

# REDISCOVERY OF AN EXISTENTIAL-CULTURAL-ETHICAL HORIZON TO UNDERSTAND THE MEANINGS OF ROBOTS, AI AND AUTONOMOUS CARS WE ENCOUNTER IN THE LIFE IN THE INFORMATION ERA IN JAPAN, SOUTHEAST ASIA AND THE 'WEST'

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## **ABSTRACT**

In this paper I will make an attempt to find (rediscover) the potentially broader or alternative horizon to understand the meanings of robots, AI and autonomous cars which we encounter in the life in the information era in Japan, Southeast Asia and the 'West.' In this case, the broader or alternative (horizon) refers to the situations which would be beyond the narrowly interpreted views on human life under the strong influence of techno-determinism, Cartesian dualism of body and mind, the Western presupposition to put an emphasis on the limited aspects of human existence (i.e. rationality, intelligence separated from our existence in time, phronesis, bodily existence and vulnerabilities of life). I will make this attempt mainly by focusing on my researches performed in the past decade in Japan, Southeast Asia and some of the Western countries and also by examining the related discussions on this kind of encounter of technologies and our existence. The point in this paper will be that robots, AI and others are found to belong to the realm of technologies, the logical thinking and objective scientific methodologies and also to the realm of existence including the 'profound' relation between the logos and awareness of finitude of life.

**KEYWORDS:** existential horizon, robots, AI, autonomous car, meanings of life and death.

## **1. INTRODUCTION**

In this paper I will make an attempt to find (rediscover) the potentially broader or alternative horizon to understand the meanings of robots, AI and autonomous cars which we encounter in the life in the information era in Japan, Southeast Asia and the 'West' beyond the limited perspectives combined with the techno-determinism, Cartesian dualism of body and mind and the Western presuppositions on rationality, intelligence and reasoning based on logical languages as the first principles for human existence.

I will make this attempt mainly by focusing on the following points. 1) First, we will see the research findings which I gained by my researches performed in the past decade in Japan, Southeast Asia and some of the Western countries. Through this analysis we will see that people in Japan, Asia and the West tend to understand or evaluate the meanings of life by depending on their existential-cultural-ethical perspectives on 'what is a good-virtuous life?' And our

research data show that these ethical and existential ways of thinking and feeling about the meanings of our life in the modern, complicated and informatized environments are found to be correlated with people's views on the meanings of robots, AI and self-driving cars in our life.

This suggests us that the robots, AI and self-driving cars would enter the inside of our life through a pathway or in-between place where some sort of important mediating procedures might work. To put this in another way, the interpretation of the findings of my research, i.e. the correlation between people's views on life and their views on the technological products, would presuppose the presence of this kind of pathway to enable two different kinds of existence, one related to the humans beings and another related to the technological products (and the scientific/ logical reasoning/ rational thinking) would gather together.

2) Secondly, I will examine the cultural and existential background lying behind these research data. In spite of the general belief that Japanese people of today tend to show their strong interest in the material aspects such as the material wealth, the welfare associated with material happiness, degree of one's social reputation as measured by educational background and career advancement, the ranking of international competitiveness based on GDP or consumption of cars or other commodities, what I have found in my researches is that Japanese people's minds of today are still occupied by various sorts of cultural-existential views on this life with cultural-historical backgrounds. These backgrounds seem to be associated with the history of Japanese interpreting of Confucianism into the direction of 'internalization,' with *Kokugaku* (indigenous cultural studies on the Japanese culture and language in the Tokugawa Era focusing on Japanese 'inner and fluid' cultural traditions in contrast to Chinese formalized and stable traditions), *Shinto*, Buddhism or the language improvement such as *Genbunicchi* Movement in the Meiji Era (= i.e. the movement in the Meiji 20s (1887–96) for unification of the written and spoken language needed for modernized internalized world) and so on.

3) Thirdly, I will examine 'why can this kind of cultural and ethical meanings be found in other Asian countries and even in some Western countries?' What I have found is that people in other Asian countries and some Western countries tend to show some sort of sympathy for the views on the meanings of 'requiem service for broken tools or robots' or 'beauty of our life or the world through its transience (*Mononoaware*)' and other views which seem to be related with Japanese cultural traditions. I will try to interpret this phenomenon, the potential cultural-existential meanings in the minds of Asian people and Western people, by examining the related discussions by various authors.

## **2. JAPANESE PEOPLE AND EAST ASIAN PEOPLE HAVE POTENTIAL CULTURAL-ETHICAL ATTITUDES TOWARD THE PROBLEMS IN THE MODERNIZED SOCIETY**

### **2.1. Backgrounds of Japanese cultural and ethical views on life**

In this section, we want to see the main points of my research findings and their potential implications. In order to do so, we need some preliminary explanation or interpretation on the characteristics of Japanese cultural and ethical views on life.

The important findings through my researches (as shown in Table 1) is that Japanese people of today are found to show a strong or fairly strong empathy with the views on life in the modernized and informatized environments, i.e. the views reflecting their cultural and existential experiences in the realm of the world which remains being a kind of 'inner world' or 'intermediate world.' In my view, this 'inner world' or 'intermediate world' is mediating two

aspects of our life, i.e. the aspect of life associated with the logos, scientific understanding, technological procedures, the objective observation of the various problems in the society and the realistic approach to the those problems and so on and the aspect of life associated with the cultural and ethical evaluation on people's life.

For example, according to one of my researches in Japan (the one performed in 2020 which is in the process of analysis at this moment), people tend to show the sympathy with the view, 'The value of small money such as 10 Yen or 100 Yen depends on how you use the money and in this sense the small money symbolizes your personality reflected in its use.' And the degree of sympathy with this view is found to be correlated with the degree of interest in or sympathy with the other views including the views related with the meanings of job, the meaning of sharing struggles with colleagues in the same workplace, the sympathy with victims in the accidents or disasters.

And this means that various matters are thought to be located in some place in people's mind and they consist of a sort of horizon to make various matters be associated with each other, i.e. those matters coming from various aspects of life (business, human relationship, sympathy with other people's tragic situations, encountering with the technological products and so on). In this sense, this horizon is related to a wholeness of our life. The meaning of 'ethical' or 'cultural' is thought to be related to this kind of wholeness of life.

This doesn't necessarily mean that Japanese people of today or in the modern era are not/have not been interested in the material aspects of life. But rather, the important point about this is that the material wealth is thought to have its own ethical, virtuous or cultural dimension along with its realistic and material aspect. To put this in a more simple form, Japanese cultural-existential attitudes are characterized by its plurality. The money has its objective meanings and its 'inner' meanings. The social systems have their own formalized, standardized and rule-based meanings and their ethical aspects. The AI machine for diagnosis of latent disease has its own scientific/ practical meanings and at the same time it makes people feel some sort of uncomfortableness as a result of the transformation of their existence from 'Wer' (who) to 'Was' (what) (concerning Wer and Was in the informatized environments, see Capurro et al., 2013).

This kind of plurality might not be limited to Japanese culture(s). But it seems that Japanese cultural traditions are /have been very sensitive to this plurality and in this sense the awareness of this plurality seems to be an important part of self-identity for Japanese people.

The discussions by various authors seem to reflect or influence this point. The eyesight of Kitaro Nishida, which is thought to reflect or influence Japanese views in general, seems to point directly to the intermediary place that works between subjectivity and objectivity. And some scholars in the research area on Japanese language pay attention on the emerging place between *Shi* (noun) and *Ji* (suffix). This emerging place as somewhere in-between would be also the one enabling people to reconsider the relation between 'the logic and the imagination,' 'the subject and the object' or 'the logic of subject and the logic of predicate' in a more broad way. (The logic of predicate is a kind of logic or ways of thinking based on association of matters, words or imaginations.)

The use of expressions by adjectives can be found to be located in this intermediate place. For example: Matsuri (festivals) no (of) koro (season, time) ha ( at or is) ito (very) okashi (fun). (The season of festivals is very fun.) According to Fukada, who is citing the interpretation of Japanese linguist Motoki Tokieda, 'fun' simultaneously refers to the state of the subject and the state of the object. The logic of predicate seems to be related to the work of *Shi* (noun) and *Ji* (suffix) in

Japanese language characterized by this kind of mediating work. If we follow Akira Mikami's explanation (Mikami 1960 :118), 'ha' in the sentence 'Zou ha hana ga nagai' is not a grammatical copula such as 'is' but shows a role to present a theme regarding Zou (elephant) or a theme including Zou as part of theme. This is another case of Japanese plural ways of thinking. In the case of disasters, when we say, 'the disasters are due to the punishment from heaven,' similar things happen. 'Disaster's is the subject which dominates a certain line of topic such as 'this disaster happened by the work of strain of Pacific Plate.' At the same time, 'Disaster' is the topic which people can talk about following the cultural or ethical association. The views in Table 1 seem to be similar in this sense, i.e. the combination of 'the concrete, objective, descriptive aspect (expression) of the matter' and 'the imaginative, associative and allegorical aspect (expression) of the matter.'

## 2.2. Japanese views on life

The following table (Table 1) shows that Japanese people tend to think about the meanings of the matters and things they face in the everyday life in the informatizing environments by following some sort of existential-cultural-ethical perspectives which seem to reflect their cultural-historical traditions. (The views used in these researches are adopted from examinations through (a) the qualitative researches on the characteristics of Japanese cultures and values based on discussions by authors such as Kitaro Nishida, Tetsuro Watsuji, Hideo Kobayashi, Daisetsu Suzuki, Motoki Tokieda, Bin Kimura, Yujiro Nakamura and others, (b) the findings of my depth interviews with Japanese and Asian people, (c) a content analysis on newspaper reports and magazine reports about Japanese attitudes toward disasters and wars and (d) the discussions with some Western scholars such as Rafael Capurro.)

These data in this table show that people in Japan are still under the strong influence by the existential-cultural-ethical perspectives which seem to derive from Buddhism, Confucianism, Taoism, *Shinto* (in Japan), *Kokugaku*. In fact, as the table shows, the percentage of the respondents with the positive attitudes toward the views (measured by the degree of acceptance of or sympathy with the contents of these views) is surprisingly high in most of the cases. For example, the percentage of people showing the positive attitudes toward the view, 'People will become corrupt if they become too rich' is 75.7% (2018HG research) and 83.7% (1995G research). Similarly, the majority of Japanese people (respondents) show sympathy for various ethical and cultural views on 'destiny,' 'natural disasters as warning from heaven,' 'denial of natural science' and others.

But this doesn't necessarily mean that Japanese people live (only) in a traditional, 'feudalistic' or even 'superstitious spiritual' world. My interpretation is that Japanese mind consists of two different but/and coexisting aspects in some ways (as I suggested above), i.e. the combination of 'objective and realistic world views' and 'ethical, existential or "existential categories based" world views.' 'Existential categories' is the term used to explain Heidegger's explanation about the difference between two ways of understanding, knowledge based on metaphysical or scientific categories (or a priori concepts) and knowing or being awareness based on existential categories (these are a priori too by Heidegger). (We can get a useful hint to this point by Michael Gelven's critical reviews on Heidegger's *Being and Time* (Gelven, 1970).)

And in addition to this finding, we have found that people's attitudes toward the meaning of robots, AI and others are found to be (fairly) strongly correlated with these cultural and ethical views in the minds of Japanese people today.

### 2.3. Finding of cultural-existential views on life in Japan

The following table (Table 1) shows that, as I suggested above, the ‘inner’ part of Japanese minds today is still filled with sympathy for the existential and cultural views on the matters they face in the concrete environments, i.e. the views reflecting or determining the existential and cultural interpretation of those matters.

And this (the experience corresponding with the cultural, existential views) seems to also reflect the ‘dual’ structures (aspects) of the world itself and people’s inner structure(s) being associated with this (experience), as suggested by Valera, Merleau-Ponty, Jyunichi Murata and others.

Our experiences in this world are supported by two different but internally corresponding aspects. When we see the blue sky, this experience of blue colour depends on the material aspects which reflect the laws of science. But the experience of ‘blue’ of the sky depends on another aspect, i.e. our interpretation of the matter or our position in the world including material aspect. The brown colour and yellow colour are the same in regard to the spectral component of light but they become a different colour through arrangement of light and the object or the positional relationship between illumination light and illuminated object.

In the case of social matters, this kind of dual situations might be observed too. This is what Heidegger, Husserl and Merleau-Ponty insisted on in their writings. And some Japanese authors such as Kitaro Nshida, Tetsujiro Watsuji and others also discuss similar points.

Table 1. People’s sympathy for values deriving from their shared traditional cultural-existential-ethical experiences in Japan, Asian countries and the West.

	1995G (Japan)	2000G (Japan)	2016 HG (Japan)	2018 HG (Japan)	2003T (Germany) (N=300)	2018 Indonesia (N=250)	2017 Vietnam (N=300)
Distance from nature	73.6%	-	68.9	69.6	83.1%	82.4	91.0
Honest poverty	83.7	81.5	75.9	75.7	68.7	81.6	87.0
Destiny	84.4	79.0	76.0	75.5	35.7	85.6	82.3
Denial of natural science	88.5	88.3	80.2	82.9	60.6	89.2	96.4
Criticism of selfishness	85.5	88.3	75.6	77.5	89.9	80.8	89.0
Powerlessness	71.9	64.8	71.3	72.3	57.5	-	-
Superficial cheerfulness	73.3	65.6	71.3	72.8	40.1	78.8	86.4
Belief in kindness	-	68.1	65.2	68.7	91.5	86.4	94.6
Scourge of Heaven	62.7	49.5	-	-	-	-	-
Natural disasters as warning from heaven	-	-	56.4	58.8	-	93.6	92.7
Sensitivity to beauty through transience ( <i>Mononoaware</i> )	-	-	37.2	48.5	-	56.8	69.3

1) Table1 shows the percentages of the respondents who said ‘agree or somewhat agree’ to various views or statements indicating people’s inner values and also their critical attitudes toward phenomena or matters they face in their everyday life. These statements are such as: “Within our modern lifestyles,

people have become too distant from nature”(Distance from nature); “People will become corrupt if they become too rich”(Honest poverty); “People have a certain destiny, no matter what form it takes”(Destiny); “In our world, there are a number of things that cannot be explained by science”(Denial of natural science); “There are too many people in developed countries (or Japan, Indonesia, Vietnam) today who are concerned only with themselves” (Criticism of selfishness ); “In today’s world, people are helpless if they are (individually) themselves” (Powerlessness); “In today’s world, what seems cheerful and enjoyable is really only superficial” (Superficial cheerfulness); “Doing your best for other people is good for you” (Belief in kindness); “The frequent occurrence of natural disasters is due to scourge of Heaven” (Scourge of Heaven); “Occurrences of huge and disastrous natural disasters can be interpreted as warnings from heaven to people”(Natural disasters as warning from heaven); “I can sometimes feel that the fireworks or the glow of a firefly in the summer are beautiful because they are transient or short-lived”(sensitivity to beauty through transience(*Mononoaware*)). 2) The data which we examine in this paper are collected from researches as follows. ‘1995 G’= research conducted in Tokyo in 1995(587 respondents collected through random sampling of over 20 years old). ‘2000G’= research done in Tokyo metropolitan area in 2000(611 respondents collected through random sampling of over 20 years old). ‘2016HG’ is a research done in Japan in December, 2016 for 600 respondents of age 25-44 men and women living in Fukushima, Miyagi and Iwate Prefectures (quota sampling was used to design this survey, i.e. the ratios of gender and age were quoted from the official statistical report of the Japanese government about the Internet users in 2010 in Japan). ‘2018HG’ is done in Japan in December, 2018 for 600 respondents with age 25-44, similarly as in the case of 2016HG. ‘2003 T’= research in 2003 in Germany with 300 students at the University of Tübingen as respondents. ‘2008 Indonesia’ =research in 2008 in Indonesia (250 respondents of age 25-44 collected with quota sampling depending on statistics from nationwide data on the ratios of gender and age based on the official statistical report in Indonesia). ‘2017 Vietnam’=research done in 2017 in Ha Noi and Ho Chi Minh City in Vietnam (300 respondents of age 25-44 collected with quota sampling depending on the ratios of gender and age in Ha Noi and Ho Chi Minh City based on the official statistical report in Vietnam).

### **3. UNITY OF INNER VALUES AND THE CRITERIA TO EVALUATE THE MEANINGS OF MATTERS SUCH AS ROBOTS, AI AND SELF-DRIVING CARS IN THE LIFE IN THE INFORMATIZED ENVIRONMENTS**

#### **3.1. Relation between views on life and views on robots, AI in Japan**

One of the most important points we can’t miss when we interpret these findings in Table 1 is that these views seem to play two different kinds of roles simultaneously. Clearly these views (or the positive attitudes toward these views) are some sort of internalized values such as ‘purity of minds leading to preference of simple and virtuous life’ or ‘pursuit to sincerity’ and so on. But on the other hand, these inner values seem to play a critical standard with which people can evaluate the meanings of phenomena or matters they encounter in their everyday life simultaneously. Table 2 and Table 3 show us that this is not a mere speculation.

As these tables (1, 2, 3) show, what we have found is that there is a kind of horizon in which ‘people’s views on meanings of life as a whole,’ ‘their attitudes toward values in the society,’ ‘their sensitivity to others’ death and sacrifice’ and ‘their understanding of or interpretation on the meanings of robots or autonomous cars’ can come together or can become interrelated with one another. In a way, what we have found is the phenomena suggesting a surprising aspect of world, i.e. life, death, care for others, expectation or anxiety for robots would merge into an oneness.

Table 2. Correlations between Japanese people’s views on robots and their ethical, existential and cultural views on life (Data: 2016HG).

	Problems of care robots	Rights for robot	Care robot for children	Auto-nomous car’s judgment for life	Responsibility for autonomous car	Better safety by autonomous car
Distance from nature	<b>.336**</b>	<b>.144**</b>	<b>.106**</b>	<b>.346**</b>	<b>.338*</b>	<b>.174**</b>
Honest poverty	<b>.326**</b>	.051	<b>.084*</b>	<b>.391**</b>	<b>.439*</b>	<b>.217**</b>
Destiny	<b>.300**</b>	.039	<b>.106**</b>	<b>.326**</b>	<b>.333*</b>	<b>.200**</b>
Denial of natural science	<b>.348**</b>	.049	.078	<b>.405**</b>	<b>.409*</b>	<b>.216*</b>
Criticism of selfishness	<b>.204**</b>	.005	<b>.088*</b>	<b>.294**</b>	<b>.289*</b>	<b>.197**</b>
Powerlessness	<b>.211**</b>	.073	<b>.106**</b>	<b>.213**</b>	<b>.184**</b>	<b>.182**</b>
Superficial cheerfulness	<b>.274**</b>	<b>.168**</b>	<b>.159**</b>	<b>.330**</b>	<b>.336**</b>	<b>.188**</b>
Belief in kindness	<b>.242**</b>	<b>.125**</b>	<b>.092*</b>	<b>.226**</b>	<b>.224**</b>	<b>.148**</b>
Natural disasters as warning from heaven	<b>.267**</b>	<b>.235**</b>	<b>.094*</b>	<b>.286**</b>	<b>.284*</b>	.021
Sensitivity to beauty through transience ( <i>Mononoaware</i> )	<b>.285**</b>	<b>.195**</b>	<b>.131**</b>	<b>.273**</b>	<b>.275*</b>	<b>.220**</b>

Notes on the Table: 1) This table shows the correlation between ‘the views on robots and self-driving cars’ and ‘the views on Japanese “inner minds” including *Mononoaware*.’ The statements showing the content of the views on robots and self-driving cars are: “To leave handicapped or elderly persons in the care of robots worsens isolation of them from societies even though this idea seems to be appropriate at first glance”(Problems of care robots); “Robots should be given similar rights in the future as fetuses or patients in a coma without consciousness or awareness”(Rights for robot); “To leave children in the care of robots would be better than to leave them alone without any care” (Care robot for children); “Although automobile driving robot by artificial intelligence seems to be convenient, considering to leave judgment on life or death to the machine, there is a problem of use without much consideration” (Autonomous car’s judgment for life); “The autonomous cars (self-driving cars) by artificial intelligence seem to be convenient, but there are problems with easy use, since it is impossible to ignore the problem of responsibility associated with driving the machine”(Responsibility for autonomous car); “Automobile driven by robots with artificial intelligence will bring about a better situation in our society, because it increases safety compared to human driving”(Better safety by autonomous car).

## 7. Monitoring and Control of AI Artifacts

Table 3 Correlations between sharing pity for others' death/ sacrifice and various views on robots/autonomous car and the ethical views in Japan. (Data: 2016HG)

	Problems of care robots	Virtual creatures	Care robot For children	Auto-nomous car's judgment for life	Responsibility for autonomous car	Honest poverty	Destiny	Natural disasters as warning from heaven
Flowers for lament	.309**	.145**	.176**	.182**	.171**	.162**	.218**	.265**
Being beautiful through transience	.285**	.277**	.131**	.273**	.275**	.268**	.296**	.247**
Sacrifice	.344**	.293**	.100*	.329**	.351**	.351**	.414**	.243**
Lonely death	.291**	.256**	.169**	.277**	.216**	.302**	.326**	.223**
Astroboy's final episode	.230**	.271**	.248**	.152**	.198**	.184**	.213**	.298**

1) The figures of the table show the percentage of the respondents who responded to each view affirmatively or negatively.

2)'Virtual creatures' = 'It is very natural when children sympathy or some kind of affection towards virtual creatures like Tamagotchi.' 3) 'Flowers for lament' shows 'I can imagine clearly the figures of the victims or their family when I see the flowers for lament or sorrow at the traffic accidents or other accidents.' : Similarly, 'I can sometimes feel that the fireworks or the glow of a firefly in the summer are beautiful because they are transient or short-lived.' (being beautiful through transience); 'I sometimes feel that I have to think more deeply about the important meanings of life when I hear the stories of persons who saved others at the cost of their own life in natural disasters and similar crises.' (sacrifice); 'I sometimes feel that everyone must have had their own meaningful days even if he/she died alone and his/her death is called a case of 'lonely death' in the newspapers.' (lonely death); 'I am moved when I know Astroboy's final episode as self-sacrifice for saving the earth.' (Astroboy's final episode).

### 3.2. Potential Existential horizon in Southeast Asia and the West

Table 4 Correlations between people's views on robots and the ethical and cultural views on life (including *Mononoaware*-views) in Indonesia (Data: 2018 Indonesia)

	Problems of care robots	Virtual creatures	Right for robots	Affection for robots	To prevent maltreatment for robots
Flowers for lament	.158*	.160*	.181**	.223**	.186**
Sacrifice	.026	.036	-.128*	-.074	-.012
Being beautiful through transience ( <i>Mononoaware</i> )	.205**	.291**	.265**	.317**	.206**
Awareness of importance of life through thinking about the finitude of life	.059	.039	.169**	.067	.011

1) \*\*= $p < 0.01$ , \*= $p < 0.05$ , without \*\* or \*=ns= non (statistically) significant

2) 'Awareness of importance of life through thinking about the finitude of life' shows 'When I am aware of the finitude of life and its transience, I feel I need to spend every day meaningful.' 3) 'Affection for robots' = 'Robots are expected to be a subject of affection or consideration in the future just as the earth, mountains, rivers are treated so, even though they have no life.' 'To prevent maltreatment for robots' = 'To provide robots with capability of expression of their emotions such as pains would be good in order to prevent (avoid) cruelty or maltreatment to them.' Concerning the other views on robots, see the note of Table 2 and 3.

As Table 1 and 4 show, the potential presence of this kind of horizon we have examined in the case of Japanese research data seems to be found in the cases of Southeast Asia data and the West (the data of researches in the West are not enough at this moment, so we have to carefully



deal with these data). (The research data in Germany, Indonesia and Vietnam are shown in Table 1. This is due to the limited space and also for comparison with Japanese data.) (The research in Sweden, in the process of analysis now, shows that 60.5% of respondents affirmed their sympathy with *Mononoaware-view*.)

#### **4. REDISCOVERY OF MEANINGS OF LIFE TO BE RELATED TO HUMAN VULNERABILITIES IN THE PLACE OF HUMAN HEALTH CARE**

##### **4.1. Care seen from the perspective associated with human existence**

What we have found (rediscovered) through examining of the meanings of data of the tables shown above is the fact that various meanings of things and matters are interrelated with one another. This kind of finding seems to be able to be related with Heidegger's idea of *Bewandtnis* (involvement) or Kitaro Nishida's idea of *Basho* (place to connect the subject, the object, perception, thinking and others in a form of undifferentiated wholeness). The important matter of this point is that this kind of ethical or existential link of meanings is quite different from the mechanical linkage of machine parts or linkage grounded on some sort of scientific causal relations.

And if some sort of artificial machines can play a role in human environments, it seems that they need to enter this kind of linkage based on the human existence in some ways.

Or in some cases machines need some sort of new *Bewandtnis* (involvement) or *Basho* in order to do their role properly as they are designed, e.g. *Bewandtnis* related with the practice as care.

In this sense, the reports by the experts (Toombs, Todres and others) in health care or nursing under the influence of phenomenologists such as Husserl, Heidegger, Merleau-Ponty, H. Dreyfus are very suggestive. In my interpretation, what they have been trying is to bring about a new kind of views on human existence into the place of medical practice (hospital and so on) which is usually under the control of scientific determination and classification by the medical physicians. These views are expected to be more the patient-led ones or open to interpretation of illness for the patient and the care-giver. In this sense, people in the Western live in an aspect of the world where such ideas as 'care with sharing the vulnerabilities,' 'finitude of life' or 'life on a journey' would mean a lot of things. These terms and concepts are proposed by these authors showing interest in phenomenology.

##### **4.2. The phenomena in the place between 'the object and the subject' and 'the logic and the meaning'**

We know that the restrained or disabled work of mind and body shown in the case of various symptoms such as autism, schizophrenia, agnosia, aphasia and others would be observed in somewhere in-between, i.e. the place between 'the objective "outer" area of our world and the subjective "inner" area of our experience,' 'the syntagmatic linguistic area and the pragmatic linguistic area,' 'the subject and the predicate,' *Shi* (nouns) and *Ji* (suffix or dependent word),' 'the objective meanings of the object in the perception field and the experienced meanings of the object in the perception field (as in the case of optical illusion),' as suggested by Merleau-Ponty, Bin Kimura and others. For example, in the case of aphasia examined by Shigeyuki Kumagai, Japanese pedagogist, the children with autism have difficulty with using Japanese *Ji* (suffix such

as *ga*, *ha*, *wo* and others) to complete a sentence to portray a scene such as: a little girl is bullied by a boy in the playground of a kindergarten.

In the phenomena related to a 'sense of agency,' we know that the states or the modes of human existence can come together with different states or modes of existence of things in a certain kind of place. This place reflects or determines the relationships among such matters as 'human expectancy or intentionality on a conscious level,' 'human expectancy or intentionality on an unconscious level,' 'the mechanism of transmitting information needed to move the human motor systems from the interior to the exterior,' 'the mechanism of receiving information needed to check the expected response as a result of the operation of the muscles from the exterior to the interior' and so on. This is another case that shows: we need to carefully see the in-between place.

The in-between place suggests us a lot of things. The mechanical matters or the objective things can 'exist' in various areas. It can have meanings as 'realization' of rules or principles. They can work within mechanical structures such as steam engines, locomotives, cars or robots. And they can enter the in-between area where the mechanical matters, the objective things, tools or machines can interact with human body structure, nervous systems and human expectancy and human sense of identification. And in the case of self-driving cars, we have to presuppose the material or technological conditions of those self-driving cars. But the self-driving car itself can't enter the realm of our life when its material aspect is a mere material. This materiality starts to have meanings when combined with 'good ethical questions' which are related to the question on our own existence too. As we have seen, an amount of small money starts to have an ethical meaning on a certain horizon. The money is the 'tool' to satisfy human desires. But this desire would enter our human life when it is combined with our views on life. Human desires are associated with a lot of things. In the case of our research findings, how to use the small money symbolizes the whole range of our life. Autonomous cars are the similar ones too.

## 5. CONCLUSION

What we have found through our research data includes a lot of matters and their interpretation which would be possible or visible through a sort of circuit or pathway we mentioned above. This circuit or pathway includes the materiality of things (tools) and our potential anticipation or imagination in regard to the relation with those material matters or things. One of the important findings that we have found through our research data is that some aspects of human finitude or vulnerabilities such as sacrifice, accidents, unavoidable encountering with disasters or accidents and our sensitivity to these matters are correlated to people's interpretation on the meanings of technological products such as robots, AI or self-driving cars in their life. Bin Kimura and Heidegger suggest us that our ways of existence are related to the oneness of truth-ness. (See also Tamura, 2012.) The truth or the fact is characterized by its oneness or uniqueness as shown in the case of the law of contradiction saying that a proposition can't be both true and false. Bin Kimura says, citing Nietzsche and Heidegger, that this is related to our way of understanding of existence or our existence itself. The confusion of Being and Becoming (Werden and Sein ) is related to the oneness of truth-ness in some ways. In this sense, *Mononoaware*, Japanese sensitivity to beauty of nature or significance of human life through awareness of finitude (transience) of the world and human life, might be a way of thinking and feeling which leads us to the in-between state of Being and Becoming.

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