A View of Risk from the Perspective of Ethics

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Abstract

Two Approaches in Risk discussions have come out in these days. The First is interested in the objective sides of things, supposing a *20th century Risk Type* characterized by *Determined*, as explained after. Opposed to this, the Second has appeared, paying attention to communications between different social belongings, in the face of a *21st century Risk Type* characterized by *Undetermined*. As a matter of fact, we are now faced with multiple conflicts, such as two approaches, different communications, or furthermore, even different Ideologies that try to resolve conflicts. Here, a new Perspective of Ethics that surpasses the order of Ideology is requested. This perspective, characterized by comparison of both sides concerned, aims to no *Agreement* in conflicts but their *Movements* themselves. In this article, a new Model derived from this perspective is to be proposed. I hope all readers, whether professionals or non-professionals, to raise *Self-transformation* by themselves through this article.

Introduction

The word Risk itself has wide images such as navigation, rocks, stranding, gambling, profits, debts, insurance, and so on. Things (or Events) concerned with humans have in general Two Sides, that is to say, the Objective side of things themselves and the both Subjective and Communicative side of human Meanings [110]

According to these Two Sides, Two Approaches in Risk discussions have come out in these days. The First is interested in the objective sides of things, and supposes a '20th century Risk Type' characterized by *Determined*, as explained after. Opposed to this, the Second has appeared, paying attention to communications between different social belongings, in the face of a *21st century Risk Type* characterized by *Undetermined*. As a matter of fact, we are now faced with multiple conflicts, such as two approaches, different communications, or furthermore, even different Ideologies that try to resolve conflicts. Here, a new Perspective of Ethics that surpasses the order of ideology is requested. This perspective, characterized by comparison of both sides concerned, aims to no *Agreement* in conflict but its *Movements* themselves. In this article, a new Model derived from this perspective is to be proposed. I hope all readers, whether professionals or non-professionals, to raise *Self-transformation* by themselves through this article.

1. Risk as the objective side of Things

The First Approach to Risk is focused on the dangerous properties of Things. The origin of this approach was some countermeasures taken to compensate mine disasters in the 19th century. Since then, this approach had been established in welfare states through the 20th century, and today turns to the

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[110] Philosophically thinking, Things or Events are particular marked sides of *phenomenal distinctions* as objects observed. This phenomenal distinction consists of Two Dimensions: the *Real Distinction* and the *Meaning Distinction*. The real distinction is supposed to structurally exist through comparisons among different distinctions indicated from different perspectives. It is such *Structural Isomorphism* between *real distinction-correlations* and *phenomenal distinction-correlation*s that is the basis of phenomenal reality, namely, truth. On the other hand, phenomenal distinctions are interpreted through *meaning-distinctions*. And it is this interpretation that is the origin of ideology. Ideological diversity is inevitable for humans who cannot escape from self-interpretation.

standard risk theory [111]. This theory supposes, as it were, a *20th century Risk Type*. To systematically characterize this type, we introduce the following framework of *Meaning*.

Every Thing has a particular Distinction (or Difference) in encountering other things as well as humans [112]. Here Two Affairs are implied. The First is that one distinction is indicated by another distinction: *Indicate/be indicated relation*, that is to say, the Meaning itself [113]. The Second is that one distinction has both the real *Marked* side and the potentially *Unmarked* side [114]. Therefore, we come to have a framework of Meaning with Two Axes: *Definiteness/Re-definiteness* and *Reality/Potentiality*. Furthermore, through these two, Four Quadrants turn out as follows: ① Exterior-oriented, ② Interior-oriented, ③ Other-oriented, and ④ Self-oriented (**See Figure 1**).

In addition, this framework of Meaning repeatedly appears in various contexts : for example, ① Spatiality, ② Temporality, ③ Sociality, ④ Reflectivity, in the context of observation ; and ① Practicality, ② Communality, ③ Integration, ④ Transcendence, in that of ideology. The meanings of these Four Quadrants have multiple variants, yet the correlated structure of the set of four remains isomorphic in each context.

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[111] Before coming of the concept of Risk, there were some substantial and deterministic standard values, regarding the dangerousness of things to the human body. According to standard risk theory, the probabilistic concept of risk implies Omnipresence of low-risk, Comparability of risk with benefit or cost, and Comparability of risks in a trade-off relationship. And certain standard values of Comparability are established through societal decision-making processes.

[112] Precisely speaking, there is no single distinction such as 'apple,' but distinction-correlation such as 'apple/orange/etc.' Ordinary world appears as an aggregation of the particular marked sides of *phenomenal distinction-correlations*.

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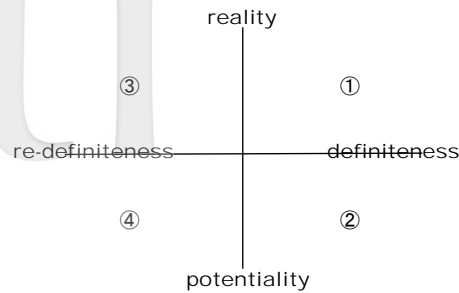
Figure 1 framework of meaning

Now, we try to apply the above framework to Risk. The fundamental feature of the *20th century Risk Type* is *Determined*, that causes Calculability. For example, the units of 'Becquerel,' 'Gray' or 'Sievert,' measure radiation. From this calculability are derived the following features: ① Difference of risk/danger, ② Future prediction and Continuity of time, ③ Demarcation of the offender/victim, and ④ Objective knowledge (**See Figure 2**). In the case of economy, the compensation-amount for few victims can be calculated, that causes insurance work's capital circulation with conditions consisted of a large quantity, equality, and diversification.
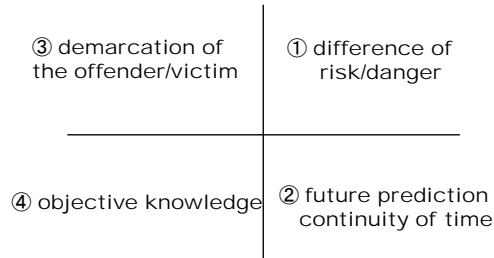

Figure 2 : 20th century risk type

In the 1980's, the Global Environment Problem enters ethical discussions, replacing the past occupational disasters and industrial pollutions. The introduction of wide-ranging and low-influencing dangerous events is beyond the 20th century Risk Type. For examples, spread of food pollution, mega natural disasters (abnormal weather and tsunami), diffusion of computer virus, or expansion of terrorism. Name them a *21st century Risk Type*, characterized as
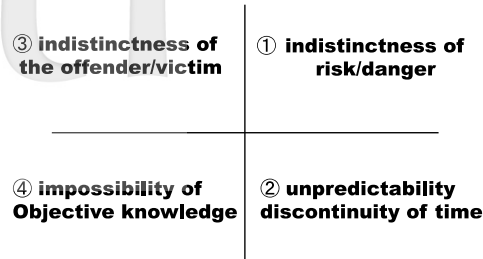
follows (**See Figure 3**)

③ indistinctness of the offender/victim	① indistinctness of risk/danger
④ impossibility of Objective knowledge	② unpredictability discontinuity of time

Figure 3: 21st century risk type

The fundamental feature of *the 21st Risk Type* is *Undetermined*. The 20th century Risk Type becomes no more valid on the 21st century Risk conditions as remarked above. The demarcation of the offender/ victim becomes indistinct. On the case of the enormous number and amount of compensation, insurance work itself could not maintain. Nevertheless, the Standard Risk Theory based on the 20th century Risk Type, tries to determine and calculate *Undetermined* dangerous events beyond its ability. Consequently, there occur scientific controversies among specialists or professionals regarding reasons of prediction and standard values. Here the Second Approach, focusing Communication has appeared, replacing the First.

2. Risk as the communicative side of things

This Second Risk Approach is interested in how to narrate dangerous events and how to interpret their meanings. Consequently, here, the same thing is seen differently according to different Perspectives. In the case of Risk, all events appear as calculable from the perspective of the Decision-maker side, and appear as either dangerous or safe from the perspective of the Influenced side. However, among advocates, there are different views of this approach. Here we investigate Human Communication Processes according to N. Lumann's view [115].

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[115] The following is the essence of Lumann's view of social system theory, as far as I can abstract it. Concerning the Two Approaches, he approves the Commensurability of both. This is

In Face-to-face communication, people are both actors and observers, respectively. As well, there can be third-party observers outside of the immediate communication. Firstly and immediately, in a dyadic exchange, each person observes the other's expressions and gestures (and estimating the other's mind through them). Next, through an imaginary exchange of standpoint, he or she constructs an image of his or her own expressions and feelings, and finally, compares the two observations and determines whether there is agreement or disagreement [116].

If there is any mistake in the sympathy-structure above, then it is the assumption that one's observation of another's expressions is somehow objective. According to Lumann's view of the inside-comparison, no necessary connections exist among information, transmission, or understanding, since any connections occur inside of observers' mind. Therefore, any communicator possesses Two Self-interpretations, that is to say, a communicator's interpretation of other's mind through expressions and gestures, and his or her interpretation of one's own mind (**See Figure 4**).
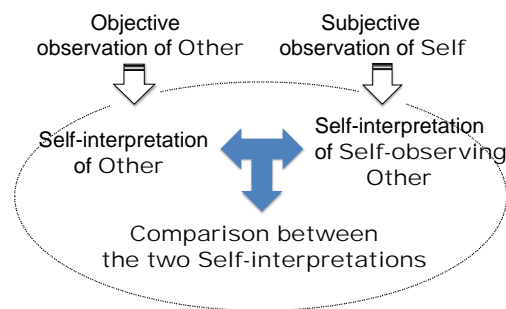

Figure 4: comparison of self-interpretations in one's mind

Meanings interpreted independently in each side connect each communicator. As a matter of fact, Diverse meanings multiply and

the crucial point that differentiates him from other advocates. This difference derives from his theoretical view on Communication. See Lumann, N., 1984, *Soziale Systeme* (Suhrkamp); 1997, *Die Gesellschaft der Gesellschaft,* Bd. Ⅰ & Ⅱ (Suhrkamp); 2002, *Einführung in die Systemtheorie* (Carl-Auer-Systeme) ; 2005, *Einführung in die Theorie der Gesellschaft* (Carl-Auer-Systeme).
[116] The above paragraph is the essence of the famous sympathy structure in A. Smith. See Smith, A., 1759 (1st), *The Theory of Moral Sentiments*, Section 1-1, Of Sympathy.

Misunderstandings occur. We could say that Misunderstanding drives Communication. Also, communication leads from one misunderstanding to another. This continual process of comparing and contrasting one's own changeable images of oneself with other's expressions and gestures is called *Understanding*. Within this continual process, communicators transform themselves.

Fragments of meaning-connection are gradually arranged through the communicators' shared Expectations. Through mutually arranging fragments of meaning, a certain pattern emerges and establishes itself, namely, *Structure*. And when a certain structure restricts particular connections, a *System* comes into existence. A System is established whenever any structure is formed. Structure actually operates as *Structuring* connections. In the case of some disconnections, structure needs higher-order of self and becomes a *Re-structuring structure*.

Come back to our main theme. From the perspective of Communication connecting and sharing meanings interpreted respectively, there emerges the axis of conflict between two heterogeneous communications regarding Risk. This is the one between communications of the "decision-making people" side and of the "influenced people" side. [117]

The Former includes specialists, policy makers and executors. Here people use technical terms, calculate properties of events, and predict their influences on human population. This communication is based on the First Approach, coping with the 20th century Risk Type. Conversely, the Latter is communication among citizens, non-specialists and victims. Here, people use alternative words of safety or danger, on emotional basis oscillating between feelings of ease or anxiety. Consequently, they tend to express naïve and excessive oppositions against the Former, feel an absolute sense of salvation, or insist on some form of fundamentalism.

As mentioned above, this Second Approach depicts the axis of communication conflict between different social belongings, and includes the First Approach into its framework. Therefore, it is considered as sensitively responding to the *Undetermined* nature of the 21st century Risk Type. For individuals, borders of belonging are so fluid that he or she can move from one

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[117] See Lumann, N., 1991, *Soziologie des Risikos* (Walter de Gruyter).

side to the other as circumstances change. But the two kinds of communication remain intact. On the contrary, as the 21st century Risk Type prevails and becomes ordinary, some gaps between the two become more and more serious.

3. Orders of ideology and its discrepancy

When facing severe conflicts and serious gaps between the communications of these Two Sides, a Third Type of communication comes on the scene to resolve such conflicts, this is to say, Ideology: the communication oriented some total knowledge of the whole society. However, most advocates commit their particular ideologies and observe such conflicts. Here we put an outline of what is Ideology connected with Society.

First of all, what is Society? Difficult to answer it, yet, I dare to say that society primarily indicates a Communication System that connects meanings among people. Therefore, traditional and common views that society is 'human relations' or 'action-correlation' are secondary, because of presupposing Meanings.

A Social System is primarily Face-to-face Communication, secondly, Organization, in complex manners with certain commonly shared goals, and thirdly, a Functional system, when becoming independent from undifferentiated totality. Contemporary whole societies include all the social systems, especially Mutual Connections among functional differentiated systems, such as economy, education, politics, science, and so on. [118] (**See Figure 5**)

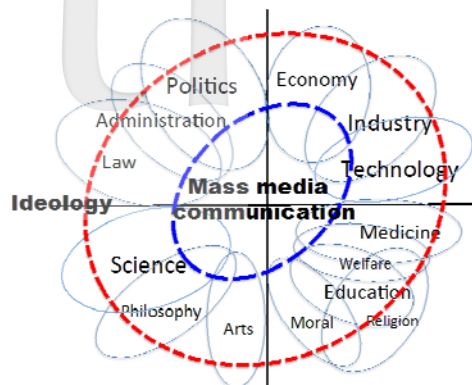[118] See Lumann, N., *Die Gesellschaft der Gesellschaft,* Ⅰ & Ⅱ.

Figure 5 : Correlation among functional systems

In a Whole Society, some *Effects/Burdens* expressed from inside of one functional system affect not only other functional systems, but also all larger social systems, through the amplifying media of Mass Communication. As well, when structural operations cannot treat well *Effects/Burdens*, the Idea System (Ideology), as recursive structuring, intervenes to reconstruct Problems and propose Resolutions.

As for Mass Media Communication, it plays a kind of mediator role reflecting mutual influences, as if it were a mirror, among functional systems. This mirror diffusely reflects various *Effects/Burdens* emitted from a particular system, shakes the structures of other systems, and invents a kind of Totality: the public. Such a Totality, certainly, is apparent and just one aspect of the whole society. However, as it is difficult for individual humans and organizations to know their own Whole Society or Natural Circumstances, so the role of mass media communication comes to be both indispensable and questionable.

On the other hand, Ideology is a Recursive Structuring of the Whole Society itself. It totally observes the whole society, especially the Correlation among functional systems, and authorizes or criticizes the existing one. To be concrete, ideologies, coupling with interpretations of meanings inside of individual human systems (especially consciousness), play the part to discover certain Problems inside of the whole system and advocate certain Resolutions. However, there inevitably occur conflicts among various ideologies.

According to the Meaning-framework mentioned above, ideology can be also classified into four groups: ① Practicality, ② Communality, ③ Integration, and ④ Transcendence. Under this ideology structure, there are the following Four Positions (**See Figure 6**).

③integration	①practicality
universalistic citizens position	specialist position
transcendentalists position	anti-specialists position
④transcendence	②communality

Figure 6：Framework of ideology and its positions

We here put examples for these four positions. Within ① Specialists' position, advocates of scientific rationalism, technical countermeasures, cost/benefit balance, or self-responsibility are included. ②Anti-specialists insist on various groups' identity, solidarity for victims, or familial ties. Within ③, beyond both specialists and anti-specialists, advocates of the so-called Universalistic citizen may lead contemporary public discussions, such as A. Giddens, U. Beck, or J. Habermas [119]. And finally, within ④ Reflective transcendentalists' position, advocates emphasize "Life," "Mu" or "Kuh" (Nothing in oriental intellectual traditions), or "Difference" in modern philosophy.

Now, we here notice that there are severe conflicts even among Ideologies, while they themselves, in the first place, have the roles to resolve serious ones. Why are ideological positions divided in such a way? The reason is that although the Four Ideal Poles are a set of dimensions, each ideology is based on one dimension with only one totality for the whole society. The result is that fundamental divisions inevitably occur.

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[119] See Giddens, A., 1990, *The Consequences of Modernity* (Polity Press); Beck, U., 1986, *Risikogesellschaft: Auf dem Weg in eine andere Moderne* (Suhrkamp); Habermas, J., 1981, *Theorie des kommunikativen Handelns*, Bd. Ⅰ & Ⅱ (Suhrkamp).

People can see other's Blind Spots, except their own ones, owing their Specific and Biased Perspective. So as ideological positions, therefore, each has the following biases respectively: ① the Specialists' position has one-sided assimilation called enlightenment into rationality; ② the Anti-specialists' position has refusal against rationalism and one-sided compulsion of communality; ③ the Universalistic Citizen's position has an idealistic illusion of citizenship and consensus; and ④ the transcendentalist's position has a fundamental denial of all kinds of fixed ideas or identities.

Through the former Three Positions, we can recognize there commonly is the perspective of *Agreement* that indicates the distinction of *Agreement/Disagreement*. However, the potential for *Non-agreement* is there hidden. In some sense, the transcendentalist's position indicates this Potentiality, but still remain outside of public discussions. In these days, we can no longer find any transcendental, absolute, or privileged perspective, so that only *Horizontal and Mutual* observations are possible. This is the communication that can connect meanings between the observing side and the observed side on the same plane, and also transfer comparisons between self-interpretations as mutual outside stimuli. That is my Perspective of Ethics.

4. Orders of ethical problems and ethics

The Structure is approved as far as it is formed as some constraint condition to stabilize contingent connections, not only for Human Communication, but also all Events' Connections. Structure actually operates as Structuring connections inside of the system, explained above. In the case of Disconnections, structure recursively produces higher-orders of self. Structuring has Three Orders. The First Order is the normal or ordinary one, the Second is Re-structuring structure, and the Third is the most significant one, that recursively connects one Re-structuring with another Re-structuring. We take here also the human system for its example.

The Human System has Three Different Internal Systems: a Molecular biological system, a Living organic system, and a Self-conscious (namely thinking) system. What is connected and reproduced are Proteins with particular

marks in the case of the Molecular biological system. There are also Mental Images (sensations, affections, or desires) in that of the Living organic system, and Meanings of Symbols in that of the Self-conscious system.

These three systems have their own structures: DNA, Emotional Patterns (instincts), or Language rules. From the perspective of a System, the Meaning structure of the Third Order is established by connecting Image-connections of the Second Order with Symbol-connection of the Second Order (as various types of pronoun as opposed to nouns of the First Order). This is the Third Order: a distinctive character of Human beings (**See Figure 7**).
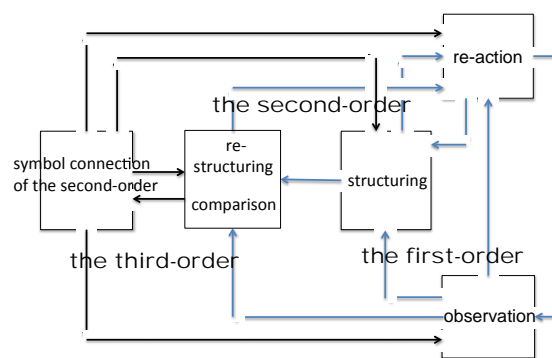

Figure 7: orders of structuring

A human system exchanges meanings with other human systems. Whenever this communication forms a connection with a structure, a Social System comes into existence. As mentioned above, there are Four Levels of social system: Face-to-face communication, Organization, Functional system, and The whole society. And each has its own structure. Under the perspective of structure, we can have a new concept of Ethics.

Until now, people have attributed many meanings to Ethics. If we put them in order, there roughly are Four Groups: *Belief* in an individual way of life, *Reliance* on mutual relationships, *Ethos or tradition* in organizations, and *Societal divisional principles* framing the whole society. In fact, no integrated perspective has ever been penetrated into, so that the concept of ethics still remains ambiguous. Consequently, people have tended to cope with these Four

Groups either separately or with confusion.

Here, if we introduce the perspective of Structure, then the Four Groups of Ethics may be considered as isomorphic. That is, Searching for a meaningful life, Settling good relationships, Defending organizations, or Reforming society—all is in common Recursive Structuring of the system itself. From the perspective of systems, we can easily consider isomorphism and differences among the four levels of structure.

In short, Ethics could be newly defined as the *Recursive Structuring of the social-human system*. Then, there are Three Orders of Ethics. That is: most ordinary living ethics, such as the customs of various societies, are of the First Order. Ethical problems that people loudly discuss in a crisis are of the Second Order, while ideologies attempt to resolve them. And the recursive perspective of observing ordinary ethics, and especially critical ethics, is of the Third Order: Ethics as reflective theory.

However, classical ethical theories still remain of the Second Order. This is the case for ① liberalistic or utilitarian, ② Aristotelian or Hegelian, ③ Kantian deontological, and ④ theological or non-theological. The reason is that, to be fundamental, they have themselves still been binding on the Ideological framework. Ethics as reflections on ethical problems has never moved into the Third Order. If the critical comments mentioned above are valid, how does the Ethics of the Third Order treat communication conflicts?

5. Parallel model and its mediator

We introduce here Three Formal Models in order to resolve conflicts between dual communications, whether at the individual or the collective level.

The First is the One-Sided Model, in which one side assimilates the other side, despotically or enlighteningly (**See figure 8**). For example, in medical ethics, it applies to both doctor-based paternalism and patient-based self-determination. Ideology positions of ① and ② adopt this model.

The Second is the Consensus Model, in which each side holds respect for the other side, and aims at some Agreement through mutual Understanding and Acceptance (**See figure 9**). The so-called information/decision-sharing model in

clinical ethics is its example of. However, this model has its weak points: illusions of the possibility of Understanding, as well as the unconscious compulsion of ideal views. In this sense, this model is also One-sided. In addition, it cannot cope with *Undetermined Risk* that makes it much more difficult to reach a consensus. The ideological position ③ adopts this model.

These two models have also their peculiar blind spots of *Agreement* and of potentiality of *Non-agreement*. Therefore, the axis of conflict remains fixed, so that the ideologies divided.

In contrast to the two above, the Third is the Parallel Model that is newly proposed here (**See Figure 10**). What is expected in this new model is not *Agreemen*t between both sides, but *Self-transformation* within each side. Consequently, its goal is not some *Dissolution* of conflict, but merely some *Fluidization* or *Movement* from one conflict to another. In fact, both sides may happen to come closer, but it is not intended. The former two models can be extreme cases under this Third Model. This model is adopted by a revised version of the ideology position ④. In addition, this Parallel Model is theoretically based on the self-transforming system, being influenced by outside stimuli, self-interpreting, and then self-transforming.
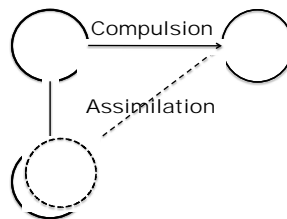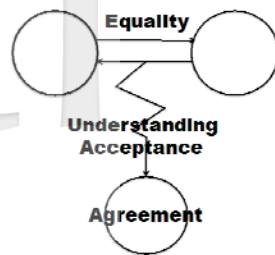

Figure 10 The one-sided model

Equality

Understanding
Acceptance

Agreement

Figure 11　The consensus model

Outside stimuli　Outside stimuli

Interpretation **MOVEMENT** Interpretation

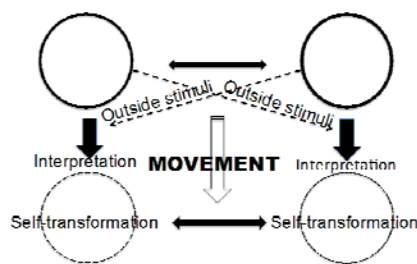Self-transformation　Self-transformation

Figure12　The parallel model

This Parallel Model applies to all communications, whether personal or impersonal, or individual or collective. However, if there are some Mediators who know well of this model, they may expectedly make some *Movement* or *Fluidization* of conflicts smoother and easier. But mediators are in general so various that we need some demarcation among them. We try to classify them into the following Four Types (**See figure 11**).
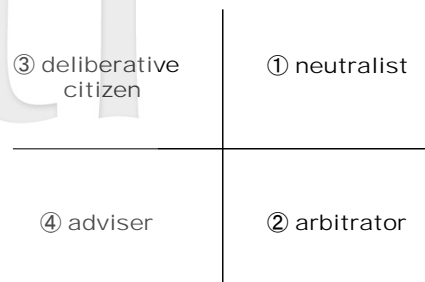
③ deliberative citizen | ① **neutralist**

④ **adviser** | ② **arbitrator**

Figure 11：Four types of mediator

The First Type is ① a Neutralist who prepares the table for talks, but never intervenes in the talks and leaves decisions to both sides. As a result, conflict either continues or vanishes. The Second is ② an Arbitrator who prepares the table for talks, and then proposes some compromises. Consequently, both sides concerned are confronted with some compulsory assimilation from the outsider. The Third Type is ③ a Deliberative Citizen who prepares the table for talks, and intervenes in the talks bringing consensus with both sides. But, because of the unattainability of some unanimous decision, such a deliberated citizen may end up dreaming of an idealistic world.

The Fourth Type is ④ an Adviser who is a mediator incorporated within the parallel model. This advisor observes both sides, standing on the same plane and either observing or being observed. And he or she makes no direct compulsions or interventions, instead making some indirect suggestions for both sides. This suggestion is the very function of ethics of the third order. Here, appropriate suggestions for facilitating self-transformations of both sides are: Relativity (balancing four quadrants), Blindness (a perspective of non-agreement), and Facticity (condition of truth). As each side transforms itself, conflict situations will turn to transform themselves [120].

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[120] Concerning conflict of the Two Approaches, Lumann distinguishes the perspective of the person concerned (the First Order observation) from the perspective of the observer (the Second Order observation). In contrast to his view, I consider the difference between the two perspectives as that between the two approaches, thinking that each approach has both the First Order and the Second Order.

6. Conclusion

Ethical Re-structuring of the Third Order is essential not for ideology but for science and technology. I expect my intelligent readers to quest the possibility of Risk Theory and its Self-transformation that I also do. My Parallel Model applies to both ideological divisions and conflicts between Two Approaches. The fundamental root of these two can be found in the Two Original Perspectives encountering Things, as introduced at the beginning. Consequently, Ethics of the Third Order facilitates them Self-transformation with Three Suggestions above: Relativity, Blindness, and Facticity. Especially, Facticity, their common basis, is crucially important toward inside conflicts in the First Approach [121]. To become humble before facts applies not only to ideology, but also to science and technology. After all, through Self-transformations of each approach, Risk Theory and Discussion can be Self-transformed.

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[121] Fact is complicatedly made up as proposition, whether historical fact or experimental fact. Scientifically speaking, a fact is a function of observation, device, language, and hypothesis/theory. And a hypothesis/theory is a function of the past experience/fact, the past theory, perspective, and ideology. Although Fact is composed of multiple variants; and each observation depends on the observer's perspective, the basis of communication is certain *consistent correlations* among Facts, that make particular assumptions in risk probability theory valid. This view is similar to "structural realism" in Chalmers, A.F., 1999 (3rd ed.), *What is this thing called Science,* Chap.15 (University of Queensland Press).

References

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8. See Lumann, N., 1991, *Soziologie des Risikos* (Walter de Gruyter).

9. See Lumann, N., *Die Gesellschaft der Gesellschaft,* Ⅰ & Ⅱ.

10. See Giddens, A., 1990, *The Consequences of Modernity* (Polity Press); Beck, U., 1986, *Risikogesellschaft: Auf dem Weg in eine andere Moderne* (Suhrkamp); Habermas, J., 1981, *Theorie des kommunikativen Handelns*, Bd. Ⅰ & Ⅱ (Suhrkamp).

11. Concerning conflict of the Two Approaches, Lumann distinguishes the perspective of the person concerned (the First Order observation) from the perspective of the observer (the Second Order observation). In contrast to his view, I consider the difference between the two perspectives as that between the two approaches, thinking that each approach has both the First Order and the Second Order.

12. Fact is complicatedly made up as proposition, whether historical fact or experimental fact. Scientifically speaking, a fact is a function of observation, device, language, and hypothesis/theory. And a hypothesis/theory is a function of the past experience/fact, the past theory, perspective, and ideology. Although Fact is composed of multiple variants; and each observation depends on the observer's perspective, the basis of communication is certain *consistent correlations* among Facts, that make particular assumptions in risk probability theory valid. This view is similar to "structural realism" in Chalmers, A.F., 1999 (3rd ed.), *What is this thing called Science,* Chap.15 (University of Queensland Press).