, and information processing, but they cannot say why these processes are accompanied by conscious experience, which is not defined by its causal roles. Phenomenal subjective experience is known firsthand in sensory perception, pain, emotions, mental images, and conscious thought.

Malcolm Jeeves & Warren S. Brown, authors of "Neuroscience Psychology and Religion," remark in their book. Where does the physicalist view of human nature stand? Although the physicalist stance aims for a unitary and embodied understanding of the mind, it does not necessarily presume that mental life must be reduced only to chemistry and physics. Instead, it supports a range of theories that operate under the heading of nonreductive physicalism.

In this view, while humans are taken to be entirely physical, the brain is seen as complex enough to support the emergence of mental properties and experiences that have a real influence on behavior. This psychological trait or experience has a practical impact on behavior.

A similar view, but with a different emphasis, is dual-aspect monism. The term monism means, in this context, essentially the same thing as physicalism. But the modifier

dual-aspect emphasizes the fact that an adequate description of human nature must entail at least two levels (or aspects)—a physical description provided by neuroscience and a mental description as represented in our subjective experiences and studied by psychology.

There is another view called emergent dualism. Here, the physical reality is taken as first and primary but then from it emerges a completely new entity—a mind or soul. This might seem like it circles back to the dualism of Descartes, but it is actually different: it gives the physical side precedence.

On "Deep Social Mind"

Malcolm Jeeves & Warren S. Brown, authors of "Neuroscience Psychology and Religion," remark in their book. Given the remarkable successes already achieved in neuroscience, neuropsychology, and evolutionary psychology, it is easy to assume that the scientific approach is the only way of gaining reliable knowledge about ourselves. However, to do so would be to ignore a lively and ongoing debate within science itself about how best to balance the benefits of a reductionist approach to the phenomena we study with the contributions made by less reductionist disciplines such as social science. It seems clear from the view of social science that human behavior cannot simply be reduced to the explanations of biological science nor can biological science be reduced to physical science.

Whiten, who is affiliated with the Psychology Lab at the University of St. Andrews in the United Kingdom, took this approach in his study of what he called a "deep social mind" in humankind: "At a descriptive level, the claim is that human beings are not merely the cleverest species, but also the most social, in the depth of their cognitive interpenetration." Drawing attention to such features is important in the task of classifying organisms.

Whiten calls this distinguishing feature a "deep social mind" and further claims that humans are more social—more deeply social—than any other species on earth, our closest primate relatives not excepted.... by "deep" I am referring to a special degree of cognitive and mental penetration between individuals.

Earlier interpretations about substantive "reason" being unique to humans are being

replaced by functional interpretations. One reason for this is that substantive views appear to be too static and too dependent upon a belief in a thinking “substance” called the mind that is distinct and separate from the body. In contrast, however, the Old Testament scholar Gerhard Von Rad has argued that the *imago dei* is found not in what we are, but in what we are called to do. This is the functionalist view of the *imago dei*. It presents humans as having divine status by exercising control and stewardship in the creation.

Another major theme proposed by those championing the relational aspects of the *imago dei* is the capacity for relationship with God. For theologian Karl Barth, it is not just a capacity for relationships that is crucial, but it is relationships themselves—that is, a relationship with God and relationships with each other. In a similar manner, Gerrit Cornelis Berkouwer, professor of dogmatics at the Free University of Amsterdam, argues that the Bible emphasizes the whole human being as the image of God. Human uniqueness is grounded in relational action rather than a substantive property: our love of others makes us concretely in the image of God. Of course, the capacity for interpersonal relationships is not some free-floating, nonmaterial capacity or entity. According to social neuroscience and evolutionary psychology, this capacity is firmly embodied in ways that we are beginning to understand.

Two of today’s most distinguished Christian theologians, Wolfhart Pannenberg and Jurgen Moltmann, add a transcendent and eschatological dimension to the relationship idea. A key word for Pannenberg is exocentricity, emphasizing that we are constantly reaching beyond our experiences of the present world in a search for fulfillment and meaning. Moltmann, in turn, believes that there is a fundamental self-transcendence that defines humankind and will ultimately find its proper identity only in Jesus Christ, who fulfills the image of God in its entirety.

Spirituality : Embedded and Embodied

Malcolm Jeeves & Warren S. Brown, authors of “Neuroscience Psychology and Religion,” remark in their book. We all have this strong intuition: “I” am an immaterial “thing.” We each experience “self” or “mind” separate from the body but inhabiting the body. My intuition is confirmed every day by my friends who share my views—they presume that I have hidden within me a “mind” with intentions, thoughts, and ideas not readily apparent in my behavior. It has also been confirmed by millions of people who have

lived down through the ages, some of them the greatest thinkers the world has known. However, this intuition of ours and this intuition that we share with so many others could be wrong. It could be that the mind is "embodied".

In modern times, the relationship between the mind and the brain is discussed, and many new research findings have shown that the so-called mind is not something that transcends the brain, but rather that the "mind is embodied. The claim that the mind is embodied is not an unacceptable theological notion, but rather is being recognized as an idea with many possibilities for the future.

Fifty years into the "cognitive revolution," we are still asking questions that arose in centuries past: How do we define the "soul" today? Does this parallel the way we now talk about the mind? What does this say about the fundamental nature of human beings? Are we an aggregate of different parts glued together in some ill-defined way—a soul stuck to a body or to a brain—or are we a psychosomatic unity?

The "cognitive revolution" is the general term for the intellectual movement that began in the 1950s and gave birth to the various disciplines known as cognitive science.

In the West, the belief endures that we have an immaterial immortal soul that is somehow and somewhere attached to our body. Many Christians believe that this is what the Bible teaches. However, as we noted, leading biblical scholars are opening the way for believers to hold a different "embodied" interpretation of the soul. In this book, we have argued that, by taking a new view of the soul, there is no necessary conflict between a biblical portrait of human nature, which emphasizes the unity of the human person, and a neuropsychological view of the relationship of mind and brain.

For most of human history, we have cherished the idea that there is a separate immaterial part of each of us—a mind or a soul—that must live somewhere within our body. That has gradually changed with the advent of scientific approaches to mind-body relations. We now view the mind as a functional property of the brain, not "something located somewhere." The mind is a firmly embodied process within the brain, rather like the program that runs within a computer. However, can the same sort of embodiment be presumed for what we traditionally call the soul?

Debates between the localists and globalists have continued well into the twenty-first

century. Some neuroscientists today explore examples of tightly constrained local functions in the brain. Others probe the concept of neural networks and parallel distributed processing. They emphasize the unbelievably complex interconnections and interactions between adjacent and distant parts of the brain. In either case, the older belief that mind is separate from the brain has been completely overturned. Today, we recognize the links between brain events and mind events. What is more, data are rapidly accumulating that support a link between brain and personality, including social and ethical behavior.

Though not without occasional challenges, a general encephalic view became widely accepted. The search now became one of finding out where the mind operated inside the brain. There were just two options: either the mind functioned in specific spots, or it functioned across the entire territory of the brain. This continues to be the great debate in neuroscience. After all, history repeats itself.

Different forms of religious experience, it seems, arise from different parts of the brain. In sum, there is no single brain area where greater or lesser activity is necessary and sufficient to produce what people would take to be a religious experience.

Brain imaging uses noninvasive techniques such as nuclear magnetic resonance imaging (MRI), positron emission tomography (PET), and functional magnetic resonance imaging (fMRI). While MRIs provide pictures of the anatomical structure of a person's brain, PET and fMRI make it possible to monitor regions of the brain that are more or less active while a person is engaged in specific mental tasks. The newest technique is transcranial magnetic stimulation (TMS), which can temporarily disable regions of the cortex without damage to brain structure. In that sense, its effect is "reversible." The TMS magnetic coil is placed on the outside of the skull so that its magnetic field can simply target (turn off) different cortical areas.

These changes in brain activity, as found in imaging studies, are not unique to a religious experience. The mind may certainly interpret the activity in these more general neural systems as a kind of religious state, colored by the religious context of the experience and the personal history of the individual. An important conclusion can be drawn from the above. In the view of the authors of "Neuroscience Psychology and Religion," it is impossible to reduce religion to a basic form of cognitive activity in the brain, unlike language function, which has clearly identifiable neural systems and

structures in the brain. Different forms of religious experience, it seems, arise from different parts of the brain. In sum, there is no single brain area where greater or lesser activity is necessary and sufficient to produce what people would take to be a religious experience. This is because everyday life and religion, rather than being completely separate, overlap in many areas.

Ian Graeme Barbour, American physicist and theologian, author of "When science meets religion," to which I refer in this article, makes the following statement in this book. The biblical assertion that humanity is created "in the image of God" (Gen. 1:27) has sometimes been taken to refer to particular human traits, such as rationality, free will, spirituality, and moral responsibility, that distinguish us from other creatures.

An alternative view in the history of Judaism and Christianity has been that the *Imago Dei* refers to the relation of human beings to God and indicates their potential for reflecting God's purposes for the world. Human creativity can be seen as an expression of divine creativity. If "*Imago Dei*" refers to the human relationship to God, then we humans can make it the subject of scientific research. The "*Imago Dei*" here does not refer to a literal bipedal walking figure, but rather to consciousness and reason.

Malcolm Jeeves & Warren S. Brown, authors of "Neuroscience Psychology and Religion," remark in their book. While body/soul dualism is the most prevalent view of human nature within historical Christianity, this view comes less from biblical sources than from a line of philosophical theories that can be traced from Plato to Saint Augustine to René Descartes. Descartes is most responsible for solidifying this dualist position into a strong categorical body/mind (or body/soul) distinction. Despite his dualism, Descartes was mostly a physicalist.

Descartes did not believe that the body was inhabited by many souls, or nonmaterial forces, that controlled bodily functions, as was commonly believed in his time. Rather, he believed that bodily functions were best understood as a physical "machine." He presumed that the functioning of animals did not transcend these mechanisms. The problem for Descartes was figuring out how such a biological mechanism could result in human reason. He solved this problem by retaining one soul—the rational mind. Thus, humans were considered to be different from animals in having a rational soul that was immaterial and interacted with the physical body through the pineal gland.

It is reasonable to speculate that Descartes would probably have seen rationality as embodied in brain function if he had had the modern data of neuroscience. He would have been able to see (1) mind/brain links, (2) the overlap of some cognitive capacity between humans and other primates, and (3) the neural embodiment of religious experiences and moral decision making. But it was probably impossible for Descartes to imagine such a unitary (physicalist) view of human nature because this sophisticated knowledge was not yet available.

Virgin Mary

That source of gratitude to Mary and Jesus Christ is, consequently, gratitude to Jesus Christ for showing us the way to self-salvation by human beings. Some would say that the existing human being chose to take the time to learn the way to open up the future. To that choice, God responded with the resurrection of Jesus Christ.

Normally, a child is given by a married couple, but Mary alone gave birth to a child because she accepted the holy word of the Annunciation. I felt that this, as a result, implied the path to man's self-salvation by Jesus Christ. Although she was alone in giving birth, she and Joseph raised the child together.

The importance of accepting Mary and Jesus Christ is necessary for man to realize that he, that is, he himself, is not evolved from monkeys. How can one recognize that one is the heir of Jesus Christ, God on earth? It is done through God's salvation. It depends on one's understanding of one's relationship to Jesus Christ and to oneself. It depends on whether or not you will willingly enter into a relationship with yourself, not your ancestors, and not automatically when you are born into this world. You must make your own declaration. This is the covenant with God. We have the heart that Mary is the spiritual mother of the believers and that she is always with the risen Jesus Christ.

Decouverte Gallimard: La vierge, femme au visage divin author Sylvie Barnay Translation Yukari Endo Supervised by Hiroki Funamoto, Sogensha Inc.
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I refer to this book for a quote from the text of the text.

From the beginning, even before the world began, God, who is too holy to be mentioned, chose a mother for His only begotten Son, Jesus Christ. And when the time came for the

coming of the blissful Messiah, he made arrangements for him to be born into the world in human form from his mother's womb.

God showed this mother His surpassing favor in a very special way, by pouring out on her more love by far than He does on all His creatures. In other words, God took out of His treasure His grace toward mankind in heaven and gave her much more than He does toward all angels and saints. He also made her more beautiful and perfect, constantly protecting her from every stain of sin.

She is so full of purity and holiness that, under God, man could not have a greater being than she, and no one but God can think of her in his heart. And the reason she had to shine always with the most divine light that could ever shine, and be completely protected from the stain of original sin, was to achieve an impeccable victory over the serpent that had once plunged mankind into sin.

We declare, state and define that the doctrine that the Blessed Virgin Mary, by the special favor and grace of Almighty God, for the sake of Jesus Christ, the Savior of mankind, was protected from every stain of original sin at the moment of her conception, was revealed by God and must be constantly and unreservedly believed by all believers.

This was followed on December 8, 1854, by Pope Pius IX's declaration that he would establish as doctrine the "Immaculate Conception" that "Mary was conceived free from original sin."

In this text, consequently, the first woman in the Old Testament, Eve, was a "disobedient virgin" who disobeyed God's will, while the first woman in the New Testament, Mary, was a "submissive virgin" who obeyed God's will.

By the way, Mary, the "mother of Jesus," is not a goddess. Nor is she a mythical woman. Mary is a historical figure who gave birth to a son named Jesus about 2,000 years ago. That son later came to be revered as the founder of Christianity, and Mary was deified along with him.

Logically, Mary was responsible for transforming the intangible being of God into a human entity. Mary was the foundation of Jesus Christ. In order to conceive the Son of God, without original sin, a virgin body, without original sin, was necessary. The

Fathers of the early Christian Church linked Mary's existence to the history of God's salvation of mankind, the New Testament was initiated by Mary, and Mary's acceptance of the holy words of the Annunciation led to the establishment of a new covenant between God and man.

There is no denying the similarity between the virgin conception of Mary and those of the goddesses of Egyptian and Greek mythology. However, there is a difference between the two. Mary received the Annunciation by word and consented to it by word, not by physical communion with God. In other words, the scene unfolds in an entirely spiritual context, completely devoid of sensuality. The only certainty we have is that the legend of the virgin conception was widespread throughout ancient society. It was believed that the virgin conception was a metaphorical symbol of divine tradition. Mary's complete detachment from the sexual act was regarded as the ultimate expression of female sanctity, and without this aspect, Mary would never have been given the status of mother of Jesus Christ.

Looking back in history, the 15th~16th century French humanists who advocated a return to biblical origins, and religious reformers such as Zwingli (died 1531) and Calvin (died 1564) in Switzerland and Luther (died 1546) in Germany, condemned the Marian cult as superstition and idolatry. They condemned Mary as superstitious and idolatrous. The Reformers were heirs of the Humanists, who placed the highest priority on the biblical Gospels. They placed value on "the Bible alone" and insisted that Mary's role be limited to what was written in the Gospels and that no other elements should be added to it. Thus, in their view, Mary never played an active role in the history of human salvation. They also denied the "Assumption of the Blessed Virgin" and the "Immaculate Conception" because they are not mentioned in the Bible. However, the Reformers praised Mary as a woman who lived her faith as the "Handmaid" of God.

As time went on, around 1720, the Catholic Church, which had become more "rational," established ever stricter standards to determine whether the miracles and apparitions of Mary reported in various places were "genuine. And in European society after 1750, when rationality was demanded in everything, the "light of reason" came to guide people instead of the "light of God," and the belief in Mary was no longer centered on miracles.

In 1950, Pope Pius XII exercised his prerogative of "papal infallibility" and dogmatically declared the doctrine of the "Assumption of the Blessed Virgin."

In the history of Christianity, the role of Mary has long been controversial. But beyond the various arguments, one thing can be said with certainty. That is that the image of Mary certainly reflects the image of God that human beings have continued to seek. That is why icons, or sacred images and statues, around the world depicting Mary are filled with the radiance of divine beauty.

By His death, Jesus Christ conquered the sin of existing mankind and His own death. Those who are supernaturally born again through baptism also conquer sin and death, just as Jesus Christ did. As a general rule, however, God does not recognize the complete victory of the righteous over death until the end of the world. Therefore, even the bodies of the righteous rot after death, and only at the time of the end of the world are they united with their glorified souls.

God, however, wanted the Blessed Virgin Mary to be exempt from this universal law. The exceptionally privileged Virgin Mary, having conquered sin through the "Immaculate Conception", was not to be subject to the law of corruption in the tomb either. For it was impossible for Jesus Christ, the impeccable keeper of God's law, not to honor His Mother, whom He loved above all else, as well as His Eternal Father. He was able to adorn her with the utmost honor and thus protected her from rotting in the grave. Therefore, we must believe that this is an event actually performed by Jesus Christ.

Therefore, we declare, state and define that it is a doctrine posted by God that Mary, the eternal virgin, the spotless Mother of God, was raised to heavenly glory, both soul and body, when she ended her life on earth.

From the Collections of Church Documents

Explain this table1

	Contingency	Double contingency
	<p>It means "chance," "contingency," "uncertainty," "accident," etc. It can also mean "It also means "to depend on.</p> <p>"Contingency theory" is a Japanese term that translates to "environmental adaptation theory. This theory states that there are various environments in the world, and since there is no single best system, the system should change as the environment changes.</p>	<p>This is equivalent to "double conditional dependence."</p> <p>To make a choice is a negation of the potential that could have been otherwise, and in that sense is a double negation. By experiencing the other as another self that is opaque to oneself, the potential denied in choice is preserved and stabilized as a mutually implied, but unrealized, possibility in both oneself and the other. Luhmann called this situation a double contingency.</p>
1	ontology	epistemology
2	continue	change
3	design	optimization
4	relativity	symmetry
5	digital	analog
6	environment	system
7	cause and effect	cycle
8	finite (time)	infinity (space)
9	class	network
10	diversity	unique
11	death	resurrection
12	unification (harmony)	match
13	secular	sacred
14	body(substance)	soul(life)
15	experience	knowledge
16	object	word
17	value	meaning
18	phenomenon	cause

19	think	feel
20	until the end(until you finish)	as (much) as possible
21	theory of relativity	quantum mechanics
22	particle(quantum mechanics)	wave(quantum mechanics)
23	mass	energy
24	macro	micro
25	natural science(Approach from the nature side)	social science(approach from the human side)
26	luck	technology(probability)
27	(memory) self-awareness	(power of) imagination
28	evolution	creation
29	form	function
30	(past to present) ever	(from present to future) from now on

System theory

Before explaining this table, let me briefly explain "What is a system?" I have used the information from the Web site as a reference.

For example, social systems theory is a theory that attempts to read society from a systems perspective. It assumes that a system is a cohesion or set, or "collection," and that the elements, such as parts or components, that make it up are related to each other and fulfill some function. The function of a system is more than the sum of the functions of its individual elements. The effect resulting from the interaction between the elements of the system is called the "emergent effect."

Because the concept of "system" is so general, it is possible to categorize and integrate the various sciences from a systems perspective, focusing on the isomorphism of models handled by the various sciences. This is systems thinking, and in the 1950s, systems theory, which focuses on the commonalities among the various sciences, emerged in a clear form.

There are many different types of systems. For example, there are systems composed of matter, such as machines, and organic biological systems, such as animals. There are also abstract systems whose elements are concepts, letters, mathematical formulas, etc. The human being, the subject of psychology, can be thought of as a single system. This

system is not closed, but is an open system that interacts with other human beings. Similarly, organizations and cultures are systems. Even in more basic psychological functions, such as perception, wholeness is an important determinant, as Gestalt psychology, a psychology that focuses on the wholeness and structure of the human psyche rather than on a collection of parts or elements, points out. This integrative outlook also allows psychology to directly introduce models from other disciplines and to hint at missing areas for theory completion.

The theory of systems is the first theory in human history in which the concept of a system appeared in its complete form. However, the concept of system did not suddenly appear without any foundation. Even before systems theory was proposed, there had been ongoing discussions over the centuries that led to systems, such as the conflict between vitalism and mechanism.

Before the 19th century, the various fields that were the prerequisites for extracting systems were underdeveloped, and it was not possible to extract and explain systems in a complete form from various fields. Therefore, various explanations of wholeness were regarded as metaphysics, and the stronghold of elemental reductionism could not be broken.

Now, the latest systems theory, autopoiesis, was proposed in the early 1970s by Chilean biologists Humberto Maturana and Francisco Varela. It was intended to ask the essential question, "What is the organic composition of life?" It is said to be a theory that can even refer to how life is generated, autonomously.

Autopoiesis is said to be a system theory that can explain even the subjective world, and has succeeded in breaking through the limits of system theory up to "self-organization," which is difficult to refer to the autonomy of life. Focusing particularly on the metabolic and nervous systems of cells, they have incorporated the essential properties of the system itself as a system that transcends material types, including circular organization and the ability to determine its boundaries by itself. Today, as a concept that can describe such self-referential and self-determining systems, it has been applied to a variety of fields beyond its original biological subject. Because of its cutting-edge nature, there is no unified view of auto-poiesis in the academic world, and discussions are based on a variety of interpretations. The term autopoiesis is a Greek word coined from the Greek words "auto" meaning self and "poiesis" meaning production, production,

or creation.

Niklas Luhmann, a professor of sociology at Bielefeld University, built his social systems theory on the term autopoiesis. Proposed by Humberto Maturana and Francisco Varela as an explanation of the essential question, "What is the organic constitution of life?" autopoiesis was originally proposed as a biological theory to define life. Maturana believed that "life is an autopoiesis system. Although only a biological theory, in the 1980s, German sociologist Niklas Luhmann applied this theory to sociology and published his original "social systems theory." This theory considered society as an autopoiesis system, and this led to various things being regarded as autopoiesis systems, and autopoiesis theory has come to be applied in various fields.

Explain this table2

Niklas Luhmann's social systems theory is based on multidimensional, complementary, and interpenetrating systems. Let me explain why I have used Niklas Luhmann's social systems theory to describe human consciousness and reason. When we think of things as a system, it is best to do so in a way that is common to all when communicating our intentions to others, that is, in the most up-to-date way to communicate in a universal way. If we imagine multiple elements functioning organically as a single mechanism, it would be appropriate to consider human consciousness and reason as an autopoiesis system in order to describe them. For this reason, we have adopted Niklas Luhmann's theory of social systems.

The autopoiesis system is a system that produces the elements that make up the self, that is, it produces itself and changes its form.

Reduction of complexity

One of the characteristics of Niklas Luhmann's theory of social systems is simply expressed as a reduction of complexity. It means that we must prepare ourselves to deal with complexity. For example, if one wants to handle the finer parts of a watch, one must have dexterity and also delicate nerves, and a tenacious spirit. If you are strong but rough, you will not be able to handle complex and delicate objects. It may fail to notice a delicate object and destroy it. Inherently, "reduction of complexity" means being both powerful and able to see the delicate object. "Reduction of complexity" means that

people need to acquire the necessary skills and mindset to be able to deal with such things.

I have tried to express it in a concrete table. I tried to express this table in a list to show the relationship between scientific and religious concepts from the items represented in the table, using reason, which is a universal human function. The reason why I expressed it in such a table is because I thought it was necessary to capture the whole picture at once, since modern society is fragmented and diversified.

I think it is necessary to describe these contents in a way that includes structural relationships, rather than listing them one by one in a bulleted list. Consciousness is what represents where the person stops and pays attention, and reason is the object to which consciousness refers.

I believe that Niklas Luhmann's social systems theory is a theory built on autopoiesis, which is an artificial creation by humans, but how can it respond to natural phenomena? Since the autopoiesis system is based on the principle of the neural mechanism of the organism, which is organic in nature, we believe that it can be well matched and accepted with natural phenomena.

The system maintains its system boundaries by making itself more complex to the extent that it can tolerate more complex and bizarre relationships with its external environment. This is called "reduction of complexity." A system that responds to the complexity of the real world responds to external complexity by retaining internal complexity. Failure to respond means death. Death for a living system is the cessation of the operation of the autopoiesis system, or its extinction.

Organisms automatically respond to "reduction of complexity." An example is given of the manifestation of the reorganization of the brain in order for humans to respond to changed environmental circumstances. The organism's behavior in response to its natural environment is reorganized into a mode of behavior that seems best for its existence.

Defining the relationship between "contingency" and "double contingency"

"Contingency" in the left column means that we are a mixture of certainty and uncertainty, and that there is nothing inevitable about the situation in which we currently find ourselves. We happen to exist in such a world. There is no absolute basis for such a situation. In fact, such contingency is the essence of life. Contingency makes us anxious. But this anxiety is the proof that we are life.

The "double contingency" in the right column is also known as "double conditional dependence". Double conditional dependence is a double negation in the sense that to choose is a negation of a possibility that could have been otherwise. Here is an example of a strong affirmation with a double negation: the sentence.

"One cannot help but love someone."

The above example sentence "negates" the negation once again. It has the same meaning as the affirmative, "I love someone," but with emphasis.

In double negation, there are not only expressions of strong affirmation, but also usages of double negation that express an ambiguous affirmation that is not clear whether it is an affirmation or a negation.

"That's not necessarily a bad thing."

The above example sentence, on first reading, is not clear whether it is correct or incorrect.

This example sentence of double negation implies an affirmation of "correct" by negating the negation with a further negation, but with a more subtle nuance than the statement "correct." Thus, the "double contingency" adds additional information to the main body of the sentence rather than directly expressing it. In other words, something is there, but it is not a clearly visible entity.

Let us apply this to human consciousness. We assume that others are our opaque selves. In other words, by experiencing oneself as another, the potential denied by choice is

preserved and stabilized as a mutually unrealized but implied possibility in both oneself and in the experience as another. Luhmann called this situation "double contingency."

From the table, a few excerpts illustrate "structural couplings"

"**Structural coupling**" is the process by which a system maintains its very reproduction mechanism, its "organization," by altering its own structure and changing its environment in the face of environmental disturbances. This ongoing process between the system and the environment is what Maturana called structural coupling. Niklas Luhmann called the "system" paired with the "environment" in a limited area in the real world a "structural coupling."

If you look at the right column of the table from top to bottom, you will notice that the elements that seem to need a medium to be represented are listed.

For example, regarding the structural coupling, or combination, of "**continuity**" and "**change**," you can clearly see that the "change" on the right side has more information. That is, we can see an increase or decrease of information over time. In the "Continuity" on the left side, the cross-section of information relative to the time axis is constant and remains so over time. In "change" on the right, what is changing is an increase or decrease in the level of the medium that represents some information, indicating a change in the cross-section of information volume over time.

Let me explain "**design**" and "**optimization**." Generally speaking, design refers to determining the internal structure, dimensions of each part, external design, and so on. Optimization refers to tuning the relationship between the components of the system, modifying the state and behavior of the system, and changing the form of the system to bring it closer to the optimum state. This refers to tuning the relationships among the components of the system, modifying the state and behavior of the system, and changing its form to bring it closer to an optimal state.

If the components of the system are made applicable to the design as "**particles**," the relationship between each element and its position and relationship within the whole can be expressed as a "**wave**" of optimization.

Let me explain "**relativity**" and "**symmetry**." Relativity means that the motion of an

object is a cognitive event that is subjectively perceived by an observer. The motion of an object has a concrete, physical meaning only when it interacts with something else. Relativity does not require any standard, but is a subjective perception that can be arbitrarily determined, for example, how the object appears to the observer himself. The magnitude of an object's motion, of course, but also the "existence of motion," whether the object is stationary or moving, depends entirely on the observer's position. In relativity, there is no so-called "absolute motion" that can be defined from an objective standpoint as "being at rest," "being in motion," or "being at speed XX. In relativity, it is indirectly stated that space serves no purpose as a background for absolute coordinates.

Symmetry is the property of an object that does not change when a transformation is applied to it, for example, with respect to a left-right flip or a 45° rotation. This unchangingness refers to the shape of the object.

In general, the symmetry of an object means that the form of the object does not change when a specified operation is applied to it. Such an operation is also called a "symmetry operation" or a "transformation. For example, when we say that a sphere has rotational symmetry, we mean that a sphere can be rotated by any angle about an arbitrary line passing through its center and still exactly overlap with the original sphere.

Symmetry in physics can be defined as the symmetry of a physical system, i.e., the "invariance" of the aspect of the system under a particular transformation.

"Invariance" can be rephrased as the mathematical specification of a transformation in which a quantity is constant and unchanging. This concept can be applied to fundamental phenomena observed in the real world. For example, suppose that the temperature in a room is ideally constant everywhere. Since the temperature does not depend on the position in the room, we can say that the temperature is "invariant" with respect to the movement of the position of the person being measured.

So far, I have explained symmetry as a mathematical or physical definition, but in order to have an internal pair structure and to remain unchanged from its original form even after various symmetry operations are applied, it must possess many symmetries.

Regarding the combination of "**relativity**" and "**symmetry**," it is possible for humans to perceive the real world from a relative perspective alone. Symmetry has the property of

requiring a medium, as explained in the "double contingency" section. It is an incidental mechanism that can be added to relativity. The relationship between relativity and symmetry is structural coupling. This structural coupling is supposed to benefit both of the pairs. They are complementary, not antagonistic. Relativity is the basic mechanism, but adding the property of symmetry makes it a circular system.

The nature of symmetry can be understood not as geometry or physics, but as the ability to regain deformation. Nature has become less realistic in recent years, with changes in the four seasons, allegedly due to global warming. Seasonal changes have resulted in shorter periods of spring and fall and longer periods of summer and winter. If global warming is caused by excessive economic activities, some measures may be necessary. However, if we consider temperature changes in terms of historical length, we have not necessarily been repeating the same cycle, with warmer temperatures in some periods and another ice age in others. Opinions differ as to whether such things should be left to nature or whether they should be managed by humans.

Let me explain about "**death**" and "**resurrection**." After death, the human body ceases to exist. In most cases in Japan, this is so because we are cremated. According to the latest research, the human mind and body are described as "embodied" during life and cannot be separated.

By the way, are the heart and the soul the same thing? The heart is used in the field of morality and in general fields such as psychology, while the soul is used in the religious field. Souls are also used in the minds of people who have a high opinion of the dead person's character and conduct. After death, the soul is said to leave the body and go to heaven or hell. The afterlife is probably not composed of matter, so it is something that cannot be explained scientifically, whether it exists or not.

Since there is no point in thinking about things that cannot be determined or that have no basis in reality during one's lifetime, I would like to consider "death and resurrection in the real world" here. Let us consider "resurrection" in conjunction with "salvation. When we speak of "resurrection when alive," we mean being spared from mortality. When a person is truly dead, there is nothing humanly possible to do. Salvation after death becomes a matter of interpretation.

The Crucifixion

As they went out, they found a man of Cyrene, Simon by name. They compelled this man to carry his cross. And when they went come to a place called Golgotha (which means Place of the Skull), they offered him wine to drink, mixed with gall, but when he tasted it, he would not to drink it. And when they had crucified him, they divided his garments among them by casting lots. Then they sat down and kept watch over him there. And over his head they put charge against him, which read, "This is Jesus, the King of the Jew." Then two robbers were crucified with him, one on his right and one on his left. And those who passed by derided him, wagging their heads and saying, "You who would destroy the temple and rebuild it in three days, save yourself! If you are the Son of God, come down from the cross." So also the chief priests, with the scribes and elders, mocked him saying, "He saved others; he cannot save himself. He is the King Israel; let him come down now from the cross, and we will believe him. He trusts in God; let God deliver him now, if he desires him. For he said, 'I am the Son of God.'" And the robbers who were crucified with him also reviled him in the same way.

Jesus Christ brought the good news entrusted to Him by "Almighty God," but the masses asked Him how they could save themselves. The masses said, "He saved others; he cannot save himself. He is the King Israel; let him come down now from the cross, and we will believe him. He trusts in God; let God deliver him now, if he desires him. For he said, 'I am the Son of God.'" Answering this question was the last gospel that Jesus revealed with his physical body.

The mindless masses spoke out, "He saved others; he cannot save himself. He is the King Israel; let him come down now from the cross, and we will believe him. He trusts in God; let God deliver him now, if he desires him. For he said, 'I am the Son of God.'" The timing of these words is important. Jesus Christ was still alive when these words were hurled at Him. The masses were not saying, "Come back to life after you die."

And Jesus Christ was resurrected. He showed us "how to save ourselves" by hanging Himself on the cross. He was caught without sin, put on trial, sentenced to death, and crucified and killed. However, the crucifixion was foretold by Himself. The only way to know that this is the teaching of truth is for Jesus himself to demonstrate it with his

own body. The public thinks that words alone may be a lie. He really was killed that way. However, we may understand that the resurrection of Jesus Christ after His death indicates that God Almighty showed that His actions were in accordance with His will.

Now, can a person who is trapped at the edge of death, that is, at the end of his life, escape from that predicament on his own? The only way is through medical and pharmacological methods. The level of salvation will be determined by the medical technology of the time. In other cases, one can be saved by having someone else shoulder or remove the difficulty. In other cases, one may escape from it, but the basic condition for saving oneself is to do it voluntarily.

There is an old Western proverb that expresses this, "Heaven helps those who help themselves." It means, "Heaven helps and gives happiness to those who strive on their own without relying on others." This is the result of a search on a Web site. I somehow understand the nuance. It probably means that it is not good to depend on others all the time.

Since this is a Western proverb, I believe that heaven means "God Almighty." If you read it more deeply, I think it means, "Notice the presence of the other I who resurrects itself after death, because I am now helping you in the real world."

When self-help is performed with a single self, paradox and tautologies can occur. In order to avoid paradox and tautology in self-referential communication, the self is divided into two parts instead of a single entity, and the self is considered as a system consisting of elements that influence each other.

I considered the self to be composed of two elements. I expanded on this juxtaposition of the two and gave special meaning to the combination of "contingency" and "double contingency". Luhmann referred to contingency and double contingency as a mechanism called "structural coupling.

The interpretation of contingency is "a being to whom all things are attributed to himself." The interpretation of double contingency is "a being that cannot avoid being involved with others." It can be said to be a combination of "the self that can be realized by itself" and "the self that is realized by leaving it to others. It can also be a combination of "the self that exists as a stand-alone entity" and "the self that belongs to

society." In simplest terms, it is a combination of "private self" and "public self."

In conclusion, this is what I believe "**death**" and "**resurrection**" mean. In the real world, death in living beings is an inevitable element and cannot be avoided. Every human being will always die. If we are alive, it is important to realize that if we happen to fall into a difficult situation that we encounter, there is a mechanism in place to save us, and we can return to a healthy state of being again. One of the combinations is "to the end" and "as far as possible," and I think the phrase "as far as possible" in the right-hand column also means to stay in the state before death.

I would like to explain about "purpose" and "reason," although the combination is not shown in the table. For example, when we consider an action, if only the "purpose" in the left column is given, it means that the action is ordered by others. When the "purpose" and the "reason" are given together, it is a spontaneous action by the actual actor, even if it is commanded by others. It is the "purpose" and the "reason" that actually communicate. The combination of "purpose" and "reason" produces "spontaneous action. This communication needs no other elements than "purpose" and "reason" and is closed. If only the "purpose" is given to others, then the "reason" section will contain elements that are not inherent. In this case, it is an "order. The "purpose" and the "reason" are still "purpose" and "order," and the two communicate and the action is carried out, but they are not the original elements. The "purpose" and the "reason" would be preferable. In an autopoiesis system, "spontaneity" is fundamental. "Reason" can be thought of as a mechanism to induce spontaneity in humans.

Artificial Intelligence

Artificial intelligence is not the same as an electronic calculator. It is not an electrical substitute for some of the functions related to human intelligence.

Let us take an example of its use in the field of dentistry. Teeth have a three-dimensional shape. The tooth shape is sculpted by nature, and various organisms have teeth. Why did each organism acquire such a unique and distinctive shape? In many cases, it may have to do with food habits.

Human teeth also have completely different shapes in anterior tooth and molars. It may be that the anterior teeth have different functions than the posterior teeth. Computers

are good at measuring shapes and capturing data into computers. The area in which computers currently excel is in converting three-dimensional shapes into data and performing simple edits that remove noise from the data. Currently, deforming and modifying the tooth shape to suit the purpose is done manually by humans.

What is required for the function of artificial intelligence? It is to measure the three-dimensional shape of teeth with a three-dimensional scanner, capture the data, and then use a computer alone to think with algorithms similar to those used by humans and re-edit the data to suit the purpose.

In the conventional method, a computer and a human being were in charge of processes related to the creation of dental prosthesis and the creation of three-dimensional materials for diagnosis, with each taking charge of his or her own area of expertise and sharing the responsibility. Nowadays, there is a demand for artificial intelligence to take over all of these tasks. The reason why this kind of functionality is required is that all the editing has to be redone manually, just by making small changes to the editing conditions. This is a very time-consuming process. For example, it was not easy for dentists to create diagnostic data in three dimensions while performing treatment. I believe that such a demand exists in dentistry today. I think it is important to create a system that enables dentists to do such things.

How can an artificial intelligence recognize the shape of a tooth, a natural object, in four dimensions? This expression four-dimensional is because the teeth of the mandible move. The tooth shape, which functions only when the mandible moves, is a three-dimensional shape, but it contains four-dimensional data.

What is necessary for artificial intelligence to carry these conditions? I believe that the key words are "Table of Consciousness and Reason," "time administrator," and "spatial administrator." That is what I believe.

This is from the web site. (<https://ecclab.empowershop.co.jp/archives/69332>) Translated from Japanese to English.

It is all the bright prospects we hear about AI (Artificial Intelligence). It may come as a surprise that researchers are completely divided in their approach as to how the field should develop. There is apparently a split between proponents of traditional logic-based AI and enthusiasts of neural network modeling. In a brief survey of the

controversy, computer scientist Michael Wooldridge, professor of computer science at Oxford University, describes it as "Should we model the mind or the brain?"

AI has its historical roots in a thought test known as the "Turing Test" published by the English mathematician Alan Turing. The test seems to have been intended to provide a criterion for determining whether human intelligence, in other words, the mind, has been successfully modeled.

For decades, successfully modeling intelligence has been the main goal of AI. The term "symbolic AI" refers to the commonly accepted assumption that human intelligence can be replaced by logical descriptions and captured by symbolic logic. This approach has enabled great advances in AI by dealing with distinctly localized areas of human intelligence by clearly defined rules. That includes, of course, mathematical computation and the well-known game of chess. The problem is that much of human thinking has failed to clearly demonstrate those rules, even though they underlie the human thought process.

Traditional AI lags behind in pattern recognition and cannot understand images. The same is true for creating a set of rules for skills like hitting a ball or riding a bike. Humans learn to do, or not to do, a behavior without learning a set of statements describing the required behavior.

Traditional AI has been implemented by replacing human intelligence with logical descriptions. Often, it has been misrepresented as being based on modeling the networks in the human brain.

An alternative approach to new AI draws inspiration from how human neural networks work. Large artificial networks of "nodes" trained on large data sets learn to recognize statistical relationships in the data, and feedback loops between node layers create the potential for self-correction. This approach is given the name "deep learning" because the scale at which it can be processed is extremely large and the nodes are divided into multiple layers. It is precisely that scale that has been an obstacle to the development of deep learning approaches. Until relatively recently, there was not enough data or computer power to make deep learning practical and cost-effective. But things have changed, and in recent years, for example, we have seen rapid improvements in AI image recognition.

The downside of deep learning, especially when it comes to understanding text, is that this very powerful engine essentially operates without recourse to anything: AI recognizes vast amounts of correlations in a given set of data and reacts accordingly. It does not understand the data intellectually, so errors, biases, etc., can become deeply embedded, unless humans correct the problem. Simply put, a deep learning system with enough processing power to absorb the entire Internet world will absorb a lot of nonsense, some of it malicious.

Roger Shank, an American artificial intelligence scholar, as well as a cognitive psychologist, learning scientist, educational reformer, and entrepreneur, writes ". Questions like, "Can a computer feel love?" are not critical. We certainly understand quite a bit about what we know about humans. More importantly, the ability to feel love is independent of the ability of a computer to understand.

Professor Rosalind W. Picard is the founder and director of the Emotional Computing Research Group at the Massachusetts Institute of Technology's Media Lab. She argues that The brain has trillions of neurons, each of which has relationships with approximately 10,000 neighboring neurons. The number of ways in which neurons can be connected to each other is greater than the number of atoms in the universe. Signals between neurons are not digital signals, but are encoded in continuously variable properties, such as electrical potentials or the frequency of oscillations that stimulate neurons. New knowledge from neuroscience will no doubt influence the design of future computers. But we should not underestimate the differences or discrepancies between computers and the brain.

Dynamic Core Hypothesis (Consciousness)

Since we are talking about artificial intelligence, we still need to know more about the function of the brain. Therefore, we present the following text regarding knowledge of human consciousness and reason, which are important functions of the brain.

Malcolm Jeeves & Warren S. Brown, authors of "Neuroscience Psychology and Religion," remark in their book.

Since conscious thought is of foremost importance in understanding the relationship between neuroscience, psychology, and religion, it is important to understand this

process more deeply. The most important, and perhaps the most distinctive, thing in human beings is to be conscious.

In our view, the most helpful model of consciousness that modern research has produced is called the “dynamic core hypothesis.” It is well supported by the experimental literature, and it clarifies the difference between the conscious control of behavior and behaviors that are more unconscious and automatic.

Gerald M. Edelman is a scientist who won the Nobel Prize in Physiology or Medicine in 1972 for his "studies on the chemical structure of immune antibodies. After winning the prize, he changed his research focus and introduced an evolutionary perspective to brain science, proposing the " Neuronal cell group selection theory = Neural Darwinism" in 1987. The other, Giulio Tononi, is an American psychiatrist and neuroscientist from Trento whose research focuses on consciousness and sleep.

This model has been ably presented by neuroscientists Gerald Edelman and Giulio Tononi in their book *A Universe of Consciousness: How Matter Becomes Imagination* (2000) (a book not yet translated in Japan).

In describing consciousness, Edelman and Tononi suggest a two-part model. Primary (or basic-level) consciousness is evident in the ability of many animals to “construct a mental scene,” but this form of consciousness has limited semantic or symbolic content. Higher-order consciousness is “accompanied by a sense of self and the ability, in the waking state, to construct explicit past and future scenes. It requires, at minimum, a semantic capacity and, in its most developed form, a linguistic capacity.”

What is most noteworthy about the dynamic core hypothesis is its specification of the most likely neurophysiological basis of conscious awareness. Edelman and Tononi argue that a state of consciousness and its content (whether primary or higher-order) is a temporary and dynamically changing process within the cerebral cortex that is characterized by a high degree of functional interconnectedness among widespread areas.

According to Edelman and Tononi, dynamic cores (and thus consciousness) are characteristic of the mental life of all animals to the degree that the cerebral cortex has sufficiently rich recurrent interconnections. The higher-order consciousness that is

distinctive in human beings comes into play when symbolic representations and language are incorporated into dynamic cores, including the ability to represent the self as an abstract entity and to use symbols to note time (past, present, and future). Since language and other symbolic systems are learned, higher-order consciousness is a developmental achievement dependent on social interactions and social scaffolding.

In the early learning of difficult tasks or behaviors, the performance must be incorporated in and regulated by the dynamic core (that is, by consciousness). However, once the behavior is well learned (and automatic), it can go forward efficiently based on the activity of a smaller subgroup of cortical neurons (and subcortical connections) that do not have to be incorporated into the current dynamic core. For example, during normal adult speech, the basic lexical and syntactic aspects of language processing can go on in the background, while the dynamic core embodies the ideas that one is attempting to express.

It is not just having a cerebral cortex that forms our humanness, but the organization of the cerebral cortex. The highest level of the control hierarchy (in the polymodal cortex and prefrontal cortex) is not only relatively larger in humankind but slower to develop, allowing maximal opportunity for the richness of human society and culture to influence the networks of functional connections.

We believe it is no longer helpful or reasonable to consider mind a nonmaterial entity that can be decoupled from the body. The mind is an active process by which we constantly modulate our action in the world (including the world of human society and culture). Out of continual experiences of action and feedback, the mind becomes formed as a functional property of our brain and body.

For any of us to accept that our “I” is not a separate inner agent—like the captain of a ship—is a very hard task, counterintuitive to all we know. In other words, the mind is embodied.

All functions of the mind and brain are determined by brain physiology and neuronal activity and are explainable by those activities.

Dynamical Systems Theory (Emergence)

Roger Sperry is an American neuropsychologist who, along with David Hubel and Torsten Wiesel, was awarded the Nobel Prize in Physiology or Medicine in 1981. The Nobel Prize was awarded for his work in split-brain research. Roger Sperry stated the following.

Thus, by the 1970s, Roger Sperry argued that there had been a shift in the scientific status and treatment of conscious experience, a shift that would have far-ranging philosophic and humanistic, as well as scientific, implications. He argued that these “mentalist revisions” in the understanding of human nature “invoke emergent forms of causal control that transform conventional scientific descriptions of both human and nonhuman nature.”

By believing that the causal role of cognitive processes cannot be “reduced to” isolated brain activity, researchers were not at all restricted in their localization studies of memory, speech, and mental planning, for example.

They also expanded on their holistic interpretation of the brain’s higher-mental causes. They viewed them as “emerging” from an ensemble of brain networks, not just a single node or module.

The concept of emergence refers to the possibility that complex entities (like organisms) can have properties that do not exist within the elements (such as molecules) that make up the complex entity. Thus, even an amoeba, as a complex organization of molecules, has properties that do not exist in the molecules themselves. The activity of the amoeba is governed by the current state of the organization of these molecules, not the properties of the molecules themselves. Hence, the activity of the amoeba is an emergent property. Another term for emergence is dynamical systems theory.

It attempts to explain how new causal properties (whether the behavior of amoebas or humans) can emerge in complex systems that are characterized by a high level of nonlinear interactions between their elements. A perfect example is the human cerebral cortex. Its millions of neurons and massive number of interconnections are ideally suited for a dynamical system. From the countless separate pieces of human neurobiology, the cerebral cortex produces the high-level (and nonreductive) cognitive

properties of a whole person.

The ant colony is another analogy for how complex dynamical systems produce new, whole-system properties. Of course, an ant colony cannot support the emergence of something like human cognition. But that is not only because ants are “mindless”; it’s because the complexity of ant social interactions are vastly less complex than that of neurons in the brain! Still, we can imagine individual ants as analogous to individual neurons. That makes the colony something like a brain, where the emergent properties exceed the ability of individual ants.

Ant colonies (as colonies) show various forms of “intelligent” behavior. They manage to locate the trash pile and the cemetery at points where they are closest to each other and also at points where both are closest to the ant colony itself. Hence, the ants have solved a spatial mathematical problem. Colonies also solve the problem of the shortest distance to a source of food. They prioritize food sources.

But who is doing the solving? The solution is beyond the capacity of individual ants. Most interestingly, colonies modify their behavior over time. Colonies as a whole go through stages, progressively changing their colony-level behavior. Young colonies are more persistent and aggressive, but also more fickle, than older ones.

Each individual ant, however, operates by a set of simple rules of responding to information from the social and physical environment. A great deal of work has gone into describing these rules. The question is whether the rules governing individual ant behavior are sufficient to explain all of the colony behavior or whether there are properties of colony behavior that are emergent and cannot be reduced to the rules governing individuals ants.

Dynamical systems theory gives us a way to understand how both complex whole-ant-colony behavior and higher-order human cognition can emerge from the interactions of less complex elements (ants or neurons).

When environmental change pushes complex dynamical systems (such as ant colonies or human brains) away from equilibrium, they self-organize (and progressively reorganize) into new interactive patterns to deal with the new environment. These new patterns form as the interactive elements (individual ants or neurons) constrain each

other's activity. Individual elements start working in a coordinated manner, and the probability of each element's doing one thing or another is altered by its interactions with all of the other elements.

Hence, an aggregate of individual elements (ants or neurons) becomes a new dynamical system (a colony with particular colony-wise properties or a brain with cognitive properties). Once this system is organized, its lower-level properties (rules of individual ant behavior or of neuron firing) interact bottom-up with the top-down relational constraints. This bottom-top interaction creates higher-level patterns (colony coordination or whole-brain functioning) without any change in the physical laws at microlevels (within individual ants or neurons). In doing so, it does not alter in any way the physical laws at the microscopic level within individual ants or neurons.

By adapting to a changing environment, these dynamic systems embody what we can call meaning. That is, the state of organization of the system carries forward a "memory" of previous interactions with its environment embodied in its current organization. On the basis of previous organizations and reorganizations in response, the system is more adequately prepared to deal with similar situations in the future.

These constant reorganizations of the system do more than just adapt to a changing environment: they create increasingly more complex forms of organization. Multiple smaller systems can be reorganized into a larger system. The process creates a nested hierarchy of more and more complex emergent functional systems. Paradoxically, the constraints that lower-level elements (ants) put on each other help produce greater freedom at the higher level of the system as a whole (colony). The system develops a substantially greater number of possible interactions with its environment than it had in each preceding step of self-reorganization. The most interesting property of complex, nonlinear, dynamical systems is that they manifest novelty.

The most interesting property of complex, nonlinear, dynamical systems is that they manifest novelty. Even in small-scale mathematical models of dynamical systems, no two runs of the same system model ever come out exactly the same. Considering all these features of dynamical systems, they become perfect models for our understanding of the human brain.

We can imagine how the physical brain produces truly causal emergent properties that

cannot be explained by the lower operation of physics, chemistry, and neurons.

Top-down & Bottom-up Discussions

Given this debate between top-down and bottom-up advocates, where does the physicalist view of human nature stand? Although the physicalist stance aims for a unitary and embodied understanding of the mind, it does not necessarily presume that mental life must be reduced only to chemistry and physics. Instead, it supports a range of theories that operate under the heading of nonreductive physicalism. In this view, while humans are taken to be entirely physical, the brain is seen as complex enough to support the emergence of mental properties and experiences that have a real influence on behavior. A similar view, but with a different emphasis, is dual-aspect monism. The term monism means, in this context, essentially the same thing as physicalism.

The modifier dual-aspect emphasizes the fact that an adequate description of human nature must entail at least two levels (or aspects)—a physical description provided by neuroscience and a mental description as represented in our subjective experiences and studied by psychology.

There is a view called emergent dualism. Here, the physical reality is taken as first and primary but then from it emerges a completely new entity—a mind or soul. This might seem like it circles back to the dualism of Descartes, but it is actually different: it gives the physical side precedence.

One neurologist has made the provocative comment that if our behavior is governed by whether or not our brains are working well, doesn't that mean we humans don't have as much free will as we think we do?

More than a century of accumulating evidence has revealed one thing: no matter how much we examine the brain in detail, it is still an organ of the mind.

Deep Learning

I have no knowledge or experience with artificial intelligence technology, so I will list below some information that I have obtained from web sites, but which may be relevant to artificial intelligence. The term "deep learning" is mentioned, and I think this deep

learning means the reorganization of programs by the computer itself to be able to respond to individual cases.

Deep learning is a central technology for artificial intelligence, but according to artificial intelligence experts, deep learning is viewed as a natural phenomenon rather than engineering.

Programmer Ryo Shimizu's book, "Deep Learning Programming for the First Time," describes it as follows. Professor Yutaka Matsuo, a well-known researcher in artificial intelligence at the University of Tokyo, has stated that "he sees deep learning as an invention since the agricultural revolution."

The text that follows is an English translation of a copy from the website.
(<https://wirelesswire.jp/2016/06/54115/>)

Now, on the other hand, some argue that deep learning is not a good subject for research. This is because there are so many reasons why it works, and the reasons are not well understood. As a programmer myself, I feel that there are many things in machine learning, not just deep learning, that we cannot understand in theory. However, now that deep learning has shown that machine learning can be used "far more practically than conventional methods," it would be a loss not to use it. At the "Super AI Emergency Countermeasures Conference," a panel discussion at the Nico Nico Super Conference held at Makuhari Messe in April 2016, Professor Masahiko Inami of the University of Tokyo made the following statement. That is, "even if artificial intelligence advances, it should be viewed as "newly discovered nature.""

#"Nico Nico Super Conference" is a participatory event that calls itself "a meeting of offline and online" and is held at Makuhari Messe, hosted by Dwango Inc.

Indeed, machine learning is more aptly thought of as a natural phenomenon than as an engineering technique. Although the principles of machine learning have not been elucidated, the idea that machine learning can be used because it can be controlled from an engineering perspective is not limited to artificial intelligence. Even physical phenomena have not yet been fully understood, and we do not yet know why they occur. The basis of engineering is to accept the preconditions of reproducible phenomena as a lower layer and construct an upper layer. Deep learning can also be engineered and

controlled and used in any number of ways if we treat it as a black box and view it as "a component that judges images" or "a component that recognizes voice". Right now, there are not that many engineering applications for deep learning. It is unknown what deep learning can actually do and how far it can go. I believe that as we accumulate engineering applications, we will come to understand deep learning as a natural phenomenon. Creating a good deep neural network requires a good teaching strategy. At the moment, that part of the process still has to be figured out by humans. In the time that will eventually come, deep learning will be studied as a natural phenomenon. Because deep learning is similar to a natural phenomenon in many respects.

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