

The Human Being as a Knowing Subject in Relation to Information

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1. Introduction

What does it mean for us to obtain information? Especially when we know ourselves — if it is possible to say that in this way a human being would obtain information about himself — can we get a deeper understanding of ourselves than before? Or rather, do we have to say that that kind of understanding would be an obstacle to our attaining a proper understanding of the human?

To find an acceptable answer to the question, let us first clarify the relationship between information and human beings. Examining this relation, I would like to establish a viewpoint for consideration of the human being as a knower, a subject of consideration. In many cases the human being only as a known object may be informed and understood as the content of the information about a human being. On the other hand, the human being as a knower, who obtains knowledge, will also be informed with various information. The human being, both as a knower and as a known object, then is informed at the same time. Owing to this duplication, the relationship between information and a human being is equivocal and vague.

When the conjunction *and* links two words, e.g. information and a human being, it is supposed that the two must have a certain concomitance or coexistence. In other words, a man about whom various information is known is not a man who does know, as far as to be known is not to know. However increased the content of information about man, the knowledge still remains that of a known thing, not of a knower as a knowing subject. But because in reality a man who is known is identical with a man who knows, it must be proper to the existence of the human being as a knower to be both a known object and a knowing subject.

2. Vagueness of the conjunction *and*

When Kenzaburo Oe won the Nobel Prize in 1994, he gave a lecture entitled "Japan, the Ambiguous, and Myself."(1) In the lecture Oe referred to Yasunari Kawabata, whose lecture as a Nobel laureate for literature had been entitled "Japan, the Beautiful, and Myself."(2)

Yasunari Kawabata, the first Japanese writer to stand on this platform as a Nobel laureate for literature, delivered a lecture entitled "Japan, the Beautiful, and Myself." It was at once very beautiful and very vague. I use the word "vague" as an equivalent of the Japanese *aimaina*, itself a word open to several interpretations. The kind of vagueness that Kawabata deliberately adopted is implied even in the title of his lecture, with the use of the Japanese particle *no* (literally "of") linking "Myself" and "Beautiful Japan." One way of reading it is "myself as a part of beautiful Japan," the *no* indicating the relationship of the noun following it to the noun preceding it as one of possession or attachment. It can also be understood as "beautiful Japan and myself," the particle in this case linking the two nouns in apposition, which is how they appear in the English title of Kawabata's lecture as translated by Professor Edward Seidensticker, one of the most eminent American specialists in Japanese literature. His expert translation - "Japan, the beautiful, *and* myself" - is that of a *traduttore* (translator) and in no way a *traditore* (traitor).

Under that title Kawabata talked about a unique kind of mysticism which is found not only in Japanese thought but also more widely in Oriental philosophy. ...

Oe further developed his lecture as follows.

To tell the truth, however, instead of my compatriot who stood here twenty-six years ago, I feel more spiritual affinity with the Irish poet William Butler Yeats, who was awarded a Nobel Prize for Literature seventy-one years ago when he was about the same age as me. ...

Yeats is the writer in whose wake I would like to follow. I would like to do so for the sake of another nation that has now been "accepted into the comity of nations" not on account of literature or philosophy but for its technology in electronic engineering and its manufacture of motorcars. Also I would like to do so as a citizen of a nation that in recent past was stampeded into "insanity in enthusiasm for destruction" both on its own soil and on that of neighboring nations.

As someone living in present-day Japan and sharing bitter memories of the past, I cannot join Kawabata in saying "Japan, the Beautiful, and Myself." A moment ago I referred to the "vagueness" of the title and content of his lecture. In the rest of my own lecture I would like to use the word "ambiguous," ... It is only in terms of "Japan, the Ambiguous, and Myself" that I can talk about myself. ...

So continued the lecture, Oe described his view of Japan and the Japanese. A keyword is *ambiguity*.

After a hundred and twenty years of modernization since the opening up of the country, contemporary Japan is split between two opposite poles of ambiguity. This ambiguity, which is so powerful and penetrating that it divides both the state and its people, and affects me as a writer like a deep-felt scar, is evident in various ways. The modernization of Japan was oriented toward learning from and imitating the West, yet the country is situated in Asia and has firmly maintained its traditional culture. The ambiguous orientation of Japan drove the country into the position of an invader in Asia, and resulted in its isolation from other Asian nations and not only politically but also socially and culturally. And even in the West, to which its culture was supposedly quite open, it has long remained inscrutable or only partially understood.

Considering that the Japanese particle *no* (literally "of") in the titles of the lectures of Oe and Kawabata had been translated into *and*, but the particle is open to several interpretations, we are able to notice that the relationship between information and a human being should not be treated only with regard to the situation where various kinds of information are acquired by man as his knowledge. The point is that a human being related to information does not signify only a being that will never lose its subsistence through being informed after having obtained various information as knowledge. It is rather doubtful whether a human being in this relation signifies a man in reality, or rather signifies a kind of information which does not subsist in terms of being accepted by man as an object of consideration.

Therefore the relationship between information and a human being implied by the conjunction *and* is very vague. I dare say that it seems possible that information, despite having been primarily our possession, may occupy us before we know it. Losing sight of what we are or who we are in reality, we regard ourselves as something in apposition with conceptual information obtained from outside. If a human being that subsists were to be identified with the information which does not subsist, then the mode of existence of a human being would be changed altogether rather than the totality of a human being disappearing from view.

If so, it must be a result of the ambiguity of a human being which means on one hand a being that is known as a man, as the topic of various information, and on the other hand a man who obtains various information as knowledge. In other words, the old problem concerning knowledge appears here in a different form. Of course, it is not a problem of how to make use of knowledge obtained as information (i.e. the content of cognition). The problem is whether the totality of information that we get about a human being would be finally the same with the totality of a human being in reality.

Now, is there any reason why we should deny the identification of information about a

human being (as a known object) with the human being (as a knowing subject)? It is reported recently that the initial analysis of the sequence of the human genome will be or has been completed. It is easy to say that the knowledge of a human being as an object of scientific consideration (i.e. scientific information about a human being) will increase when the analysis of the human genome is completed. At the same time, on the contrary, is it easy to say that we have sufficient self-cognition to avoid losing the understanding of the human being as a knower not as a known thing? What is in question is whether the human being that is not known as information but known as a knowing subject will remain, as it were, only a residue that is not scientific and not essential. Or rather is it characteristic of the human being to be a knowing subject?

This question occurs necessarily when we try to understand ourselves as one unified entity having two constituents, mind and body. As far as we exist as rational beings, it is characteristic of our minds that they have self-awareness. But our knowledge of ourselves is insufficient. Our degree of self-knowledge varies. Hence, there are various viewpoints from which a human being may be considered. However, it is also insufficient to argue that a machine having a sufficiently complicated structure can replace every function of a human being. In order to agree with this opinion, we have to establish a point at issue for the consideration of the human being as a knower through clarifying and excluding the ambiguity of a human being as a known object (i.e. the information about a human being considered as a known thing) and the human being as a knower (i.e. as one able to be informed and obtain information about things).

3. Is a typewriter a man or a machine?

According to the *Oxford English Dictionary*,⁽³⁾ in the early period (at the end of the nineteenth century), the word *typewriter* not only had the signification of a writing-machine, but also of one who does typewriting, especially as a regular occupation.⁽⁴⁾ It is needless to say that a typewriter does not mean a typist nowadays. There was no confusion at all of a machine with a man in the earlier period. Suppose we make something, a man is the main principle in its construction. A machine is only instrumental, used by man as an instrument. For example, a saw does not saw wood unless somebody uses it as an instrument for sawing.

But in the other case there occurs a matter of grave concern. As a contemporary problem, we are asked whether a surrogate mother can be treated only as an instrumental machine.

As for the Japanese language, the supposed subject for the verb *umu* (bear) is usually a mother. But as for the Latin language, the relationship between *genitor* (one who begets) and *genitus* (one who has been begotten) seems to be between a father and a son. For example, we can find the following words in a Hymn called *Tantum ergo*: "Genitorii Genitoque laus et jubilatio." (Praise and joy to the Father and the Son.) In the myths or religious thoughts expressed in the Greek or Latin language, God as the Father is always considered to be the cause of all things.(5)

Aristotle wrote in his *Generation of Animals (De generatione animalium)*, as follows.

... the male and female principles may be put down first and foremost as origins of generation, the former as containing the efficient cause of generation, the latter the material of it. The most convincing proof of this is drawn from considering how and whence come the semen; for it is out of this that those creatures are formed which are produced in the ordinary course of nature; but we must observe carefully the way in which this semen is secreted from the two sexes, the secretion taking place in them and from them, that they are first principles of generation. For by a male animal we mean that which generates in another, and by a female that which generates in itself; that is why in the macrocosm also, men think of the earth as female and a mother, but address heaven and the sun and other like entities as progenitors and fathers. (6)

According to what Aristotle wrote, he did not say that only a male generates but also that a female generates, so he did not think that only a father brings about the birth of a child. For since he also wrote that it is out of the semen that those creatures are formed which are produced in the ordinary course of nature and that the semen is secreted from the two sexes, it is obvious that he thought that a female too has something generative (usually menstrual blood is signified).

As for the statement that it is different whether a male generates (begets) or a female generates (bears), however, Aristotle thought that creatures are formed out of the semen secreted from the two sexes. In other words, the generation of creatures is a kind of formation. On the one hand, he tried to explain why there is a difference between male and female. The fact that, for example, an unfertilized egg which is laid without any relation to the male will be spoiled and will not become a bird (that is, an embryo has life only potentially), but a fertile egg having a relation to the male will not be spoiled and will become a bird, tells us that the principle of life (the form of the sensitive soul) derives from a male in the case of the generation of animals including humankind.

On the other hand, in the same book Aristotle wrote according to his theory of the rational soul that, although the principle of life as for bodily operations, e.g. feeling or moving, is inherent in the semen, the rational soul is not inherent in it but derives from outside as something divine because rational operations are not physical. According to Aristotle, as far as physical life is concerned, parents bring about the birth of children, but as a rational being a human being is different from other irrational animals. This theory was absorbed into Thomas Aquinas' theory of the human intellect, and interpreted from the viewpoint of the theory of creation in Christian thought.(7)

Recent progress of modern sciences and technologies seems obviously to deny a part of Aristotle's Biology. However, considering that the original meaning of the word "information" is "to give a form to a thing", it is understandable that the generation of animals and other natural things is a kind of formation, i.e. involves giving them a form, because he regarded the process of generation as a kind of information, i.e. a formation of living beings.

In this sense, information does not mean only the formation of cognition, but also the formation of things as a necessary condition for our cognition of beings. The information here mentioned is not obtained from existing things as knowledge about them, but it is a kind of formation of things according to certain information. The genetic information is similar to this. For it is obtained through the analysis of genes as information derived from existing things already informed. Besides, it is also the information that enables us to anticipate the formation of animated things, because they are formed according to the genetic information, and exist.

In the case of childbirth, in what sense does a surrogate mother bear a baby? Genetically there is no relation between a surrogate mother and the child inside her womb. But the uterus cannot be a machine for childbirth however the technology of medical reproduction develops. The process of generation of a human being is a process of the formation of a child, but at the same time it is also that of parents. This self-cognitive process, which is multi-leveled, self-reflective and psychological, cannot be found in any machine.

The self-knowledge of this process, as it were, brings about the psychological relationship between parents and children. It is needless to say that this relationship is much more important than the genetic relation. Besides, though the physical change with conception (impregnation) occurs only in a mother, not only a mother can bear a conception formed through the self-awareness of the psychological relation between parents and children. It is not unusual that, when someone recognizes things and obtains conceptions, he also self-recognizes the process of being a knower. It is because of the elicitation of his own cognitive power that when

man recognizes a thing, he recognizes not only the known thing but also the knower himself.

4. The human being in genome analysis

For a long time since Aristotle, the natural phenomena, as indicated in the common saying, "like father, like son", were accounted for the basis of the theory of form and matter. It is actually quite recently that scientists began to think that the body of a living being is made of cells and a cell itself has a structure. It is known that a human being has 60 trillion cells, and the nucleus in each cell has 46 chromosomes in 23 pairs containing 30 thousand genes.(8) Nowadays it is even widely known that sexual activities are not necessary any more for the multiplication of cells.

Though the problem of what life is, or how different animate and inanimate beings are, still remains for scientists, the mechanism of the transmission of genes from parents to children (i.e. the genetic information) is elucidated rapidly these days. This means that the scientific objective knowledge of known things has increased dramatically. In contrast, however increased this kind of information about bodily parts of a human being is, it remains questionable whether it develops our self-knowledge as the knower who obtains knowledge of a human being as a known object. Nevertheless, if people think that modern scientists develop the analysis of human beings at fantastic speeds, it is because a being called human by scientists is confused with the human being as a knowing subject, isn't it? To the extent that people lose sight of the total being of man, it becomes increasingly difficult to elucidate the human being.

The human genome means the totality of the genetic information about a human being. Human being in this case means an animate being diploid having 23 pairs of chromosomes in each cell nucleus (22 pairs of autosomal chromosomes and 1 pair of sex chromosomes, X-chromosome and Y-chromosome or two X-chromosomes). Therefore, the human genome is concretely the sequence of about 3 billion bases (having a long spiral structure made of four kinds of bases, adenine, thymine, guanine and cytosine) on 24 chromosomes (half parts of 22 pairs of autosomal chromosomes and two kinds of sex chromosomes).

It is said that a human being is made of 60 trillion cells, all of which are derived from a division of the first one cell. Then, each of the cells has the same genetic information that the first one had, that is, the same DNA of the same base sequence. And also all human beings have the same genetic information (i.e. the same base sequence) as other human beings,

although there are slight individual differences.

Searching the base sequence as a content of human genetic information and discovering slight differences, the parentage may be determined or the vulnerability to diseases can be checked. It becomes evident now that the difference between so-called human races is only between individuals, and that genetic information is but a concrete sequence of four kinds of bases in DNA, and not an abstract idea.

On the other hand, according to the theory of form and matter, which had been common since Aristotle before cell theory was propounded, form is not visible in itself. Form makes something actual out of matter which is potential, but the figure or the shape of the thing formed as a result of the operation of form is not the form above mentioned. Therefore, if we are allowed to call a being composed of soul (form) and body (matter) a *man* or a human being, it is recognized from a different point of view where we call a being informed through certain genetic information *human* as an animal among the primates. Although both beings are in themselves the same, as far as they are recognized from different points of view, the two can be called by different names. In this sense, a human being (*hito* in Japanese) is not a man (*ningen* in Japanese).

We take it for granted that we can say that a human being (*hito*) is not a man (*ningen* or the human being), only because we consider the same being from different viewpoints. But if all connotations of *man* do not include those of *human being*, some part of the former does not belong to the latter. What could it be? It could be a mode of existing of the human being as a knower. When scientists recognize a being called human, they cannot deny that it exists as a known but it is unnecessary for them that a being called human exists as a knower.

From human genetic information downwards, diverse kinds of information about human beings are in full flood. If we try to redefine what a human being is through the images of it presupposed in various kinds of information, a question, instead of an answer, will occur: How can we define a total human being? Actually, unless the total human being had been known in some way, we could not notice that diverse fragmental information and knowledge pertaining to human beings. If it is certain that the connotation of the human as a knowing subject is contained in our understanding of what is meant by a total human being, it is necessary to regard the being not as a known object but as a knowing subject. It is necessary to understand that what cannot be a known object cannot be known as a known object.

5. Conclusion

If a science of human beings is based on knowledge of the human being as a known object, how could the human being as a knowing subject be considered? At least, an above-mentioned science of a human being as a system of accumulated knowledge of objects cannot be available. If we are allowed to call the other one a humane science, it is expected that the human being as a knowing subject will be considered from a different point of view than in the above-mentioned science.

If categories of scientific knowledge are distinguished from each other because of a difference in the proper viewpoint of each science, it is necessary, for example, to understand that the theological consideration, if it were a science, is of the divine not as a known object but as a knowing subject. Generally speaking, it is possible to understand totally a being as a knower, if and only if we consider the being not as a known object but as a knowing subject. As far as a humane science is expected to be a science that belongs to this category, the proper viewpoint would have been established for the consideration of the human being as a subject of the science.

Notes:

- 1) Kenzaburo Oe, *Japan, the Ambiguous, and Myself*. (tr. by H.Yamanouchi). *The Nobel Prize Speech and Other Lectures*. Kodansha International, 1995.
- 2) Yasunari Kawabata, *Japan, the Beautiful, and Myself*. (tr. by E.G.Seidensticker). Kodansha, 1969.
- 3) *Oxford English Dictionary*, Second Edition, Oxford, 1991.
- 4) *Kenkyusha's New English-Japanese Dictionary*, 5th edition, Kenkyusha, 1980.
- 5) The Roman God Jupiter was identified with Zeus in Greek myth. Zeus was called the Father of gods and man.
- 6) Aristoteles, *De generatione animalium*. (in *Aristotelis Opera*, (ed.) Bekker, I. 1831). *Generation of animals*, Book 1, chap. 2. (*The complete works of Aristotle*, revised Oxford translation, edited by Jonathan Barnes, vol.1(1984) p.1112).
- 7) Hidemi Mizuta, *A Study of Thomas Aquinas' Theory of the Human Intellect*, Sobunsha, 1998.
- 8) Cells were first discovered in 1665 by Robert Hooke. Afterwards, cell theory was first propounded by Matthias Schleiden and Theodore Schwann in the nineteenth century. In April 2003, it was declared that the project of analyzing the human genome was completed.