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The Way of Eco-Sophia

for the Future of Civilization

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Parallel Session Papers

Sapientia convivendi in Life of Suso-Narratological Perspective of German Mysticism on the Horizon of Love and Reconciliation

ABE Yoshihiko (Sophia junior college, Japan)

abe_rroes@hotmail.com

1 The Meaning of Suffering in *Life of Suso*

Henry Suso (c. 1295-1366), like Meister Eckhart (c. 1260-1327) and John Tauler (1290-1361), is one of the most important Dominican thinkers in Deutche Mystik. This paper treats his autobiographic and confessional book, *Life of Suso (Vita)*¹, to discuss his idea of love and reconciliation with others.

1-1 The path of spiritual exercise – from lower school to advanced school

In *Vita*, Chapters 1-18 in part one, it concerns “lower school”, and after Chapter 19, it concerns “advanced school”. After his conversion, Suso began his true religious life. He determined to live a servant of Eternal Wisdom (*Vita*, III, 14). And he tried to practice the exercise of lower school very hard.

The bodily and spiritual exercise of lower school is to learn how to control human nature. It is nothing other than to make body and flesh subject to the spirit. Suso kept on practicing this “outward exercises”, “exterior penitential exercises” (*Vita*, XV, 39). Inside friary, he engaged this monastic asceticism from his eighteenth to his fortieth year (*Vita*, XVIII, 52).

1-2 The meaning of suffering in the divine chivalry – spiritual exercise of “advanced school

Though it was very profitable for a beginner to be closed off from everything inside friary, Suso could not be a knight yet. He was still just a squire of knight. He had to encounter many dangerous battles to be a spiritual knight. The real struggle just began and he had to have more battles than famous heroes of old did (*Vita*, XX, 55-56).

Suso had to be tried in all things to his ground. The path of spiritual knight is stage of person making progress and countless sufferings. Sufferings of the stage of beginner are brought by his own hand. Now sufferings of advanced school are brought by hands of others. Suso had high estimation for his serious earlier exercise. But he had to suffer the public destruction of his reputation in the

¹ For Middle German text, chapter and page, see Heinrich Seuse, *Deutsche Christen*, hrsg. von Karl Bihlmeyer, Stuttgart, 1907. All English passages of Suso quoted from *Henry Suso, The Exemplar with two German Sermons*, translated, edited, and introduced by Frank Tobin, preface by Bernard McGinn, Paulist Press, New York – Mahwah, 1989.

estimation of some blind people. He had to be abandoned the whole world and persecuted both by friends and enemies (*Vita*, XX, 57).

Suso regards such suffering as spiritual exercise for perfection of spiritual chivalry. Suffering is the gate to true knight. This meaning of suffering expresses itself in symbol of red rose. Though red rose (i.e. suffering) gives person pain and agony, he was adorned with red rose. As the symbol of red rose shows, Suso considered suffering that is brought by hands of others necessary for spiritual development (*Vita*, XXII, 64-65). And Suso referred to suffering in *Little Book of Eternal Wisdom (LBEW)* before *Vita* and said suffering is “the safest and shortest path, and the most perfect”, and should be accepted from God “as a valuable gift”(LBEW, XIII, S. 251). This is typical of Suso’s understanding of suffering.

1-3 Detachment of Suso – Union with Christ in suffering

Suso found very positive meaning in the suffering that is brought by hands of others and took such suffering as important spiritual exercise. And this exercise is completed by leaning and mastering the art of detachment - “gelâzenheit” (*Vita*, XIX, 53). The concept of detachment came from “reliquere” (to resign, leave, abandon, forsake, desert, etc.) in Latin. “reliquere” is translated into Middle High German “lâzen, gelâzen, verlâzen”, and it appeared in Bible translation such as “nos reliquimus omnia”(Mt. 19. 27)². The first example of “lâzen” as the spiritual expression of self-resignation for God – “sich selber lassen” - could be found in the work of Mechtild of Magdeburg who is famous author of German feminine mysticism. Detachment – “gelâzenheit”- as abstractive norm and philosophical or theological term first appears in the works of Meister Eckhart. In his first German treatise *Rede der underscheidung (Talks of Instruction, 1294-1298)*, there is his first expression of Detachment and he also quoted the words of St. Peter that is said to Christ, “sich, herre, wir hân alliu dinc gelâzen”(See, Lord, we have forsaken all; cf. Mt. 19, 27)³. This word of Peter, according to Christian tradition of Bible exegesis, is interpreted as original expression both for monastic vow of poverty and ideal of apostolic life -- Imitatio Christi -- that is to follow Christ in poverty. Such traditional Bible interpretation still echoed through centuries into Dominican monastic spirituality and Eckhart also heard in the voice of

² Cf. Ludwig Völker, *Die Terminologie der mystischen Bereitschaft in Meister Eckharts deutschen Predigten und Traktaten*, Giessen, 1964, pp. 80-91. Erik A. Panzig, *Gelâzenheit und Abegescheidenheit – Eine Einführung in das theologische Denken des Meister Eckhart*, Evangelische Verlagsanstalt, 2005, Leipzig, pp. 54-58.

³ Meister Eckhart, *Die deutschen Werke*, Bd. 5, Stuttgart, W. Kohlhammer, 1963, pp. 195-196. Cf. Adeltrud Bundschuh, *Die Bedeutung von gelassen und die Bedeutung der Gelassenheit in den deutschen Werken Meister Eckharts unter Berücksichtigung seiner lateinischen Schriften*, Peter Lang, Frankfurt a. M., Bern, New York, Paris, 1990, pp. 107-110.

Peter the ideal of apostolic life and monastic vow of poverty⁴.

For Suso's understanding of Detachment, it is characteristic that his Passion-mysticism, Cross-mysticism and Christ-mysticism in which searching for religious life as *Imitatio Christi* is argued are all centered on Detachment and Detachment is focused upon Christ on the cross. According to Suso, Detachment is achieved and revealed by Christ who "was deserted [gelassen waz] by the heavenly Father and by many on the cross" and spoke this psalm in anguish "God, my God, why have you forsaken me"(min got, min got, wie hast du mich gelazen; *Vita*, XXX, 87; *LBEW*, XII, 246; XVII, 272; cf. Mt. 27, 46; Ps. 22, 2). For Suso, Detachment is not just a self-resignation; moreover, it is the way to union with Christ in suffering of cross that is summit of passion.

The cross of Christ is "the most extreme point of immense bitterness -- suffering with not a bit of consolation -- that no torment was ever equal" and Christ said psalm with pitiful voice when he "hung there utterly helpless and forsaken, with blood dripping from his wounds, his eyes weeping, his arms stretched out and the twisted tendons of all his limbs at the point of death"(*LBEW*, XVIII, 272). This Detachment of Christ is "Kenôsis" (self-emptiness) and nothing other than perfect achievement of Sun's obedience to Father (*LBEW*, XVIII, 273; cf. Phil. 2, 8). Humankind, accordingly, should be changed and become Sun of God by Christ taking on the form of the same image and through unification with his figure in the passion of cross that is apex of the suffering.

Therefore the meaning of many sufferings that should be received in order to be the spiritual knight is understand in the light of union with Christ who accomplished Detachment. Suso also should be "abandoned both by God and the whole world" as Christ does (*Vita*, XX, 57). And such path of suffering is chosen and prepared by God and through suffering Suso should be formed according to Sun of God (*Vita*, XXIII, 70).

2 "Hot Tears" in *Vita* - Two Character

In *Vita*, two important characters appear and Suso weeps "hot tears" by them. Both two are women and inflict Suso very hard. One of two is Suso's sister and the other is woman of whom Suso took pastoral care and she bore malice against him. In *Vita*, the first scene in which Suso wept for other is reunion with his sister who disappeared from her cloister because of her vice. After his journey to bring sister back on right way, he found her and wept hot tears for her with her. In the second scene, there appears the harmful woman with her child whose father unknown and she threatened Suso that she will claim that father of her child is Suso publicly. Suso wept hot tears for this child. Following chapter, I would like treat the suffering that is brought him by two women and the meaning of "hot tears" that is the symbol of love and reconciliation.

⁴ Marie-Humbert Vicaire, OP, *L'imitation des Apôtres: Moines, Chanoines, Mendicants*, Cerf, 1963.

2-1 Sister of Suso (*Vita*, XXIV, 70-74)

In his calling to be spiritual knight, Suso had to be inflicted by the hands of others and one of which is her sister's. She was belonged to a religious order. While Suso was in another place, she often went out the cloister and had association with bad company. Soon she fell into sin and because of conscience, she ran out the cloister and nobody knew where (*Vita*, XXIV, 70). When he came back to his cloister, he knew the affair that is spread around and he "was petrified with sadness and his heart died within him. He wandered about like a man out of his senses. He asked where she was, where she gone. No one could tell him" (*Vita*, XXIV, 70).

In addition to this, he had to bear more suffering, because of his being deserted by his companions and close friends. His companions avoided him and his close friends ashamed him, scorned him and turned away from him (*Vita*, XXIV, 71). He said along with poor Job, "Now it is up to God to comfort me since the whole world has deserted [gelassen] me" (*Vita*, XXIV, 71).

Being in such suffering, he decided to rescue her from her hardship, and said "I was ready for new suffering. ... Offer up all worldly reputation to our merciful God. Cast aside any merely human sense of shame. Jump down into deep mire and lift her up" (*Vita*, XXIV, 71). After miserable and hard travel, he finally found her out. When he met her again, collapsed onto the bench where she sat and fell into a faint twice. And he came to, he began to cry and weep saying "O my God, why have you forsaken [gelan] me" (*Vita*, XXIV, 71). This Suso's cry derives from Christ being crucified and it means his union in suffering with Christ of Detachment.

Suso's sister also wept bitterly with tears of remorse naming herself "a poor rejected sinner" and spoke to brother "what everyone else disdains and finds repulsive you have searched out. While everyone is ashamed of me, as they should be, your eyes pursue what is a painful object of loathing for them and seek me out" (*Vita*, XXIV, 72). And Suso replied to her and said "Oh hot tears! Burst forth from a full heart that can no longer contain its grief! Alas, my child, only joy of my heart and soul from the days of my childhood, from whom I expected to experience joy and comfort. Come here and let me press you to the lifeless heart of your unhappy brother. Let me flood the face of my sister with my eye's bitter tears. Let me weep and mourn over dead child" (*Vita*, XXIV, 73).

As the words "dead child" and "a poor rejected sinner" reveal, the Biblical background of this story of brother and sister is Jesus' parable of the prodigal son (Luc. 15, 11-32) and scarlet sinful woman (Luc. 7. 36-50) whom Jesus accepted and forgave, namely it signified the forgiveness and reconciliation of God that is showed by Christ. Being in the forgiveness and reconciliation of God, Suso also accepted his sister and she accepted him each other with tears. In addition to this, tears that flood from eyes of both invoked affection of pity and moved the heart of those who saw them and nobody could keep from weeping with them (*Vita*, XXIV, 73).

Hot tears made all draw into the forgiveness, love and reconciliation of God. People disdained Suso's sister and on the account of her behavior Suso was also detested by them all. As a consequent, both

Suso and sister were eliminated from social contact utterly. But the heart of those who detested them was touched by love and reconciliation of God that was presented in and showed by Suso and sister, whose tears broke people's autistic, self-closeness mind. True love and reconciliation was realized when people could weep with Suso and sister and by their weeping with people together, tears of people was accepted by Suso and sister. Tears that were flood there are symbol of accomplishment of love and reconciliation of God between those who were persecuting and those who were being expelled.

2-2 Child of Suso (*Vita*, XXXVIII, 117-130)

Thereafter, Suso began to work pastoral care for others again. But it caused also more suffering again. According to his word, "these good and virtuous actions had to be paid for most bitterly with torturous suffering that befell him" (*Vita*, XXXVIII, 117). Many women came to him and they were both those living in the world and nuns. A number of women who came to Suso had fallen into sinful life because of their weakness and they were driven by panic to the temptation of wanting to take their lives because of their shame (*Vita*, XXXVII, 116-117). These miserable women had no one to whom they dared open their grief-stricken hearts, and when they heard that Suso had a generous heart for all those who suffering, they plucked up their courage and came to him (*Vita*, XXXVII, 117).

Such pastoral care for women brought Suso bitter affliction because of their deception and betrayal. Suso was taught beforehand by vision from God about the meaning of suffering. It showed that the suffering he should bear is required for martyr and "friends of God" and he must be martyr and friend of God through his suffering that is allotted him (*Vita*, XXXVIII, 117-118).

Suso met a woman who had fallen into serious sin and disgrace with a man. Suso heard her confession and did not blame her no more. Though she became helpful to him and on behalf of him she collected necessities and served those things to him, she secretly began to behave viciously as she did before (*Vita*, XXXVIII, 119).

Suso became aware of her conduct and he kept silent, but he would not receive service from her no more. As a consequent, she could not collect necessities on behalf of him and she should lose her advantages. Then, in order to disgrace him, she claimed that the child she had conceived by a man is his and he was terrified by hearing this (*Vita*, XXXVIII, 119-120).

She told many people that she had given birth to a child and that the father was Suso and because of this there aroused the scandal. Those who used to consider Suso a holy person and held him in honor; now consider him vicious deceiver and it wounds his heart. Then another woman who respected Suso came to him and gave an idea to protect his honor and to help him who was poor suffering man. She said to him, "I shall put the child under my coat and at night bury it alive or stick a needle through its brain so that it will surely die" (*Vita*, XXXVIII, 119-120).

Hearing her words, he was in righteous indignation and protested against her with his voice of anger; "You are wicked murderess!" (*Vita*, XXXVIII, 121). Admitting his frailty of mind that feared to lose his

worldly honor, nevertheless, he said to her that he did not want to let innocent blood pour for it. Being rejected and blamed by him, she retorted: “Well, after all, it is not your child. Why are you making such a fuss about it? ”, and with more furious tone and pulling out sharp pointed knife: “Just let me carry it away from your sight and I will slit its throat, or I will stick this knife into its tiny heart. Then it will quickly die and you will have your peace” (*Vita*, XXXVIII, 121).

He rejected her again and said: “Silence, you filthy evil devil! Whatever it is on earth, it is still formed in the image of God and very dearly redeemed with the precious innocent blood of Christ. This is why I will not allow its young blood to be spilled like that” (*Vita*, XXXVIII, 121). She replied to him impatiently that he should pay great expense and trouble with it until the little boy has been brought up. To her Suso answered that he trusted in God who is powerful enough to help him until now and God would help the child also (*Vita*, XXXVIII, 121).

In this exchange, they could not come to agreement each other and only tension between their opinion and emotional conflict grow up. Then he said to her to go and bring the child secretly to him. And it follows the scene in which Suso faced the child. When Suso put the child on his lap and looked at it, it laughed and it moved his heart. Suso sighed deeply and thought himself why he could kill the pretty child who is smiling at him. He decided to protect it at great cost of suffering that will afflict him hardly and said to it: “Alas, poor homeless child! What a poor little orphan you are! Your own faithless father has denied you. Your murderous mother wanted to throw you away like a repulsive cast-off dog. Now God’s decree has given you to me so that I shall have to be your father. And that I shall gladly be. I have you from God and from no one else. Oh, my child of my heart, you sit on my miserable lap and look at me. You don’t know how to speak. I look at you with my heart wounded. My weeping eyes and kisses of my mouth pour over your childlike face in the stream of my hot tears” (*Vita*, XXXVIII, 121-122).

Then the child on whose face flooded the stream of hot tears began to cry and weep along with him. Both of them who now become new parent and child cry together. Suso comforts the child who becomes his own child from God just now and said to it with lovely words: “Oh pretty, dear and tender child of mine, I really cannot do you any harm, because you have to be my child and God’s. As long as God supplies me with a single mouthful [of food], I shall share it with you for the praise of our dear God and shall suffer everything in patience that may ever befall me, dear child of mine” (*Vita*, XXXVIII, 122).

Now Suso is not pressured to accept this child by no longer. He accepts child willingly and becomes its father along the will of God. Formerly he was trembling by the fear of accusation and scandal that spread about him. At the same time, he was worried about himself alone and suffered from anxiety about the result of this problem. The words of the woman who said to kill the child moved his deep conscience and simultaneously shook his frailty of mind. Nevertheless he could not overcome his frailty and selfish self-closeness by his own effort alone. According to the story, Suso could begin to break such self-closeness at last, when the child on his lap looked and smiled at him.

Though, this poor child who was detested and almost killed was less powerless and hopeless than Suso in this situation, the smile of this child brought Suso to exit his self-closeness. Suso could not determine to accept this child and become the father of it by his own effort alone. But Suso became able to do it, when this child accepted Suso with smiling and laughing of innocence.

The child became Suso's child, and then Suso became its father. But it would be unnecessary and useless to search self-consciousness of this child for love or cognition for Suso. As story told, Suso accepted this child from God as child of God. In smiling of child, Suso found the look of love that is poured from God abundantly. And through the look of child, he also found himself in the very love of God with the child and he could trust God who should feed them generously. Then he rises from the deep of despair, anxiety and fear, up to the horizon of love and reconciliation of God where Suso and the child accepted each other. This exodus of Suso from self-closeness into the horizon of love and reconciliation of God happened in the very precious moment of encounter with the child who was more wounded and miserable. Moved by hot tears and words of love between Suso and the child, the woman who wanted to kill the child became free from her selfish adherence and she could weep with them and live new life in the horizon of love and reconciliation of God together (*Vita*, XXXVIII, 122).

In this consideration, we could touch some part of *Vita*. How could we hear the "Voice from the Beyond" that calls us now to the horizon of love and reconciliation from this autobiographic and confessional book of mediaeval German mysticism? There remain further issues that are worth to considerate for us today. This article is only the beginning of further study.

The reflect of the war-like of logos-centrism
—The way to co-exist and reconcile—

ANZAI Masahiro (Sophia University, Japan)

anzaiaaaa@yahoo.co.jp

At first, I want to start with the two questions.

1. Are the difficult problems of modern civilization combined with the character of “logos-centrism” deeply?
2. Is the character of “logos - centrism” too belligerent?

What are the difficult problems of modern civilization ? They are global destruction of nature and global endless civil wars and global economical instability. If we didn't do anything, we faced the tragic catastrophe. Especially, the accident in Fukushima seems to be very symbolic.

The “logos-centrism” was criticized by many modern philosophers like Heidegger. The post-modern philosopher ,Jacques Derrida is famous for “deconstruction”¹ of it. He criticized it by saying “hidden desire to remove other people”. I want to criticize the belligerent character of “logos-centrism as the negative side of that like shadow. I think that it is the influence of our relationships.

By the way, is modern civilization very greedy and arrogant against nature of our Earth and others ? Because, it robs resources from the earth and fights for them. It doesn't like the way to co-exist and reconcile , but the greedy and arrogant way. At least, it seems to be hostile and fighting against nature and others.

I believe that the statements are very true expression of the relationship between human and human thought.

: The lifestyle of human being and the attitude for the environment affect human thoughts and the perspectives. On the other hand, human thoughts and the perspectives affect the lifestyle of human being and the attitude for the environment.

Marx said “Beings define consciousness”². I think it is very dogmatic and not scientific. On the other hand, the statement is more fair than Marx. According to the statements, there might be the possibility that the greedy and arrogant character of modern civilization are combined with the character of modern thoughts.

Almost of modern orthodox thoughts have the strong conviction for “reason”. For example, modern

¹ The origin was “Abbau, Destruktion” which Heidegger used . Jacques Derrida translated it “deconstruction”. He wanted to use it more positive. He took down monoliths in traditional philosophy to find new interpretations by it. It doesn't mean to destroy.

² “Zur Kritik der Ökonomie” 1859 . Marx.

I think materialistic productions usually premise on many human understandings . So, I consider it a kind of dogma .

science has the faith for theoretical reason. Such a faith was originated from the tradition of “logos-centrism”.

We cannot define “logos”. Now, it means “reason”, “logic”, “word” and “meaning”. “Logos” means talking and more originally distinction and gathering. In modern English, the origin of “catalog” and “category” were “logos”. First, “category” was used by classical logic.

But, “logos” isn’t written language, but rather than spoken language. because the spoken language is more originally and from soul or mind. It almost meant the voice of self.

Reason is ability to distinguish and judge by “principle”. Logic distinguishes truth from false in thinking. Words distinguish many things in the word.³

After early modern times, Descartes conducted the revolution of the history of logos. He established “thinking ego” or “reasonable ego”⁴ as human subject. It doesn’t depend on any object. The subject has completely been distinguished from any object. The schema of “subject/object” was established. Modern science can have universal knowledge by the schema. Because it can remove subjective and self-satisfaction from objective knowledge. But, it revolutionized the concept of truth. It has meant “the correspond between subject and object”. The Problem occurred “how possible”.

Kant interrupted object as “Gegenstand” in our experience. In his subject-ism human universal subject is the law maker to object in experience. Nature is obeyed by subject as the law maker. So, the concept of truth became possible. But, we can only know phenomena, not thing in itself. If we would know things beyond experience, we couldn’t construct object and know nothing⁵. On the contrary, we should fall in antinomies.

Antinomies mean self-contradiction, self-destruction. It means strange fate that reason struggles itself. Kant avoided the fate by distinction between phenomena and thing in itself. But, in region of the theoretical reason, so about the totality, the reason (logos) can only avoid self-contradiction, antinomies. Kant asserted that the practical reason can realize identity of reason⁶. He thought the fate that reason struggles itself was negative. So, he couldn’t conquest the dualism about real changing world.

On the other hand, Hegel thought “contradictions is truth of reason and Dialectic is real logic in thinking and logic about real changing and moving world”. He considered the fate that reason struggles itself is positive and knowing it is the real self-cognition of reason (logos). So, about the totality, the identity of reason can be realized by itself. The identity of reason can include totality of the world.⁷

³ “Kritik der reinen Vernunft (Critic of pure reason)” B356, A405

⁴ “Discours de la méthode, Essais” 1637. Descartes said “cogito ergo sum (I think, therefore I am)”. So, “res cogitans (thinking ego)” doesn’t completely depend on material substance.

⁵ “Kritik der reinen Vernunft (Critic of pure reason)”, Die transzendente Analytick (the transcendental analysis). Kant insisted that the principles of science can be applied only to phenomenal world.

⁶ “Kritik der praktischen Vernunft (Critic of practical reason)”

⁷ Hegel insisted that the absolute idea have own unity which include all things and such a object for itself. The absolute idea is pure

So, accepting the necessity to struggle itself for change and evolution means a kind of completion for reason itself. After that, philosophy can only be advanced the reality which reason can not grasp, especially “existence”⁸. And Marx criticized Hegel for the thought of “absolute spirit”. Marx used dialectic too. But, He thought the subject of evolution was not “spirit” but “material things”⁹. Both of them are considered to be dogmatic. Because both are based on almighty of thinking. Lastly, in the battle of ideologies, there was no winner. We heard “the end of history”¹⁰ or “the end of big story”. Only, analytic experimentalism and linguistic turn¹¹ is the greatest evolution about “logos” in the 20th century.

Logos has a kind of radical root. Because logos can only deny logos. Deconstruction can not deny it. It could dislocate logos-centrism by pointing impossibility of pure elemental divisions which metaphysics is based on. And he reveal the desire to remove others of pursuing them.

Is it enough to accept neutral criticisms? Can we abandon “logos”? I think we don’t have to abandon the tradition of “logos”. But, at the same time, I have to recognize the negative side of it. I want to call it “the shadow of logos-centrism”

Modern technology seemed to give us the great future, if we could keep some principle of duty. For example, the duty of disposal, the duty of recycling, the duty of reprocessing of waste material, and the duty of containment and so on. The concept of duty means “Pflicht”¹² which Kant called in German. It means actions which we do unconditionally to do.

But, my thought was changed after the accident in Fukusima. I felt the different realities between the theoretical knowledge and the practical action or reality.

We can pursue the purest completion of the theoretical knowledge. Although, it is limited. And we sometimes fall in nonsense self-contradictions. For example, in the ethics, we can not define the concept of good. Kant could only make us have the insight of the absolutely moral law, good will, or duty. We can not define it, but we can know it by something like intuition. I believe we have moral

reasonable concept. It belongs to reason itself (der absolute Geist) as subject and object. . Dialectic of reason synthesize every opposition and contradiction. But , I can find his ego-inflation. Because reason doesn’t have enough power to integrate everything. He ignored the possibility to exist Others for reason.

⁸ For example, existentialism criticized Hegel that his philosophy can not distinguish existence from essentials . Only existence have human subjectivity. So, his philosophy ignores individual human subjectivities.

⁹ We called the materialism “the dialectic materialism (Dierektiker Materialismus)”.

¹⁰ The End of History?, a 1989 essay by Fukuyama published in the international affairs journal The National Interest

¹¹ The thought means that reality which we can know is conditioned by language. The thought of Wittgenstein is considered to be one of the origin .

¹² “Kritik der praktischen Vernunft (Critic of practical reason)” Immanuel Kant

“Grundlegung zur Metaphysik der Sitten (the foundation for metaphysics of morality)” Immanuel Kant
His ethics began to analyze daily moral word. For example, “Pflicht (duty). I think he started it from apriority (aprioprität) in living world (Lebenswelt).

commonsense a priori. ¹³

In quantum physics, we have to accept “uncertainty” or “ambiguity”. We should give up reasonable continuity and the pure completely. We can only get ambiguity totality. Mind and matter are deferent aspects of the same “event” or “reality”. The schema of “subject/object” hasn’t enough validity. ¹⁴

About more realistic and practical things, we can promote the nuclear reactors or plants in the theoretical view point. Of course, we must strictly keep the principles of duty. We can develop high-level derivatives, if we could minimize risks. But, we can not stop the movement of post-nuclear plant and now many people don’t like high-level derivatives. It is difficult to refuse neo-con theory. But, many people can not believe it.

If we had more objective perspective, we always fall in some nonsense exclusive conflicts which require to decide whether right or not. Almost of the questions are nonsense. And in the world of logos (philosophy) the main battle was already over. But, many people continue fighting by logos. In some cases, the battles become more violently.

In eastern world, two wise men stopped their battle before becoming violent. They said “It is a illusion (not true)”. Buddha said “the truth is one. So, any controversy can not exist.” And he said that real truth is only practical, essentially not words. ¹⁵

A master of Zen stopped the battle that young monks were fighting over the theory. The battle was over a little cat. The master killed the cat. The young monks were very shocked and regretted it deeply. Another excellent disciple returned to the temple and heard the accident. The master asked him what he should have done. He put his sandals on his head. He wanted to express that you are putting the cart before the horse. We, Japanese called such a case “honnmatu—tentou (本末転倒)”. I was interested in the difference of their characters. ¹⁶

In the eastern world, many different traditions from logos-centrism exist. I felt something peaceful about them. From the more bigger worldview, logos is very useful to make things clear and distinguish complicated things. Especially, it is most useful to put things in order. But, we sometimes use logos for nonsense battles. The worst is to use it for violence. I want to call such a type of thoughts “ultra—logos”. Why such things occurred? One of the image of the action of logos is to cut. I associated with the scene where a hero cuts a dragon. The dragon symbolized something like chaos. Logos represents a person who likes conflict. I’m sorry that I was too subjective. What is the shadow of “logos—centrism”? I think to

¹³ Kant would prove “moral law” It was result of analysis “good will”. But, He could only take impossibility of demonstration of it. The process meant that good “of good will be defined by the conditions of will. So, he tried to substitute the complex of conditions for the concept of good.

When we define a concept, we always substitute the complex of conditions for the concept. But, we can only say that good is good. The concept of good is too simple to define. For example, the concept of red is too simple to define. But, we can know it by intuition in real experience and feel something necessary. I think we have commonsense which have apriority.

¹⁴ It means “uncertainty principle”. When the combination of two physical quantities are measured, we can not measure them without uneven measured value.

¹⁵ Suttanipata 884

¹⁶ 「無門漢」14. This story teaches “*transcended beyond dual oppositions*”. We usually look down “sandal” or “cat. The master and his excellent disciple denied such a discrimination as a illusion.

cut relationships is it. Sometimes we may distinguish, but must not separate things. This shadow affects our modern lifestyles and attitude to our environments. The greedy and arrogant character of modern civilization are combined with the character of modern thoughts.

I think that some modern thoughts have the belligerent character of logos-centrism. The conclusion is to respect “relationships” between nature of the earth and others. Greedy destroys relationships. We need the view point of relationships, when we use logos. I think the way to co-exist and reconcile is our new hopeful lifestyle. One question is left. Why the Controversy over words or thinking become violent ?

Gandhi practiced “nonviolent resistance” for independence of India. He thought that nonviolence is to practice truth. His nonviolence is called “ahimsā” and it is based on the great tradition in Indian philosophy. Buddha taught “ahimsā” too. Gandhi had the strong conviction that the truth can get final victory and to grasp the truth is most important. ¹⁷

For Buddhism, practice is most important and it based on compassion and wisdom. The truth is called “dharma”. The truth, “dharma¹⁸” means practical truth without exception. Because of such universality, the practical truth “dharma” is true. Everybody must practice practical truth without exception. It is the ground that Buddhism considers itself absolute. Gandhi and Buddha believe the “ahimsā” have essentially such a universality.

It naturally denies any discrimination and based on compassionate relationships. The thought affirms intellect that denies to distinguish. The concept of intellect is different from the concept of intellect belongs to “logos—centrism”. Because it denies to distinguish.

It belongs to the type of thought “ultra—logos”. If we will practice truth based on compassionate relationships like “ahimsā”, we should transcend any discrimination by the “ultra—logos” intellect. In Buddhism, it called “Prjānā—pālamitā” ¹⁹. We, Japanese called “Hannnyaharamituta (般若波羅蜜多)”. Words and teaching by words and theory is only tools, not ultimate purpose for them. The usual “logos—centric” intellect has the danger to cut compassionate relationships. I don’t want to advocate Buddhism or tradition of Indian philosophy. But, I would compare them with “logos—centrism” from the view point of relationships.

In the western world, I think that “Trinity” belongs to “ultra—logos” type and orthodox Christianity need it to express divine and compassionate relationships or communications. There is danger to cut the holly relationships or communications by the “logos—centric” intellect. ²⁰

I think that we must reconstruct “next lifestyle of human being and the attitude for the environment”. We should reflect the shadow of “logos—centrism” and create the way to co-exist and

¹⁷ “The story of My Experiments , with Truth”, 1927–29 , Mohandas Karamchand Gandhi

¹⁸ It means originally “keeping” and change eternal truth to keep human being as human . So, “dharma” should be practiced by everybody without exception.

¹⁹ It means “wisdom to reach ideal state (the opposite bank of the river) .” We called the opposite bank of the river “higan (彼岸). Ideal state means transcend beyond dual oppositions. Cf. 16

²⁰ It means the different three persona , God, Christ and holly spirit is same one God. It is considered to be the heart of Christianity.

reconcile beyond any difference, any discrimination and opposition to avoid tragic catastrophes in our future. We must create “new uniting symbol beyond oppositions” to save ourselves.

What are the oppositions that cause the disease of modern civilization? For example, global destruction of nature are caused by the opposition between human being and nature. The most serious opposition is a kind of division. global endless civil wars are caused by the gap between rich and poor people or many irrational discriminations. global economical instability are caused by global economical gap and the difficult to keep and control global economical balance.

We can find the common structure of cause of the diseases. It is division or split. It is considered to be destruction of relationships or communications. So, the things that lead to “integration” are good. On the other hand, the things that lead to “division or split” are bad.

If we don't have perspective of value of relationships, we can not find it. So, the way to co-exist and reconcile is “integration of oppositions”. We have to integrate the division between “logos—centrism” and “ultra—logos”. About technology, energy and styles of industry or production, We should integrate human being and nature. About lifestyle, we have to integrate work and life.

The conclusion is that the things that lead to “integration” are good and the things that lead to “division or split” are bad. It isn't absolute, only to resolve the difficult problems of modern civilization. But, I think that “logos—centrism” “hasn't enough power to integrate reasonable things and unreasonable things.

So, We had reflect the belligerent character of logos-centrism for it. Which attitude we should choose “post—nuclear plant” or not? I believe we have to think recyclable energy from the view point. If we want to avoid the tragic catastrophe, we should conquest and integrate many oppositions in modern civilization.

I think that the character of the thought of Whitehead is the exact opposite of the philosophy of Kant. For example, the thought of Whitehead is cosmological. On the other hand, the philosophy of Kant is ideological. In the philosophy of Kant, the subject constructs objective world. For the thought of Whitehead, “subjects is born from living world”²¹. The world of whitehead is consistent organic. On the other hand, the philosophy of Kant, he tried to conquest the dualism between the mechanical world and the organic world. But he couldn't it²². For Wittgenstein, “I” is the limit of world²³. I found that Kant and Wittgenstein did self—restriction on the possibility of cognition and linguistic and they have cut off fertile world and uncertain world. On the other hand, the thought of Whitehead is about such a world.

Although, I would defend Kant and Wittgenstein, because of their honesty and sincerity. They had strong conviction that knowledge, philosophy and science must have strict certainty. But, “the world of living, organic and creative world” can not remove uncertainty and unreasonable things.

²¹ “Process and reality”, 1929., Alfred North Whitehead

²² Kant tried to resolve it in “Kritik der Urteilskraft (Critic of the power of judgment)”.

²³ “Tractatus Logico—philosophicus” 1921. 5 · 62

Of course, they believe such a world without skepticism. They shouldn't talk about it as knowledge by reason or words. Wittgenstein believed in god and absolute value. But, he said he couldn't talk about it²⁴. He liked to read the Gospels. Kant strongly believed in god at first. But, he strictly demonstrated impossibility to recognize it by theoretical reason²⁵. For them, precision and strict certainty is most important. I could find that the world of living, organic and creative world exists without skepticism by Whitehead.

But, I have some honest questions about his thought. Why did he use language to express his thought? Is the world of living, organic and creative world too direct to use words? Where is "death" in such a world? I felt that "death" might be more ignored in real world.

By the way, what is "epoch"²⁶ in time? I can not understand the concept. It means "discontinuity of continuity" in time. I guess the origin is from quantum physics. From the view point of "logos-centrism", I think his theory of time belongs to "ultra—logos" type. It is beyond distinction of "logos". And his some concepts is very important for relationships. Especially, "prehension", "feeling" and "process"²⁷. So, I have a strong conviction that the thought of Whitehead contribute to resolve difficult crisis of modern civilization in the 21th century.

²⁴ "Tractatus Logico—philosophicus" 1921. 6.5—7

"Wovon man nicht sprechen kann, darüber muss man schweigen. (man must not say any thing which man can not speak about.)" (6.7)

²⁵ "Kritik der reinen Vernunft (Critic of pure reason), B595—696, A642—668

²⁶ "science and the modern world" 1925, Alfred North Whitehead

²⁷ "Process and reality", 1929, Alfred North Whitehead

**Needle, Hook, Relational Wisdom:
The Prayer Shawl Ministry As Creative Engagement With Fate**

Donna BOWMAN (University of Central Arkansas, U.S.A.)

donnab@uca.edu

Abstract

Formally organized and publicized in 1997, the Prayer Shawl Ministry movement arises out of feminist theologies that seek to embrace the divine feminine and celebrate women's experiences. This paper is part of an ongoing study of theological concepts and commitments, both assumed and explicit, that undergird Prayer Shawl Ministry (PSM) groups in settings across the religious spectrum. An analysis of the primary and secondary literature raises questions about how PSMs understand their activity in the face of the situations into which it is inserted -- situations where outcomes frequently cannot be controlled. Prayer shawls are made by hand by ministry participants, then given to recipients identified through either formal and delineated processes, or through serendipitous encounters. The purpose of the prayer shawl reflects the maker's understanding of how such an object intersects with the occasion perceived in the recipient: as a healing talisman, evidence of caring, a tactile blessing, or a memento of a significant moment. Reports from the movement's documents stress divine guidance in the identification of recipients, choice of materials (such as a particular color that turns out to be meaningful to the recipient), and timing of the gift. Victoria Cole-Gallo, one of the movement's founders, expresses this orientation toward and belief in divine direction: "When you open your heart, people who need shawls will start showing up in your life" (Christiansen 2006). Meaning is also discerned in outcomes, but movement participants embrace a wide range of evidence that their work has been effective -- not just miraculous recovery. The movement thus draws participants' attention to both ends of the spectrum of agency. In handcrafting a prayer shawl, the maker exercises agency and creativity, even mastery, bringing into existence a new concrete reality from the application of skilled labor over time to constituent materials. When relinquishing that shawl, an occasion imbued with meaning through rituals either formal or informal, attempts are made to pass along a particular set of concepts, emotions, or bonds of relationality with the gift. However, control over the object's use, meaning, and effectiveness is also relinquished, and participants then seek signs of their agency not in particular hoped-for outcomes, but in the relationships so forged, signalled, and sought. Whiteheadian notions of decision, aim, and perishing are effective ways of categorizing and conceptualizing this striking attempt to affirm and celebrate both active and receptive poles of the creative flow. As humans

seeks wisdom to live with what they cannot change (in the past, and in present forces beyond our recall), the Prayer Shawl Ministry provides a model of a theology emerging from the concrete process of making, giving, hoping, and reflecting. This theology celebrates our co-creativity with the divine and insists on our agency, but assigns neither to us nor to the divine the power to escape fate, locating instead the intersection of divine and human activity in altered internal relations and connecting these intrinsically with material interactions.

Harmony, Attribute of the Sacred and Phenomenal.

John T. BRINKMAN (Commission on Ecology and Religion, Japan)

comecore@yahoo.com

Abstract

The interrelatedness and harmony of all things is thematic and common in Buddhist and Christian thought with particular references to the thought and cosmology of Kobo Daishi and St. Thomas Aquinas. Kukai's essay, "Attaining Enlightenment in This Very Existence" (Sokushin jobutsu gi) and Aquinas' commentary on the Divine Names of Dionysius (*in Librum Beati Dionysii De divinis nominibus exposition*) are of particular reference.

Kukai and Aquinas conclude that all things constitute one community. Their resonant insights into the integrity of the natural world and its numinous quality function in quite distinct spiritual traditions. The primary focus and emphasis in Kukai's vision of the universe is best described as an Abiding Center of Rest, the sacred quiescence of Mahavairocana Buddha. The metaphysical vision of Thomas offers a Future Goal of Attraction. Divine Peace is registered in the impulse, the tendency to be united with the One Final Cause. These traditions could not be more distinct. Yet, similarities between these two profound and independent systems of thought, despite all their deep and profound differences, are striking.

Hosshin seppō and *Ipsum Esse Subsistens* turn the wonder of our journey from empty uncertainty to the inspired conviction that what can-not be known in itself, is truly comprehended in the bloom of a spring blossom or the radiance of an autumnal moon as insight into the inner mystery of their phenomenal manifestation. The thought of Kukai and Aquinas present the totality of the universe and its movement as the context conducive for human awareness to encounter and be present to the sacred. The integral

functioning of the natural order of things affirmed as “provisional” or “engraced”, “illusory” or “real” constitutes the primary mode of revelation of the ineffable enlightenment of Buddha and of the incomprehensible simplicity of God. In each tradition the ultimate term of reference is present to all phenomena in a profoundly enhancing manner. Kukai and Aquinas offer from quite distinct traditions and from unique perspectives within these traditions that the ordinary stuff of our existence is shimmering with the numinous: meaning and grace.

This is the essential “stuff” of ecological resolve and of the resolution of the alienation of the human community from the natural community. The essential need for the sacred in the project to readjust our human presence to the natural world is best confirmed in the preface to the work: *When The Trees Say Nothing*: “...The deep psychic change needed to withdraw us from the fascination of the industrial world and the deceptive gifts that it gives us, is too difficult for simply the avoidance of its difficulties or the attraction of its benefits. Eventually, only our sense of the sacred will save us.”¹

¹ In the preface to Kathleen Deignan’s work on Thomas Merton, *When the Trees Say Nothing: Writings on Nature*; we are informed by Thomas Berry: “An absence of a sense of the sacred is the basic flaw in many of our efforts at ecologically or environmentally adjusting our human presence to the natural world. ...There is a certain futility in the efforts being made—truly sincere, dedicated, and intelligent efforts—to remedy our environmental devastation simply by activating renewable sources of energy and by reducing the deleterious impact of the industrial world. The difficulty is that the natural world is seen primarily for human use, not as a mode of sacred presence primarily to be communed with in wonder and beauty and intimacy. ...The deep psychic change needed to withdraw us from the fascination of the industrial world, and the deceptive gifts that it gives us, is too difficult for simply the avoidance of its difficulties or the attractions of its benefits. Eventually only our sense of the sacred will save us.” Kathleen Deignan, *When the Trees Say Nothing: Writings on Nature* (Sorin Books, Notre Dame, In. 2003) pp.18-19.

Environmental Moral Philosophical Review on the Logic of "City Charm"

CHEN Aihua (Southeast University, China)

18912953691@163.com

Abstract: It is “city charm lies in comfort and ease or development opportunity” that becomes the hot topic of “A Wish to Youth: the World Expo Debate of Cross-Straits four Areas Universities in 2010”. Almost all the debate teams in the participating universities are required to interpret the topic in order to be promoted. Although the debate involving this issue has rounded off and the World Expo 2010 has brought to a successful close, the author continues thinking of this issue. Some opinions on this issue in the horizon of logic and environmental moral philosophy will be presented here to draw forth valuable comments.

Why can such concepts as “comfort and ease”, “development opportunity” be used to annotate the attribute of “city charm”. The reason is that “city” concept reveals a pair of the core relationship between cities, their environments and people. Cities and their environments are deeply marked with the human imprint both in their formation and in the course of their development. Urban development and environment construction not only create more and more opportunities for human development in cities but also create more development chances by utilizing their own location advantages and unique resource advantages. At the same time, development paradox of some cities appears. The first one is the paradox between city-technology-economy and environment. And the other one is the paradox between urban economy and energy resources. Based on the introspection of the two paradoxes, such slogans as comfort and ease, city life more beautiful are presented as value orientation of the construction of cities and their environments. Firstly, comfort and ease represents human pursuit for the True, the Good and the Beautiful of urban development and environment construction. Secondly, comfort and ease embodies the logic of urban life including the harmony between people and cities with their environments, urban interpersonal harmony, and the coordination of urban landscape and nature.

Key words: city charm; development opportunity; comfort and ease

Ecological wisdom in Daoism

FAN Meijun (Center for Process Studies, U.S.A.)

Abstract

In this paper, I would like to focus on answering the question: is there ecological wisdom in Daoism? Can Chinese find a solution by simply returning to it to solve the serious ecological crises they are facing today? I will address the topic by touching on three areas.

- I. Returning to Dao
- II. The ecological wisdom in Dao.
- III. The relevance of Dao for today

I think Daoism could not offer us a solution to deal with the ecological crises we are facing today, but wisdom. To more effectively respond to the challenges from the ecological issues, we need to open ourselves to other wisdom, especially to Whitehead organism.

I. Returning to Dao

China was so modernized that there was rarely room for Chinese own tradition. This had taken place since the beginning of 20th century, the May 4th movement. The reason I pointed out in my book¹ published in 1997 was that the modernization was to some extent anti-Chinese tradition. This means that there is no tradition if there is modernization. Therefore, Chinese people have to throw their tradition away as trash in order to welcome modernization. This is the price Chinese have to pay for the modernization.

In 2002, I came to Claremont as a visiting scholar at Center for Process Studies. This was my important encounter with Process thought or Whitehead's philosophy. My life experience in Claremont has offered me a new way to rethink my own tradition. Unlike other Western modern philosophies, there is plenty of room in Whitehead's philosophy for every tradition. It encourages them to rethink their unique role in modern society and to transform themselves from the old time to the present period. From a Whiteheadian perspective, every tradition is not trash, but treasure, in deed. Especially in today society, every tradition has its own value and role, which could not be replaced by other traditions, to deal with the ecological crises the mankind is facing today.

Back to my own tradition, here, firstly, I would like to focus on Dao in order to find ecological wisdom in Daoism as philosophy. Secondly, I would like to argue that can Chinese solve the crises by simply returning to Daoism? Thirdly, I would like to state that Chinese must open themselves not just to their traditions such as Daoism, but also to other wisdom, especially to Whitehead's organism in order to have more effective response to the crises they are facing today.

I. The ecological wisdom in Dao.

i. From the etymologic perspective

道 (Dao) as a Chinese character, has two parts: 首 and 辶. The radical of 辶 means going, walking. The part of 首 means head. Together, it 道 means the way, road or path people are going on, direction or goal people are going to, the principle they are practicing, etc. In a word, Dao is movement.

ii. From the Daoism perspective

1. Dao as Endless Creating: Becoming

¹ Meijun Fan, *Contemporary Interpretation of Chinese Traditional Aesthetic*. Beijing: China Social Science Publishing House, 1997

In Daode jing,

Chapter 1: “Tao that can be defined is not the Eternal Tao. Names that can be named are not the Eternal Name.”² (道可道，非常道。名可名，非常名。)

Chapter 32: “The Dao is nameless for ever.” (道常無名。)

In Chap 2 on the uniformity of all things of Zhuangzi’s Inner chapters: 《莊子 齊物論》: ” The Dao goes beyond description.The Dao that is manifest is not Dao.”(大道不稱。……道昭而不道)

Laozi and Zhuangzi had pointed out that Dao is nameless. Any name could be a limitation for Dao which is infinite and the wholeness.

Hence, it’s very difficult to describe Dao. Dao has no name and no form, only uncertain look like something. However, when Laozi said Dao as a thing, even it looks uncertain, it is not absolutely nothing. There is true image, information and essence in Dao.

In Chapter 21 of Daode jing: “Dao as a thing is vague and indefinite. There is images in vague and indefinite; there is substance in indefinite and vague; there is semen-like essence in distant and dark, the essence is a genuine existence, it can be tested as true.”(道之為物，惟恍惟惚。惚兮恍兮，其中有象；恍兮惚兮，其中有物；窈兮冥兮，其中有精，其精甚真，其中有信。)

Further, Laozi said that Dao is before heaven and earth and produces every thing.

In Chapter 4: “I do not know whose son it is, it seems to have appeared before the existence of God.” (吾不知誰之子，象帝之先。)

In Chapter 25: “There is a thing integratedly formed, and born earlier than heaven and earth. Silent and empty, it relies on nothing, moving around for ever. We may regard it as the mother of all things. I do not know its name, so I barely named it as Dao, and further named it as the Great. The Great is moving forward without stopping, extending to the remotest distance, and then returning to where it was.”(有物混成，先天地生。寂兮寥兮，獨立不改，周行而不殆，可以為天下母。吾不知其名，字之曰道，強為之名曰大。大曰逝，逝曰遠，遠曰反。)

Therefore, Dao is the endless movement.

Laozi took a cup as an example in Chap 4. As endless creating, Dao looks like an empty inside, but cannot ever be filled it up no matter how much it has been used, using it more, and more will come out. (Chap 4: 道沖，而用之或不盈。淵兮，似萬物之宗。……Chapter 5:天地之間，其猶橐籥乎，虛而不屈，動而愈出。)

Here, Laozi kept describing what Dao looks like. Dao Likes a whole and is before heaven and earth. Its sound and form cannot be heard and seen, but it is in a process of a movement which is endless and always back to its origin. It can be a mother for every thing. Its capacity of creation is never used up. Therefore, Dr. Hank Keeton and I would like to translate it as Endless Creating in English.

2. Dao as Wu and You: possibility and actuality.

Dao has two aspects: Wu/nothingness and You/being. People usually ignore Wu/nothingness and don’t think it is crucial for an occasion. Whereas Laozi had put so much attention on Wu/nothingness.

In Chap 1 of Daode Jing., he point out that Wu is beginning of heaven and earth and people can realize how deep, how subtle and how wonderful Dao is from Wu/nothingness aspect. Wu/nothingness means nameless (無名), formless (無形), useless (無用), contention-less (無爭) and action-less (無為), etc. (“無，名天地之始；有，名萬物之母。故常無，欲以觀其妙；常有，欲以觀其徼。此兩者同出而異名，同謂之玄，玄之又玄，眾妙之門。 ”)

Dao also has You/being aspect. You is mother of thousands occasions. Dao’s border can be perceived

² Wu (non-being) is called the origin of heaven-and-earth; You (being) is called "the Mother" of all things.

“Therefore let there always be non-being, so we may see their subtlety, and let there always be being, so we may see their outcome.

The two are the same, but after they are produced, they have different names.

They both may be called deep and profound. Deeper and more profound, the door to all subtleties!”(The trans. By Wing-Tsit Chan, 1963)

from You's aspect.

Furthermore, Laozi thought that Wu and You emerge from the same source but with different name. Both of them can be called mysterious, the mysterious of mysterious is the door to subtle. Therefore, Dao is unity of Wu and You. It cannot be understood fully without one of them. Without You, Wu will be absolute nothingness; without Wu, You/Being cannot have its proper function. In chapter 11, Laozi took examples to explain how Wu and You work together. Without one of them, another will be usefulness.

“Thirty spokes share one hub. It is just the space (the nothingness) between them. That makes a cart function as a cart. Knead clay to make a vessel and you find within in the space that makes a vessel as a vessel. To build a house with doors and windows and you find within them the space that makes a house function as a house. Hence the Being (substance) can provide a condition under which usefulness is found, but the Nothingness (space) is the usefulness itself.” (Gu Zhenkun) (三十輻，共一轂，當其無，有車之用。埴埴以為器，當其無，有器之用。鑿戶牖以為室，當其無，有室之用。故有之以為利，無之以為用。)

Hence, Laozi said in chapter 40 that “The ten thousands occasions are born from the You/being, and the You/Being from the Wu/nothingness.”(天下萬物生於有，有生於無)

Because of You/Being, Wu/ nothingness are not absolute nothingness. It is nameless and formless which means it is possible to become any name, any form, and any occasion. Therefore, Dr. Hank Keeton and I translate Wu/nothingness as possibility.

You is the result of actualizing of Wu/possibility, therefore, we translate You/being as Actuality. Dao as the endless creating is always in a process of becoming: Wu becomes You and You becomes Wu; an opportunity becomes actuality and an actuality becomes an opportunity. One becomes many and many become one.

3. Dao as the mother to the ten thousand occasions.

As I said before, Dao's major job is to create, to give birth, to produce ten thousand occasions. Hence, Dao is the mother to the ten thousand occasions.

In chapter 42 of Daode jing, Laozi said that “Dao begets the one; the one consists of two, the two begets the three; the three begets the ten thousands things. The ten thousand things connote the Yin and Yang. The Yin and Yang keep acting upon each other and thus things keep changing and unifying themselves.” (道生一，一生二，二生三，三生萬物。萬物負陰而抱陽，沖氣以為和。)

In Daode jing, Laozi often described Dao as mother of the ten thousand things.

淵兮，似萬物之宗。

可以為天下母。

有，名天下之母。

Here, I would like to point out that Dao as endless creating is nothing more, nothing less. In Chapter 10 and 51, Laozi said as a mother, Dao

It lets all things arise, but claims no authority.

It creates the myriad, but claims no possession.

It accomplishes his task, but claims no credit.³

(“生而不有，為而不恃，長而不宰，”)

Dao has given life to all occasions without claiming to be their owner, benefited them without claiming to be their benefactor, and been their head without ruling them. Dao merely gives birth to thousands occasions, it doesn't interfere their growing and development, just leave them alone and let them be themselves. There is no possession, no show off, no ruling, no mastery, merely endless creating. That's all about Dao.

4. Every occasion is equal to other occasions in Dao.

In western world, there is saying, every one is equal in the face of God. In Daode jing and Zhuangzi, not just every one, but every thing, all occasions is equal in the face of Dao, human beings and animals,

³ Chapter 2, Daode jing.

animals and plants, rivers and mountains, because they come from the same source, Dao. They have the same mother. They are brothers and sisters. On this level, human beings are not different from others, they are a part of the nature, as the same as other things on the planet.

In *Chap 2 On the uniformity of all things of Inner Chapters in Zhuangzi*《莊子·齊物論》, “So let’s take for consideration the stalk and the pillar, the leper and the beautiful Xishi, and all sorts of strange things and fantastic phenomena---they are all one from the viewpoint of Tao.”⁴(故為是舉莖與楹、厲與西施、恢怪，道通為一。)

From Dao’s perspective, small grass and big wood, the ugly and beauty are same because all of them come from Dao.

“There is in the world nothing greater than the tips of the downs of a bird in autumn while Mount Tai is tiny. There is no one who lives longer than a dead baby while Peng Zu, who lived over 700 years, died young.”⁵(天下莫大於秋豪之末，而大山為小；莫壽於殤子，而彭祖為夭。)

In summery, Zhuangzi said that “from the viewpoint of Tao, there is nothing noble or mean.”(《莊子·秋水》：“以道觀哉，何足貴賤。”) Human beings are not more valuable than others, they are not a center of planet, and they are just as same as others. Laozi said in chap 5 of *Daode jing*:

“Heaven and earth are not merciful, they treat the ten thousand things as straw dogs; the sage is not merciful, he treats the people as straw dogs.”(天地不仁，以萬物為芻狗；聖人不仁，以百姓為芻狗。) Dao treat every thing equal. It doesn’t like something more, and others less.

In *Chap 2 on the uniformity of all things of Zhuangzi, the Inner Chapters*. 《莊子·齊物論》, Zhuangzi asked the questions:

“If a man sleeping in the damp is liable to get a back-ache or half-paralysis, will the same thing happen to an eel? If a man sitting in a tree is liable to tremble with fear, will the same thing happen to an ape? Of the man, the eel and the ape, who knows their proper place to live in? Men eat meat; deer feed on grass; centipedes are fond of snake; owls like rats. Of the man, the deer, the centipede and the owl, who knows the right test? An ape mates with a gibbon; a buck seeks after doe an eel plays with fish. At the sight of Maoqiang and Xishi, beauties admired by men, the fish will dive into the deep water, the birds will soar high in the sky, and the deer will take to their heels. Of the man, the fish, the bird and the deer, who knows the real beauty?”⁶(“民濕寢則腰疾偏死，然乎哉？木處則惴恟懼，猴然乎哉？三者孰知正處？民食芻豢，麋鹿食薦，蛆甘帶，鴟鴞耆鼠，四者孰知正味？狙以為雌，麋與鹿交，與魚遊。毛嬙麗姬，人之所美也，魚見之深入，鳥見之高飛，麋鹿見之決驟。四者孰知天下之正色哉？”)

Therefore, Human beings should stop looking down upon others such as animal, plants and even rocks because all of us came from the same mother, Dao. People should pay sincere respect to others and to the whole nature.

Every occasion, no matter how different it is from us, we are all just one body.⁷ Other species, therefore, are not objects in the front of us; “All people are my brothers and sisters, and all things are my companions.”⁸

To respect to others, or to the ten thousand things, means human beings should respect their existence, their difference, don’t try to use human’s standards to modulo them. For example, if you want to appreciate beauty of flowers, you have to wait for their best moment, just as Yuan Hongdao (1568~1610), a famous scholar in Ming Dynasty, once said "You should choose the right moment and proper place to appreciate certain flowers. It is absurd to demand them when they are not in season. Winter’s flower are good to meet in the first snow, snow just stopped, new moon and warm room; spring flower are good to meet in sunny day, light cool weather and beautiful house; summer flowers are good to meet in after rain, quick wind, under bamboo and shadow, water pavilion; fall flowers are good to meet in clean

⁴ Zhuangzi, part 1, Hunan People’s Publishing House, 1999, P23,

⁵ Zhuangzi, part 1, Hunan People’s Publishing House, 1999, P29.

⁶ Zhuangzi, part 1, Hunan People’s Publishing House, 1999, P33.

⁷ 萬物一體。程顥(1032-1085)說：“人與天地一物也”，“仁者以天地萬物為一體”，“仁者渾然與萬物同體。” Wing-Tsit Chan: A source book in Chinese Philosophy, Princeton University Press, 1963.p.523

⁸ Wing-tsit Chan, trans., A Source Book of Chinese Philosophy (Princeton: Princeton University Press, 1963, p. 497.

moon, sunset, small path, empty steps, old rattan and next to crag rock. If you want to appreciate those flowers without any concern, it would like to go to wine bar and whorehouse. ⁹

Not just Mr. Yuan Hongdao, but many of artists, litterateurs and scholars in Chinese history have shared such a thought with Mr. Yuan. They felt that to appreciate flowers is not an easy thing to do, people cannot demand them to come to the front of them. They must “look plum flower after snowed; visit chrysanthemum before frost came, take care of orchid in rain, listen to bamboo out of wind.” (“雪後尋梅，霜前訪菊，雨際護蘭，風外聽竹。”¹⁰) They took very seriously to meet the ten thousand things.

Therefore, Zuangzi strongly againsted the way of treating others by using human beings' own standard. He told us stories.

“have you never heard about the story of a sea-bird that perched on the outskirts near the capital of the state of Lu? The sovereign went to welcome it and offered it wine in the ancestral temple. Jiushao music was played to amuse it, and pork, beef and mutton were prepared to feed it. Bewildered and sad, the sea-bird did not dare to eat a morsel of meat or drink a cup of wine. It dies in three days. The sovereign tried to take care of the bird as if he had been taking care of himself. To take care of the bird in its own way is to allow it to perch in the woods, to fly over the islets, to float on the rivers and lakes, to feed itself on eels and other small fish, to fly and rest with the flock and to live at ease.”¹¹ (至樂：昔者，海鳥止于魯郊。魯侯禦而觴之於廟，奏九韶以為樂，縣太牢以為膳。鳥乃眩視憂悲，不敢食一嚙，不敢飲一杯，三日而死。)

“The horses, living on the land, eat grass and drink water. When they are pleased, they cross their necks and rub against each other. When they are irritated, they turn round and kick each other. That is all for the instinct of the horses.”¹² (莊子，馬蹄

“夫馬，陸居則食草飲水，喜則交頸相靡，怒則分背相踢，馬知己此矣”) What happened when human treat them by man's standard? “Since the time of Bo Le who said, ‘I am good at handling the horses’, the horses have come to be branded, trimmed, hoofed, harnessed, tethered and stabled. As a result, two or three out of ten horses thus died. Men went so far as to subject the horses to hunger and thirst, made them race and gallop, trained them and disciplined them. The horses were afflicted with bits and reins in the front and threatened with whips and crops at the back. As a result, more than half of the horses died.”¹³ (及至伯樂，曰：“我善治馬。”燒之，剔之，刻之，錐之，連之以羈，編之以皁棧，馬之死者十二三矣。饑之，渴之，馳之，驟之，整之，齊之，前有櫛飾之患，而後有鞭箠之威，而馬之死者已過半矣。)

Further, Zhaungzi critiqued such a way to deal with the ten thousand things. He pointed out that in chap 8, *Webbed Toes*:

“To shape things with the try square, the ruler, the compass and the angle square is to weaken their nature. To fix things with strings, cords, glue and lacquer is to violate their qualities. To hold rites, to play music, and to propagate humaneness and righteousness in order to comfort the people is to discard the natural state of things. The natural state of things prevails in the world. To keep the natural state of things means to draw a curve without the use of a try square, to draw a line without the use of a ruler, to draw a circle without the use of a compass, to draw a square without the use of an angle square, to stick things without the use of glue or lacquer, and to bind things without the use of strings or cords.”¹⁴ (且夫待鉤繩規矩而正者，是削其性者也，待繩約膠漆而固者，是侵其德者也；屈折禮樂，响俞仁義，以慰天下之心者，此失其常然也，天下有常然。常然者，曲者不以鉤，直者不以繩，圓者不以規，方者不以矩，附離不以膠漆，約束不以索。故天下誘然皆生而不知其所以生，同焉皆得而不知其所以得。莊子，駢拇)

⁹ [明]袁宏道，引自《明清文人清言集》，中國廣播電視出版社，1991年，第78頁。

(賞花有時有地，不得其時而漫然命客，皆為唐突。寒花宜初雪，宜雪霽，宜新月，宜暖房。溫花宜晴日，宜輕寒，宜華堂。暑花宜雨後，宜快風，宜佳木蔭，宜竹下，宜水閣。涼花宜爽月，宜夕陽，宜空階，宜台徑，宜古藤、巖石邊。若不論風日，不擇佳地，神氣散緩，了不相屬，此與妓舍酒館中花何異哉！)

¹⁰ [明]陸紹珩：《醉古堂劍掃》，引自《明清文人清言集》，中國廣播電視出版社，1991年，第87頁。

¹¹ Zhuangzi, part two, Hunan People's Publishing House, 1999, P 293.

¹² Zhuangzi, part one, Hunan People's Publishing House, 1999, P 139.

¹³ Zhuangzi, part one, Hunan People's Publishing House, 1999, P 135.

¹⁴ Zhuangzi, part one, Hunan People's Publishing House, 1999, P129

In short, from Daoist perspective, every occasion is equal to others. Laozi and Zhuangzi especially warned our human beings of not trying to use human's standards to criticize and module the ten thousand things even their existence and features are so different from us.

5. Every occasion has value in itself through its own existence, not merely for what use it is to others.

Every occasion exist, this is its unique and intrinsic value and its contribution to the planet because nothing can replace it. Zhuangzi said there are two kinds of usefulness. One is called simply usefulness and means the use for others. Other usefulness is called the usefulness of useless and means the use for things selves. In his writings, Zhuangzi offered us many examples to show his emphasizing on the usefulness of useless.

In chap4, *Ways of the human world* of Zuangzi's Inner chapters, (莊子, 人間世), there is a story. A carpenter named Si saw a big tree on his way to State Qi. Many people came to see it, but the carpenter kept his walking without any stop. His pupil stopped there for a while to appreciate its beauty. After he catch his master and asked him why he didn't want to see such a beautiful tree? The master answered, this kind of trees has no any use. It cannot be used to make any furniture such as a door, wares, column and coffin. This is the reason why it can grow becoming such a huge tree.

At the night, the tree came to the master's dream and said to him, how did you compare me with those fruit trees which were useful to others. This was the reason why they could not have a long life. I kept my life in this way in order to be alive. I would die early if I have some use to others. This useless is my own use. How did you be such critical to me since you were just as the same as I was?¹⁵

Another story in Zhuangzi,

Nanbo Ziqi was wandering in Shangqiu when he saw a huge, grotesque tree, under with a thousand carriages and four could take shelter. Ziqi said, 'what kind of tree is this? It must be of unusual wood.' When he looked up, he saw that the branches are all twisted, not fit to be used for beams. When he looked down, he saw that the trunk was knotted, not fit to be used for coffins. When he licked at a leaf, it festered and hurt his mouth. When he smelled at the tree, he seemed to be deadly drunk for three days.

Ziqi said, "It is indeed a useless tree that has grown to this huge size. Ah! How similar is the holy man to the useless and worthless tree!"¹⁶

Zhuangzi had pointed out that human being knows use and don't understand what is the use of useless about.

"the mountain trees are felled by themselves---the axe-handle is made of wood; the grease is consumed by itself---it burns on the fire. Cinnamon is edible, and so the tree that yield it are cut down; varnish is useful, and so the trees that produce it are slashed. Everyone knows the usefulness of being useful, but does not know the usefulness of being useless."¹⁷ (山木, 自寇也; 膏火, 自煎也。桂

¹⁵ 匠石之齊，至於曲轅，見櫟社樹。其大蔽牛，絜之百圍，其高臨山十仞而後有枝，其可以舟者旁十數。觀者如市，匠石不顧，遂行不輟。弟子厭觀之，走及匠石，曰：‘自吾執斧斤以隨夫子，未嘗見材如此其美也。先生不肯視，行不輟，何邪？’曰：“已矣，勿言之矣！散木也。以為舟則沉，以為棺槨則速腐，以為器則速毀，以為門戶則液穢，以為柱則蠹，是不材之木也。無所可用，故能若是之壽。”

匠石歸，櫟社見夢曰：“女將惡乎比予哉？若將比予于文木邪？夫植梨橘柚果蔬之屬，實熟則剝，剝則辱。大枝折，小枝泄。此以其能苦其生者也。故不終其天年而中道夭，自培擊於世俗者也。物莫不若是。且予求無所可用久矣！幾死，乃今得之，為予大用。使予也而有用，且得有此大也邪？且也若與予也皆物也，奈何哉其相物也？而幾死之散人，又惡知散木！”匠石覺而診其夢。弟子曰：“趣取無用，則為社何邪？”曰：“密！若無言！彼亦直寄焉！以為不知己者詬厲也。不為社者，且幾有翦乎！且也彼其所保與眾異，而以義喻之，不亦遠乎！”

¹⁶ Zhuangzi, part one, Hunan People's Publishing House, 1999, P67.

莊子·人間世：南伯子綦游乎商之丘，見大木焉，有異；結駟千乘，隱，將芘其所賴。子綦曰：“此何木也哉！此必有異材夫！”仰而視其細枝，則拳曲而不可以為棟樑；俯而視其大根，則軸解而不可以為棺槨；舐其葉，則口爛而為傷；嗅之，則使人狂醒三日而不已。子綦曰“此果不材之木也，以至於此其大也。嗟乎，醒三日而不已。子綦曰：“此果不材之木也，以至於此其大也。嗟乎，神人以此不材。”

¹⁷ Zhuangzi, part one, Hunan People's Publishing House, 1999, P71

可食，故伐之；漆可用，故割之。人皆知有用之用，而莫知無用之用也。)

Zhuangzi here very much praised the usefulness of being useless, being useless means it is useless only for others, because of being useless for others, it can grow up fully, can fulfill their entire life. Zhuangzi called it the usefulness of being useless. This is their own value. Human beings should pay respect to it.

6. Every occasion needs to establish a harmonious relationship with others.

As I argued above that every occasion is equal to other occasions since they have the same mother, Dao, they are sisters and brothers and friends. Therefore, in *Daode jing* and *Zhuangzi*, they put so heavy stress on contention-less. They emphasized that the Endless Creating is not contending with anything else; it is being low, soft and weak, as result of being such position, nothing in the universe can compete with it.

Laozi said in Chapter 81: “The Endless Creating of heaven is to benefit without harming; the Endless Creating of sages is to do without contending.” (故天之道，利而不害；聖人之道，為而不爭。)

Hence, fight and contending is not language of Dao.

Laozi took water as a perfect example in chapter 8 of *Daode jing*: “The perfect goodness is like water. Water approaches all things instead of contending with them. It dwells where no one would like to stay; hence it comes close to the Dao.”¹⁸ (上善若水。水善利萬物而不爭，處眾人之所惡，故幾於道。……夫唯不爭，故無尤。)

In Chap 78: “Nothing in the world is softer than water; yes nothing is more powerful than water in attacking the hard and strong. Why? Because nothing can take its place. Everyone in the world knows that the weak is more powerful than the strong, that the soft is more rigid than the hard,”¹⁹ (天下莫柔于水，而攻堅強者莫之能勝，以其無以易之。)

Daode jing is full of thought of non-contending. Laozi said in chap 66:

“It is only because they do not contend

That none are able to contend with them.” (Roger Ames and David Hall, p110) (以其不爭，故天下莫能與之爭。)

Unlike common people, Laozi strongly promoted the softness and weakness.

In Chap 36: “The soft and weak vanquish the hard and strong.” (Roger Ames, p133) (柔弱勝剛強)

In Chap 43: “The softest things in the world ride roughshod over the hardest things.” (Roger Ames, p145) (天下之至柔，馳騁天下之至堅)

In Chap 76: “while living, people are supple and soft, but once dead, they become hard and rigid cadavers. While living, the things of this world and its grasses and trees are pliant and fragile, but once dead, they become withered and dry. Thus it is said: Things that are hard and rigid are the companions of death; things that are supple and soft are the companions of life. For this reason, if a weapon is rigid it will not prevail; if a tree is rigid it will snap. Thus, the rigid and great dwell below, while the supple and soft abide above.”²⁰

In chap 22: “One does not content with others so nobody in the world can win him in contention.”²¹ (夫唯不爭，故天下莫能與之爭。)

In a word, from Laozi’s perspective, the hardest and the strongest thing in the world is the softest and weakest. “weaking is how the Endless Creating functions.” (Chap 40, 弱者道之用)

Under this Daoism’s direction, Chinese people have built a very close relationship with the ten

¹⁸ Chapter 8.

¹⁹ Chap 78, by Gu Zhenkun. P 299.

²⁰ Roger Ames and David Hall, p195.

人之生也柔弱，其死也堅強。

草木之生也柔脆，其死也枯槁。

故堅強者死之徒，柔弱者生之徒。

是以兵強則滅，木強則折。

強大處下，柔弱處上。

²¹ Ku Zhengkun, p123

thousand things. They care about them so they can feel what the ten thousand things are feeling and have a deep communication with them. They can feel and think like the ten thousand things.

There is a famous saying: be as thin as the plum blossom, as clean as bamboo, fall asleep while the willow sleeps, smile while the peach and plum smile, then I will look like a fairy among the flowers. Sing while the oriole is singing, talk while the swallow is talking, cry while the crane is crying, say while the parrot is saying, then I am their confidant.²² This is how a man becomes one with the ten thousand things. They feel the same way and they share the same feeling.

Another saying:

The sky is distinct, earth is spacious, they look grand and vast, but they are all of my friends. The sky is without words, but lights my heart, makes the world so occult, this is my Zen friend; the evening wind is howling, attacking the bamboo and breaking the water lily, whizzing with leaves, makes me whistle, they are my bold friends; there is a crescent moon like an eyebrow, I walk to the outside of the courtyard quietly, the shadow of the moon moves and wants to talk with me, clean light shines into my bosom, it is my friend in my boudoir; there is a cricket at the corner of a wall, chattering in the grass with dew, sounds like Qingshang Music and makes the dialogue at the west window more joyful, they are my friends when I am blue. In other words, heaven, earth and nature are our good friends. Is there anything more joyful for a human being than being with them?²³

However, Yu Saoshu (a scholar in the Ming dynasty) didn't find this completely satisfying; he thought that human beings might have a marriage with the ten thousand things in their previous life. He said that the plum blossom is the reincarnation of Mr. Lin Bu (967-1024); the chrysanthemum is the birth of Tao Yuanming (365-427); rocks miss Crazy Mi Fu; bamboo thinks of Wang Ziqiu's opened bosom. I often see good friends under the window.²⁴

Those stories are well-known in Chinese history.

In the Song Dynasty, there was a famous poet named Lin Bu (967-1024) who had fallen in love with a plum blossom and a crane. As he had never married he treated them as his wife and son. He also liked to walk in the mountains. Whenever a guest arrived, his houseboy sent the crane to get him back home.

Tao Yuanming (365-427) is a famous poet of the Eastern Chin Dynasty. He wrote poetry on chrysanthemums which have made him the one of the most famous poets in Chinese history.

Drinking Wine

Among the haunts of men I build my cot,
There's noise of wheels and hoofs, but I hear not.
How can it leave upon my mind no trace?
Secluded heart creates secluded place.
I pick eastern fence-side chrysanthemums at will
And leisurely I see the southern hill,
Where mountain air is fresh both day and night,
And where I find home-going birds in flight.
What is the revelation at this view?
Words fail me even if I try to tell you.²⁵

²² “與梅同瘦，與竹同清，與柳同眠，與桃李同笑，居然花裏神仙。與鶯同聲，與燕同語，與鶴同喉，與鸚鵡同言，如此話中知己。”²² ([清] 葉瑣：《散花庵叢語》，引自《明清文人清言集》，中國廣播電視出版社，1991年，第166頁。)

²³ “天清地曠，浩乎茫茫，皆我友也。如太空無言，照人心目，輒增玄妙，此禪友也；夕風怒號，擊竹碎荷，敗擁葉颼颼，助我悲嘯，此豪友也；眉月一彎，悄然步庭外，影珊珊如欲語，清光投我懷抱，此閨中友也；牆根寒蛩，啾啾草露中，如一部清商樂，佐西窗閒話，此言愁友也。審是天地自然良友，悉集堂中，莫樂此矣。” ([清] 葉瑣：《散花庵叢語》，引自《明清文人清言集》，中國廣播電視出版社，1991年，第166頁。)

²⁴ 明代余紹素曾說：“梅是和靖化身，菊是淵明出世，小圃內時對古人；石想元章顛骨，竹想子猷清襟，山窗下常逢勝友。”²⁴ (和靖：北宋詩人林逋，號“和靖先生”，無妻子兒女，居處種植梅花，畜養仙鶴，稱為“梅妻鶴子”。這裏說梅花是林逋的化身。東晉詩人陶淵明有“采菊東籬下，悠然見南山。”這裏說菊花是陶淵明出世。元章，即北宋書畫家米芾，字元章，酷愛石頭，呼之為“石兄”，並對之跪拜，人稱“米顛”。子猷，東晉書畫家王徽之，字子猷，為人清高，喜愛竹子，有名句曰：“何可一日無此君！”勝友，即良友。)

²⁵ (譯文源自 <http://www.24en.com/translate/guide/duizhao/2008-03-18/72629.html>)

Mr. Mi Fu (1015-1107) was a famous calligrapher and painter in the Song Dynasty. He also was fond of rocks. He had bought lots of rocks because he enjoyed being with them and didn't care how much they cost him. One day, while he was a head of a county he heard that there was a huge rock in the bank of a river. He ordered people to move it to the county so everyone could see it. He felt so surprised when he saw it and worshipped it on bended knees. He said to the rock: "I want to see you, my rock brother, for twenty years!"

Mr. Niu Zhenru (780-840) who was prime minister in the Tang Dynasty was also fond of rocks. He treated them as his guests and friends, revered them as sage and philosopher, valued them as jade and treasure, loved them as his own son and grandson.²⁶

They loved flowers as much as their own lives. Mr. [Li Yu \(1611-1680\)](#) is a [late Ming and early Qing writer and dramatist](#). He described four flowers as his life: narcissus in spring, lily in summer, birchleaf pear in fall, and calyx canthus in winter. He said that he would have no life without these four flowers. It was to take my season's life away if there was no such flower in the season.²⁷

They also hold their best wishes for nature; wish that mountains and flowers be safe and well.²⁸ Therefore, they often worry about the moon when clouds cover it; worry that wind and rain might blow the flowers down.²⁹ They hope for no disasters in nature. They cannot even bear the idea that flowers fall and the moon sinks. Those are the most heartbreaking things for them.³⁰

If so, why human beings should harm and contend with the ten thousand things since they had such close and dear relationship with the ten thousand things!

iii. Conclusion.

In summary, according to what *Daode jing* and *Zhuangzi* said about Dao, Dao is Endless Creating, its primary job is to give a birth, to produce the ten thousand occasions, to let them be themselves, to leave them alone, nothing more, and nothing less. This is the biggest benevolence (大仁, 至仁). By contrast, to harm and kill a life is the absolute evil.

Secondly, Laozi and Zhuangzi especially addressed to our human beings. The lesson they taught is that every occasion is equal to others, they have their own value due to their existence, their features and their characters, not their usefulness to human beings, nothing in the world can replace them. Therefore, human beings should not treat themselves as a center of planet, look down upon and contend with the ten thousand things, they should build a harmonious relationship with others. This is the way of Endless Creating. This is also wisdom we have to learn from Endless Creating in order to restore the relationship man should have with the ten thousand things.

飲酒
結廬在人境
而無車馬喧
問君何能爾
心遠地自偏
采菊東籬下
悠然見南山
山氣日夕佳
飛鳥相與還
此中有真意
欲辯已忘言

²⁶ 牛僧儒(780-840)之愛石“待之如賓友，視之如聖哲，重之如寶玉，愛之如兒孫”。(白居易《太湖石記》)

²⁷ 李漁四時皆有特別鍾愛之花，謂之“四命”：“春以水仙、蘭花為命，夏以蓮為命，秋以海棠為命，冬以臘梅為命。無此四花，是無命也；季缺一花，是奪予一季之命也。”(李漁《閒情偶寄·種植部·草本第三》)

²⁸ [明]吳從先：《小窗自紀》，引自《明清文人清言集》，中國廣播電視出版社，1991年，第18頁。“生平願無恙者四，”其中有二就是：“一曰青山，……一曰名卉。”

²⁹ “為月憂雲”，“為花憂風雨”。

³⁰ [清]張潮：《幽夢影》。“花不可見其落，月不可見其沉”

II. The relevance of Dao for today

i. Our planet is in danger

Here I would like to escape from the describing how crucial the ecological crises are because you properly have so much information about it already and want to take my time to emphasize that those crisis are not the environment, but we, human beings, are the crisis because we are the cause of the crisis, not the environment. The crises are the result of what we have done and are doing to the planet, especially the modern lifestyle of human beings.

ii. The modern lifestyle

The modern life style is based on a misunderstanding of happiness and consumerism. Dr. David Schwerin indicated that “In the modern world, people are seeking happiness by putting so much emphasis on material wealth. They think ‘accumulating more things would lead to greater comfort and status and, therefore, to happiness.’”³¹

Such misunderstanding of happiness leads people to consumerism. As Prof. Jay McDaniel indicated “in the West we have come to equate life’s meaning with the possession of material goods and the pursuit of wealth. The advertisements on television tell us that “success” in life is to have a pleasant appearance, to have money, and to be economically productive”³². Not only in the U.S. but also in China, more and more people are highly influenced by the culture of consumerism.

By following this culture, “on average, one American consumes as much energy as 13 Chinese,”³³ “Americans constitute 5% of the world’s population but consume 24% of the world’s energy.”³⁴ “If undeveloped countries consumed at the same rate as the US, four complete planets the size of the Earth would be required.”³⁵ May 5 of 2010, president Obama said that in the interview for Australian TV : “.....if over a billion Chinese citizens have the same living patterns as Australians and Americans do right now then all of us are in for a very miserable time, the planet just can’t sustain it, ”³⁶

I knew what Obama said in Australia last year has hurt a lots of Chinese’s feeling. They feel this is not righteous why Chinese cannot have the same life style as Americans and Australians do? The answer from me is very simple: because our only planet has its limitation and it just cannot afford more people to have it as those developed countries people do. Their people already made such horrible mistakes, why should Chinese follow them?

At the same time, a lot of people hope scientists, experts and engineers can help human beings to solve this problem. They hope they can find the new technology to have more efficient way to use energy, and find new and green energy so people don’t need to change their luxury life style. I agree with what Dr. Cobb points out in his book: *Is It Too Late?* He says that technology and technologic attitude have three limitations to deal with the ecological problems. First, they are “to manipulate, whereas what the subhuman world often needs is to be left along.” Their second limitation “is determined by their masters.” The third is that “it embodies a false understanding of the relation of ends and means.”³⁷ Therefore, the ecological problems “are not merely technological. We cannot simply continue to live and think as we have while assigning to the engineers the task of restoring the earth.”³⁸ Surely, new technology may help us with the crisis in some level, but not in a deep level. For this reason, we need to deeply think of the causes of the crises, that is what behind the problems. There is philosophical or spiritual reason, the idea of relationship between man and nature.

As Dr. Spretnak have clearly points out that

“But how did modernity arrive at such a fanciful, disembedded, and deadly theory? In the cultural

³¹ Dr. David Schwerin: *Turbulence to Tranquility: Building an Economy to Believe In*.

³² Jay McDaniel: *Creative and Post-Modern Wu-Wei---Process Thought and the Future of China*.

³³ <http://www.mindfully.org/Sustainability/Americans-Consume-24percent.htm>

³⁴ <http://www.mindfully.org/Sustainability/Americans-Consume-24percent.htm>

³⁵ <http://www.mindfully.org/Sustainability/Americans-Consume-24percent.htm>

³⁶ <http://www.topix.com/forum/world/china/T5JPP05FQ9F4N2F2U>

³⁷ John. B. Cobb, Jr., *Is it too late?* Bruce/Beverly Hills, California, 1972, p23-26.

³⁸ John. B. Cobb, Jr., *Is it too late?* Bruce/Beverly Hills, California, 1972, p21

history of the West, a tragic break from perceiving humans as embedded in the cosmos and the processes of the Earth occurred during the period of classical Greece, when it was declared by various philosophers that there is a radical discontinuity between body and mind, between humans and nature, and between self and the world. This Greek philosophical break from nature was intensified as an “objective” distancing during the neoclassical orientation of Renaissance humanism, in the 15th and 16th centuries. It was further strengthened during the Reformation when the doctrine of “radical sovereignty” rejected the medieval sense of nature as having internal integrity and purpose and, therefore, co-creating the world with God; instead; nature was henceforth to be regarded as mere inert matter because all glory and creativity must be understood to reside solely with God. The early modern distancing from nature was then radically advanced by the Scientific Revolution, in the 16th and 17th centuries, in which the mechanistic worldview was established. It was applied to all our social institutions in the 18th century during the Enlightenment, which also established the concept of a supposedly Autonomous Individual, who is free of all the premodern relationships to tradition, community, religion, family, and nature. The result was that Western cultures were fully prepared to accept the marginalization of nature when modern economic theory declared it so, in the late 18th and early 19th centuries.”³⁹

Hence, to have new technology, to find new green energy, and to simply change our agricultural, economics, political and educational policies can do little help, but not far enough, we definitely need to reexamine the philosophy, religions which are behind those ecological crises in the first place.

This is the reason why Dr. Cobb says that “One requirement for a nation to move far in the direction of ecological civilization is cultural or spiritual.”⁴⁰ “Human beliefs about the nature of the ecology are the distinctive contribution of our species to the ecology itself.” (Lawrence E. Sullivan, p ix) If you belief in philosophy behind the modern life style, modern economics and political theories, that will harm our planet seriously as they already done and are doing. Surely, to change human beings’ believe is a crucial step to establish a new civilization, ecological civilization from modern or industrial civilization.

iii. Using Dao today.

In Greek, *crisis/Krisis* means decision. The ecological crisis means “to assert that we are at a decisive moment in human history and in the natural history of our planet, and that our decisions now are crucial.” (Robert Traer, *Doing environmental ethics*, Westview Press, 2009, pix)

So it is time to rethink what the meaning and the purpose of life and what is the true happiness about. In order to do so, as Charlene Spretnak points out: we need to reclaim “the core Teachings and Practices of the Great Wisdom Traditions for the Well-Being of the Earth Community.” (p xxvii) Every tradition has its unique role to play in the response to the challenges of ecological crises.

Daoism is one of them. As I pointed out above, it could offer us many valuable lessons such as how to treat nature and the ten thousand things, how to build harmonious relationship with them, so on. Therefore, we need to call for Dao, learn from and practice it, change our believe from modern thoughts into Dao, The Endless Creating, is the first, but also the crucial step for us to take.

The reasons are following:

1. to believe in Dao, The Endless Creating, means to reexamine our own tradition such as Daoism, to make it transform from old time to present period. This is not simply returning to it.
2. to believe in Dao, The Endless Creating, means to treasure every life on planet and to be aware that the biggest evil is to kill a life.
3. to believe in Dao, The Endless Creating, means to respect others, don’t put human beings on the center of the stage ever again. Human is not a master of the ten thousand things. Every thing is equal and has value in itself.
4. to believe in Dao, The Endless Creating, means to reestablish the harmonious relationship with

³⁹ Charlene Spretnak, *The Ecological-Postmodern Imperative in China*, the 2nd International Conference on Ecological civilization, Constructive Postmodernism and China’s Modernization, 26-28 October 2007; Claremont, California.

⁴⁰ Dr. Cobb, paper for The Fourth International Forum on Ecological Civilization, May 3-4 2010, Claremont CA

the whole nature and the ten thousand things as well as societies so all of occasions can rely on each other, mutual-support each other and interact with one other. There will be win-win and mutual wins situation. Human beings cannot separate from the natural world and the ten thousand things. Fighting and contending is not the language of Dao, it brings only lose-lose result to all occasions.

5. to believe in Dao, The Endless Creating, means human beings have to change their modern life style, their economic, political and educational policies and so on in order to toward a new civilization: the ecological civilization.

Finally, when I said above to believe in Dao, The Endless Creating, I don't mean to simply return to it. As a scholar, not just a Chinese, I have to think the questions which are that why Daoism didn't help China to avoid the same mistake as the Western did since China is facing its own serious ecological crises today even there is Daoism in the history? Does Daoism can really help Chinese to solve those crises by simply returning to Dao?

My answer to the questions after my second thinking is that

- 1.Chinese people look down upon their own traditions since the beginning of last century in order to welcome modernization;
- 2.In the history, "Taoism did not control actual Chinese practice in relation to the natural environment".⁴¹
- 3.I cannot think of Daoism through the rosy color. Daoism has its negative aspect such as inaction. Can human just leave the natural world alone with so many problems cause by man without doing anything? People must take their responsibility to it and take active action, not as a master or controller as before, but as "co-worker with nature in the reconstruction of the damaged fabric which the negligence and wantonness of former lodgers has rendered untenable. He must aid her in reclothing the mountain slopes with forest and vegetable mould, thereby restoring the fountains which she provided to water them; in checking the devastating fury of torrents, and bringing back the surface drainage to its primitive narrow channels." ⁴²(Marsh)
- 4.Time has been changed since Laozi's time. The world Laozi described to us is the world of thousand years ago; the relation man with nature he had showed to us is the relation thousand years ago, not the world and the relation man with nature now. There is no solution for our crises in Daode jing and Zhuangzi, but wisdom. We need to open ourselves not just to our traditions, but also to other wisdom in the world, especially to Whitehead organism.

That's the main reason today I talked about it here. Thank you for your time and welcome your comments!

E-mail: meijun@ctr4process.org

⁴¹ John B. Cobb, Jr., *Is it too late?* 1972, p45.

⁴² Quoted from *Is it too late?* P46.

Foreseeing novelty: Bergson and Whitehead on Possibility and Creation

Alexander HAITOS (Texas A&M University, U.S.A.)

alexhaitos@gmail.com

A good theory of possibility should account for the introduction or creation of novel elements in the world. A novel thing is different from everything else, containing a form that, in its complete particularity, has never before graced the world. This paper explores the constraints such a view of novelty places on the nature of possibility. It quickly becomes apparent that if everything (or event or state of affairs) in its every detail were possible before it became actual, then the thing would not be novel, for nothing would be genuinely created but rather only instantiated. Henri Bergson sees this and argues for the highly counterintuitive claim that things are not possible before they are actual, both temporally and metaphysically. This solves the problem of novelty but creates problems in accounting for our ability to foresee or predict future events; indeed, how could we make predictions if nothing is possible? Placing possibility after actuality also creates difficulties explaining the process of creation. Alfred North Whitehead, however, can account for foresight and creation, but these accounts seem to depend on denying Bergson's view that possibility comes after actuality, and thus it is unclear if and how Whitehead could account for genuine novelty.

But viewing Bergson and Whitehead as opposed in this way involves a misreading of them, particularly of Whitehead. I argue that Bergson and Whitehead are actually complimentary regarding possibility and novelty. By digging into Bergson we will find he does have room for a certain sort of possibility, and by examining Whitehead we will find he has room for Bergsonian novelty. To this end, I will explain key parts of Bergson's critique of preexistent possibility and the problems that arise because of foresight and creation while emphasizing the space left open for a new theory of possibility. I will then argue that Whitehead's theory of eternal objects can fill this space without denying novelty, despite arguments to the contrary. *Bergson's Argument Against Preexistent Possibility*.

In his essay *The Possible and the Real*, Bergson lays out an unusual position concerning the metaphysical status of possibilities. For Bergson, "[It] is the real which makes itself possible, and not the possible which becomes real."¹ Only after something is actual is it then, retroactively and retrospectively, possible. But why deny something can be possible before it can be actual?

For something's possibility to preexist its actuality means that some future entity or state is possible *now*. That is, the future can be represented before it happens; which means the future is knowable and thus foreseeable—at least in principle.² But if the thing (or event, or state of affairs) is knowable in the present, it has some sort of existence in the present, for there must be something to know. Such preexistence means creation or change does not generate a novel entity, but rather generates an entity that expresses the already existent details 'concretely' or 'actually.' This can be interpreted as meaning that if we accept novelty, the future cannot be foreseeable by a super-mind, a mind in which *what is* (in any sense) is isomorphic with *what is known*.³

This unforeseeability translates into a radical indeterminacy of the future.⁴ Indetermination does not preserve novelty if the possible still preexists the actual, for if possibilities are laid out beforehand a super-mind would see all there is to see about the world, branching paths of possibility and all, eliminating genuine novelty. Thus indeterminacy must be stronger than uncertainty about a path if we are to preserve novelty; indeterminacy must mean there is *no* path; a path must be created, and we cannot be sure what the path will end up looking like.

Bergson's denial of preexistent and foreseeable possibility is a radical move. It raises the stakes for what a philosophy must do in order to countenance novelty. The strength and pervasiveness of the indeterminacy required for the creation of novelty means many philosophies simply do not have the means to countenance genuine novelty, much less Bergson's ideal of the "continual creation of unforeseeable novelty."⁵ And Bergson believes novelty is a pervasive feature of experience.⁶ Bergson believes the world "will reveal to us, beyond the fixity and monotony which our senses, hypnotized by our constant needs, at first perceived in it, everrecurring novelty, the moving originality of things."⁷ As an element of our experience (even deeper than phenomenological experience), novelty must be accounted for. Bergson's argument reveals that the metaphysics of possibility must be developed with constant attention to the question of novelty and to the fact that possibility cannot precede actuality.

Yet Bergson does not deny that, in a sense, things *are* possible before they happen. But this sense of possibility is distinct from wholly definite and particular possibility—the possibility that *I* can go grocery shopping *tomorrow* at *that* store.⁸ Rather, in this new sense possibility merely means "absence of hindrance" or "no insurmountable obstacle to...realization."⁹ This is the negative sense of possibility, attributing no definite form to what is possible; it is non-impossibility. It is in this sense that something is possible before it happens—nothing prevents the thing from happening. The positive sense of

possibility, in which a possibility does have a definite form and character, is a shadow of the present on the past. Once actual, some definite, particular thing can then be *thought of* as having been possible, seeming as if it were possible all along.¹⁰ But such definite possibility does not apply to what has not yet happened. Here only negative possibility is applicable. Definite possibilities are only thought of as preexisting actuality if they are conflated with the negative sense of possibility.

It is easy to conflate the positive and negative meanings of possibility, though. It simply seems right that for something to happen *it* must have been possible beforehand. And it is—negatively. But this quickly becomes thought of positively. Before I actually jump over some puddle, it must be possible that *I* can jump over *this* puddle, created by *this* storm, by *this* intersection. But according to Bergson this is just how we think about possibility. Reifying our common mental conception of what is possible of the future into a metaphysics of possibility results in a world where the possible becomes actual merely by “an acquisition of existence,” thus destroying novelty.¹¹

Bergson's Two Possibilities and Some Problems

Bergson has left us with a positive and a negative notion of possibility. The positive notion, individual and definite, does not preexist actuality. The negative notion only signifies an “absence of hindrance” and does not imply some form that is to become actual. While this may be acceptable from the standpoint of allowing novelty in the world, this split seems to prohibit prediction as well creating an interesting problem within the very idea of creation. These troubles challenge the plausibility of placing definite possibilities as existent only after actuality, effectively putting the existence of novelty back on trial. I hope to show that the challenges placed against Bergson can be met not by denying his basic distinction or by denying novelty, but rather by requiring a further elaboration of a Bergsonian theory of possibility. In this light I will offer Whitehead's theory of possibility.

Prediction, or foresight, is a problem for a Bergsonian theory of possibility precisely because positive possibility¹² exists only after (a corresponding) actuality. By placing the possible after the actual there is nothing “in the future” to talk or reason about. What would we predict without possibilities to draw on? Bergson admits this limitation when he claims he cannot say or predict anything about “the great dramatic work of the future” because it is not yet possible but rather, “*will have been possible*.”¹³ But we

do talk and reason about future possibilities and we are often correct. “I think I’ll do the grocery shopping tomorrow, that way if I want to have some people over this weekend I can.” All counterfactual reasoning requires us to think through various possibilities and their consequences. In fact, our reasoning about the future seems to extend beyond thinking about the myriad possibilities and includes ordering possibilities based on the likelihood of their occurrence (probabilistic inference). In some circumstances such predictions can be made with extreme precision and accuracy, as in the sciences. But if possibilities exist only after the actual, or as an image of it, how can counterfactual and predictive reasoning be applied to the future? Prediction asserts something positive about the future, and our often-successful predictions indicate we are accurately asserting something about the future (that such-and-such is possible and is even likely to become actual); foresight is required for prediction. Bergson’s future, ever open and empty, does not seem to support such foresight because there is nothing in the future to foresee. Our ability to reason counterfactually and successfully predict aspects of the future thus provides a strong challenge to Bergson.

But Bergson knows this kind of foresight is possible and does happen. He construes foresight not as insight into future possibilities, but as insight into the present process of creation.¹⁴ For instance, rather than literally seeing a future cup of coffee, the foresight of a cup of coffee depends on insight into the process of brewing coffee and its anticipated outcomes. However, the notion of creation itself becomes problematic if possibility does not precede actuality. Even if foresight can be derived from the process of creation instead of possibility, this does nothing to save novelty if the process of creation still depends on preexistent possibility.

The metaphysical importance of possibility in creation stems from the need for a *material* of creation—the stuff from which a creation is created. If creation requires existing material, the material must be able to be used in a way distinct from the way it *is* now; the material must include the potentiality for difference. If there were not such potential what is actual would never change. It is this *potentiality for difference* that provides space for a growing and novel world. But this potentiality for difference means that some positive aspects of possibility exist prior to the actual, namely *how* the material could be different. It is not clear if or how Bergson could account for such positive possibility while maintaining the possible does not precede the actual. On the other hand, if creation does not require material, then a novel actuality must be created from pure nonentity. It is not at all clear what this claim could mean; it stops further discussion and investigation. The idea of creation from pure nonentity also obscures the meaning and existence of order.

If future actualities stem from nonentity, what reason short of a transcendent deity can be given as to why the future shares in the forms of the present? What can limit or influence nonentity? No reason can be given why chairs continue to exist rather than shrink or become elephants. The order (and intelligibility) of the universe depends on creation from some material.

Because creation from nonentity renders order inexplicable we return to creation from some kind of material. This is the path Bergson takes as well; he denies the very idea of Nothingness and says creation works from “the material furnished...by the past and present...to mold a figure unique, new, original, as unforeseeable, as the form given by the sculptor to the clay.”¹⁵ Since Bergson accepts a material of creation, he must have room for the potential for difference or else there would be no change and consequently no novelty.

Thus we turn back to a material of creation that includes some sort of potential for difference. This potential for difference, I submit, does not need to be construed as definite possibilities. Definite possibilities must be understood as a product of creation, not as existent prior to it, and consequently are unimportant in creation. Rather, the potential for difference can be a *general* sort of possibility—potentiality—and I argue it is found buried within Bergson’s negative possibility, the absence of hindrance. Such potentiality does not predetermine or lock the future into any set path, but rather gives the blurred sense of what it *could* be.¹⁶

Note that if the possible does not preexist the actual, the possible cannot act as part of the material for creation and the actual must contain the potential for difference needed for creation. Potentiality is not independent from actuality. Also note that accounting for the potential as something positive means Bergson is wrong if he means to say there is *no* positive meaning to possibility prior to actuality. There is something before actuality—certainly not possibilities in the particular, definite sense that is lethal to novelty—but rather general potentiality.

At first glance, Bergson’s criterion that possibilities do not preexist actualities has potentially fatal gaps. Foresight and the process of creation seem to require possibility in a way incompatible with its post-actual existence. Yet there are suggestions found in Bergson that foresight can be construed as referring to the process of creation, not to definite possibilities, and that the process of creation can draw from a material of potentiality that is not definite or hostile towards novelty. I have provisionally called such possibility “general potentiality.” And since Bergson acknowledges there can be prediction and there is a material of creation he must have room for general potentiality. But here Bergson leaves us, because he construes such potentiality negatively, as “absence of hindrance” or “non-impossibility.” To

develop an account of general potentiality that addresses the issues confronting Bergsonian possibility we must turn elsewhere. I argue that it is in Whitehead's work where we find an adequate account of general potentiality, despite the appearance that his theory relies on a type of possibility antithetical to Bergson's aim of creating a place for novelty. Combining Whitehead and Bergson will give us a strong, clear theory of possibility that accounts for novelty, stronger than either taken separately. I now turn to elaborating Whitehead's theory of eternal objects, how it leaves room for novelty, and how he and Bergson fit together.

Whitehead's Possibility – Eternal Objects

Within his philosophy of organism, Whitehead develops an account of possibility grounded in what he calls eternal objects. An eternal object is a possibility, or potentiality, for an actuality.¹⁷ There is an indefinite number of eternal objects, and they come in a variety of complexities, from 'color' to 'sweetness'; such boundless potentiality indicates the variety of forms actuality has taken and will take in the future. But an eternal object is not a definite possibility, correspondent to a realization—me jumping over this puddle—but a *pure* potential, suggesting no particular realization—blue.¹⁸ As "pure potentials," I believe eternal objects can fill the gaps left by Bergson; they are part of the basic material of creation, they provide a ground for foresight and prediction, and yet they do not render the notion of novelty meaningless. However the notion of eternal objects can be taken to entail preexistent possibility in the very sense Bergson denies. It is my goal to provide a brief account of Whitehead's theory of eternal objects as it pertains to novelty, showing that it does not run counter to Bergson's position, but rather compliments it.

Before explicitly dealing with the issue of novelty, I need to say more about eternal objects. As stated above, eternal objects are pure potentials. They are also described as "forms of definiteness"—forms or ways of being.¹⁹ Eternal objects constrain and characterize what that actuality is. For example, 'blue' or 'hard' or 'propagating wave' are characteristics that contribute to the definiteness of an actuality, the way it is. These ways of being are eternal objects. The above examples also illustrate how eternal objects also serve the purpose of universals. As pure potentials, they are realizable, perhaps realized, by an indefinite, indeterminate number of actualities. Since eternal objects may characterize any number of actualities, they act as universals.²⁰ By combining the roles of universals and potentials, eternal objects establish within the potential an irrevocably general character.

In addition, eternal objects are not actual in the full, concrete sense of that word. For Whitehead, only actuality is finally, or fully, real, meaning that everything in the world, including potentiality, is to be found in some actuality; “all things are to be conceived as qualifications of actual occasions.”²¹ This is Whitehead’s “ontological principle.”²² The main relevance of the ontological principle to this discussion is that eternal objects are derived by abstraction from actualities.²³ Thus potentiality does not have existence apart from the existence of actuality. Actuality at once presents itself as being what it is and what it is not but could be.²⁴ That actuality presents itself as including an essential element of potentiality is illustrated by the fact that we can have imaginative thoughts. We have the unshakable sense that things could be different, that the coffee could be warmer.²⁵ The derivation of potentiality from actuality is the first step in establishing that eternal objects are not the sorts of possibilities that eliminate novelty. To eliminate novelty, a possibility must exist prior to actuality and be wholly definite; but the abstraction of eternal objects from a concrete actuality establishes inherent indeterminateness and generality *within* potentiality, not just *of* potentiality. That is, eternal objects are not indeterminate in a “choice between options” sense but are indeterminate in the sense that they provide no options. Actuality creates the option. An eternal object defines a particular way in which an actuality may be definite. The multiplicity of eternal objects thus constitutes *all* of the ways in which an actuality may be definite; it constitutes the infinite variety of what could be. But by the ontological principle, this multiplicity must be realized in some definite actualities. What makes a potentiality “pure” is its relevance to all actualities, past, present, and future. Whitehead places all pure potentialities in an atemporal entity, named the “primordial nature of God.”²⁶ This primordial entity is the realization of all potentiality, and within this entity the eternal objects are structured and valuated, given pattern and diversity.²⁷ In fact, individual eternal objects are all derived from the primordial nature of God and the structure found therein. Eternal objects could not exist apart from their realization in this structure; the isolation of eternal objects is “indistinguishable from nonentity.”²⁸ Thus “there is a double sense of ‘abstraction’ in regard to the abstraction of definite eternal objects...There is abstraction from actuality, and abstraction from possibility.”²⁹ By containing potentiality *as such*, God provides the room, the space, the opportunity, for the subsequent variety and difference of actuality. The structure of potentiality realized in the primordial nature also informs how such potentialities will relate and play out in the creative advance of actuality. All subsequent actualities will feel God, and consequently are opened to the expanses of infinite

potentiality.³⁰

Against Whitehead's Eternal Objects

Whatever reservations one may have about eternal objects actually allowing for novelty, they come to a head here with the introduction of the primordial nature of God. Yes, for Whitehead potentiality inheres in the actual, aligning with Bergson's denial of the independent preexistence of possibilities. But if God contains all potentialities, primordially, then does he not know everything about the world and what could be in it? Is Whitehead's God not the very Bergsonian super-mind with the foresight to destroy novelty? Primordially existent potentiality may not preexist the primordial actuality, but it certainly preexists every other actuality.

This objection asserts that Whitehead's God is a storehouse for everything that is possible, thus eliminating novelty. Peter Gunter puts the objection this way:

The God of Leibniz can envision all possible worlds, even in their infinite complexity.

Similarly, Whitehead's God is construed as containing the sum of all possibilities in his primordial nature.

Those with a nodding acquaintance with logic will note the appearance here of the universal qualifier 'all.' All leaves no exceptions, accepts no equivocations. On Whitehead's terms (as on Leibniz's) there can be no characteristic of anything at any time, no matter how complex, which the deity does not behold prior to its appearance. It follows that there can be no novel entities. Creativity must be understood as a choice between pre-existing 'possibles.'

31

Gunter's claim that there can be no novel entities is supposed to follow from Bergson's argument against possibility, which I have adumbrated above. Whitehead's God is the super-mind that foresees all, meaning the flow of time merely reveals what is eternal about the world, not what is new in the world.³²

Whitehead is susceptible to this argument because he does construe God as containing the multiplicity of eternal objects. He even occasionally describes time as the "moving image of eternity."³³ The creation of novel actualities, the flux of actuality, is characterized by *eternal* objects.³⁴ The definite character of the actual is derived from its relation to timeless potentiality. In general, Whitehead's language and tone make it easy to misread his theory of possibility as antithetical to Bergson's. But this misreading of Whitehead, where a God who knows all potentiality makes true novelty impossible,

involves a substantialization of potentiality that accords an eternal object the role of something like an image, able to be beheld beforehand and to be actualized in due time. But an eternal object is a *way*, or a *style*, of being, not something that is simply realized or “matched” during realization. For example, a becoming actuality does

not realize ‘green,’ but rather the way it is is green—it is being greenly. Gunter’s assumption is that becoming actualities are merely *realizing* some particular possibility, or eternal object, contained in God. But they are not. By assuming that an actuality merely realizes or instantiates some particular eternal object, one assumes that an eternal object is the possibility *of that* actuality, since the eternal object would then contain the full particularity and contextual detail of the future actuality, just non-actually. But the analysis of an eternal object can only disclose relations to other eternal objects, as per the valuation of the primordial actuality.³⁵ No actualities are disclosed or referenced in any way; pure potentials disclose only their possibility. Actuality contains particularities and determinations the potential does not. No matter how “particular” or “complex” a possibility may be, there is still some indeterminateness in its nature; full determination is identical with the creation of a new actuality.³⁶ That is, a form of definiteness leaves room for difference within its realization; an eternal object only determines definiteness *to an extent*. This is an illustration of the general continuity of potentiality, its undivided divisibility.³⁷

The ultimate point is that Whitehead’s God does not behold every characteristic of *anything* at any time. God realizes the multiplicity of eternal objects, feeling each eternal object once. God’s single realization of each eternal object is derived from the principle that every entity or object is felt within the satisfaction of an actual entity only once.³⁸ God, an actual entity, is no exception to metaphysical principles,³⁹ and the satisfaction of God’s primordial nature is the valuation of the multiplicity of eternal objects.⁴⁰ Thus an eternal object is felt once within God, though it may characterize more than one actuality. This means that an eternal object is not a particular possibility for a particular actuality, as it cannot be actualized without some further determination of its character and status. God does not foresee every distinct ‘red rose’ that will ever be, but rather he contains red-roseness.

Whitehead emphasizes this point by saying each actuality has a ‘real’ essence and an ‘abstract’ essence.⁴¹ The real essence is particular to the actuality, as it involves the location and status of the actuality in the actual world, while the abstract essence can be shared by multiple actualities—it is a complex eternal object.⁴² The real essence of an actuality is tied to the novel way in which an

abstract essence is felt, or realized. An abstract essence captures an important aspect of an actuality, but the actuality itself involves more.⁴³ An abstract essence indicates a form or way of being, such as 'blue,' but does not indicate the numerous ways in which this form may be expressed.⁴⁴ That is up to actuality. In this way an abstract essence is an undivided divisibility.

The particularities of an actuality include “where” the actuality is in regards to its various relations to the rest of actuality,⁴⁵ and these particular relations alter the overall character of the actuality, beyond the determinations of the abstract essence.⁴⁶ For example, the actual deterioration of *this* old book due to its being kept in *these* conditions alters its actuality, its real essence, but not its abstract essence.⁴⁷ Also, an actuality “bears on itself the scars of its birth,” meaning that the final determinations that constitute the creation of a novel actuality have been definitive as to exactly how this actuality has implicated the various potentialities in its nature, including its environment.⁴⁸ By “including its environment” I mean the becoming of an actuality derives not only from the definiteness of certain eternal objects, but also from the definiteness of other actualities.⁴⁹ Thus pure potentiality is not the sole material from which a creation is derived. Both sources of definiteness still harbor some indeterminacy—how the elements contributing definiteness will be felt as contributing to the character of the becoming actuality—and the final stance the actuality takes with regard to other actualities and potentiality eradicates the indeterminacy and constitutes its final definiteness. It is only at this stage we can talk about *that* chair next to *that* desk in *this* building. It is only after actuality is created that there is, in a Bergsonian sense, possibility. This disconnect between potentiality and the full determination of actuality expresses that “each fact is more than its forms,”⁵⁰ meaning each actuality is a *novel* determination of form,⁵¹ a new division of undivided divisibility.

Thus God, in realizing the multiplicity of eternal objects, does not foresee actuality at all. If God has foresight, he can only see abstractions or generalizations of ways actuality could be. This means Gunter is wrong in arguing that Whitehead’s God does not allow for novelty. Whitehead’s God contains all possibility, meaning the *general* characteristics or forms an actuality may take on. Every single actuality determines these possibilities in a new way, giving them a concreteness impossible to foresee. Thus Bergson’s criteria for novelty are met—actualities are new and unforeseeable—and do not need to be placed “after” actuality in order to preserve novelty. To be able to enumerate and foresee every detail of an actuality entails the creation of that actuality, much in the same way that enumerating every detail of *Hamlet* is the creation of *Hamlet*.⁵² Thus the intuition is preserved that something—such as a car—is possible

before it is actual, as a *way* in pure potentiality, yet when the car is created, it is a novel thing, itself in its particularity unable to have been foreseen.

So, eternal objects allow for the novelty of actuality and fulfill the idea that possibility must function as a material of creation. The way eternal objects are felt, or done, are the ‘real’ components of actuality, and eternal objects are indeterminate as to how they are felt, thus leaving every actuality, in itself, unforeseeable and novel.⁵³ Eternal objects are a material with a form, indeterminate in respect to detail, that achieves the specificity of actuality in creation. Since eternal objects are found through abstraction within the actual, the material of creation need not stretch beyond actuality.⁵⁴ And within creation the ingressing eternal objects act as a “lure for feeling,” imparting their (partial) determination on actuality.⁵⁵

Eternal objects also provide an interesting way of accounting for foresight. Because the forms to be realized by a future actuality are yet undetermined, foresight does not involve the anticipation of particular actualities, and thus is never perfect. “Nature, even in the act of satisfying anticipation, often provides a surprise.”⁵⁶ Foresight is a *conjecture* as to what characteristics a future actuality is likely to take on. This conjecture is based on the presupposition that the general order exhibited by the present environment will be exhibited during the becoming of the future actuality, constraining pure possibility and conducive to the realization of the anticipated character.⁵⁷ This presupposition, in turn, is based on the general “intensive relevance” of eternal objects to a particular environment, with the intensive relevance derived from the initial structuring of eternal objects effected in God’s primordial nature.⁵⁸ Thus foresight into the future is insight into to the operation of potentiality in creation. This fits nicely with what we found in Bergson, namely, that foresight is concerned with the material of creation and the “absence of hindrance.” Eternal objects are the relevant “material of creation” and environmental constraints define hindrance, and thus its lack.

Congruencies Between Whitehead and Bergson

Eternal objects thus fit in the basic framework set up by Bergson: they are not definite and do not wholly determine an actuality, they form an important part of the material of creation, and they help in providing a ground for our ability to predict. I will now elaborate on some of the congruencies between Whitehead and Bergson.

First, since the potential does not supply the particularities of an actuality, the completion and

determination of all the details of some thing constitute the creation of that thing as an actuality. In Bergson, this is found in his claim that a precise and complete idea of something, say a symphony, means the thing itself is complete, the symphony is composed.⁵⁹ In Whitehead, the actual contains a novel determination of the potential, creating details unspecified by potentiality that constitute its actuality. More interesting is the similarity between Bergson's idea of possibility as the "absence of hindrance" and Whitehead's potentiality. Recall that for Bergson things are possible prior to their realization only in the sense that there is no absence of hindrance to their realization. Bound up in this idea of "absence of hindrance" is the idea of constraints on creation that arise from the material of creation, "the material furnished...by past and present."⁶⁰ For Whitehead past actualities at once form the data out of which a new actuality arises and constraints on how and what this actuality can be.⁶¹ These constraints limit the boundlessness of pure potentiality into "real" potentiality.⁶² Real potentiality is what an actuality can be given the circumstances of its creation. Bergson's "absence of hindrance" is analogous to Whitehead's real potentiality; constraints truncate the space of possibility and leave real potentiality, what is not hindered. It is by taking account of these constraints that foresight is possible. Insight into the present, into what the real potentiality of the moment is, will yield an ability to predict the general nature of the future. Of course, the more knowledge one has of real potentiality, the more precise one's predictions.

Taken to its limit, "absence of hindrance" becomes pure potentiality—total unconstrained possibility. Bergson never discusses such unconstrained possibility. There is always the constraint of actuality. That there is always such constraint is true for Whitehead, too. Since pure possibility is abstracted from actuality, all possibility *in the world* is real possibility. Bergson construes the notion of unstrained possibility negatively, emphasizing its lack of definite form as indicative of its indeterminate and negative nature.⁶³ Whitehead construes it positively, attributing to it the multiplicity of ways of being through an effort of abstraction, maintaining the necessary element of indeterminacy. By construing it positively, Whitehead is able to give more concrete answers to questions concerning possibility, such as its role in creation and in foresight. But this positivity also makes Whitehead susceptible to charges that all actualities can be foreseen, since possibilities are 'eternal.' But these charges ignore the indeterminacy within eternal objects and the fact that eternal objects are abstractions from a larger whole of potentiality; eternal objects are neither atomic nor self-sufficient.

Upon a closer inspection, Bergson's claim that "absence of hindrance" is a negative notion does not exclude the positivity of eternal objects. We can subject Bergson's claim of negativity to

his own arguments against the existence of nothingness and disorder. Bergson argues that in forming ideas of nothingness and disorder—negative notions—we are actually engaged in an act of substitution and suppression.⁶⁴ The idea of nothingness, for example, is derived from our searching for a certain something (a ring), finding something else (air), and suppressing what was found, meaning “nothing” was found.⁶⁵ We literally cannot conceive of absolute nothingness, only suppress, or ignore, whatever our mind happens to alight on.⁶⁶ Thus Bergson is a proponent of the universal fullness of things, denying our negative ideas ontological weight.⁶⁷ Turned to the idea of possibility, Bergson says the “absence of hindrance” is negative because he is looking for particular, definite possibilities and does not find them. But declaring “absence of hindrance” negative is merely to suppress what it is. What is suppressed? Bergson does not elaborate, as his aims do not require it. But Whitehead’s eternal objects could be the elaboration since they are not the particular and definite possibilities that need to be avoided to secure a place for novelty, as I hope to have shown. And in elaborating the suppressed nature of possibility, eternal objects provide an example of how possibility can coexist with novelty. Without this elaboration, we are left with the same choice as Bergson—a choice between novelty and possibility.

Final Reflections

In order to firmly situate novelty within a theory of possibility, something different from the usual interpretations of Bergson and Whitehead is needed. Bergson is generally read as hostile to possibility, as the usual sense of possibility eliminates a thing’s novelty. Giving no (positive) alternative to possibility, we must either reject novelty or reject possibility. Whitehead suffers from the persistent misreading that eternal objects ultimately come down on the side of possibility, not novelty. But I have offered an alternative: there is a suppressed possibility within Bergson that still admits for novelty, and Whitehead’s eternal objects are an expression of this type of possibility. In this way I hope to have corrected some mischaracterizations of both thinkers and that these corrections show them to be more complete and compatible as regards a theory of possibility.

The key insight of Bergson is that to be novel, something cannot have prior being—or preexistence—in the present. Determined possibilities, linked as they are to some item, event, or state of affairs, give future actuality being in the present and thus destroy the possibility of novelty. The fact that eternal objects do not correspond to any particular actually is essential. Because eternal objects do not indicate any particular actuality as possible, that actual thing has no being—potential or

otherwise—in the present, and thus when it comes into existence it will be a novel thing. Whitehead has reconceived possibility, merging it with the classic notion of universals and shedding the idea that possibilities must be definite or correspond to actualities. Eternal objects can thus be thought of as an extension of a Bergsonian theory of possibility.

Linking Bergson and Whitehead together in this way gives credence to the idea of a novelty-friendly theory of possibility, and Whitehead provides the tools to address some additional challenges that face a metaphysics of novelty, such as foresight. Furthermore, since Whitehead's theory extends beyond eternal objects into a theory of propositions, there are additional resources for entering this theory of possibility into contemporary discourse. Though I have only discussed a small part of Whitehead's and Bergson's theories, I believe the foundations are laid for further productive inquiry into the metaphysics of possibility.

Notes

1 Henri Bergson, "The Possible and the Real," in *The Creative Mind*, trans. Mabelle L. Andison, 91-106 (New York: Carol Publishing Group, 1992): 104

2 *ibid*: 99-100

3 Henri Bergson, "Introduction I," in *The Creative Mind*, trans. Mabelle L. Andison, 11-29 (New York: Carol Publishing Group, 1992): 21

4 Bergson, "The Possible and the Real," 104.

5 *ibid*: 91

6 *ibid*: 91

7 *ibid*: 105

8 To be more accurate, a statement such as "I will go grocery shopping tomorrow" implies a family of possibilities. I could go to the grocery store down the street, the one on the other side of town, I could take a plane to California

where I will stay for a week and find a store there...and on and on. But each particular and specific scenario is possible. It is possible for me to do some number (perhaps infinite) of definite and particular things. It is the particularity of such possibilities that is most important in this discussion.

9 Bergson, "The Possible and the Real," 102.

10 *ibid*: 101-102

11 *ibid*: 101

12 Hereafter, “possibility” and “the possible” will refer to “positive possibility.” “Negative possibility” will always be indicated as such or as something that is “not impossible.”

13 Bergson, “The Possible and the Real,” 100.

14 Henri Bergson, "On The Pragmatism of William James. Truth and Reality," in *The Creative Mind*, trans. Mabelle L. Andison, 209-219 (New York: Carol Publishing Group, 1992): 214-215

15 Bergson, “The Possible and the Real,” 97-98; quote – 94.

16 Potentiality is an appropriate term to distinguish the positive possibility that is still general from the definite positive possibility that eliminates novelty because ‘possibility’ seems to allude to a particular item or scene while ‘potentiality’ carries with it a feeling of generality and thus retains the required sense of vagueness.

17 Alfred North Whitehead, *Science and the Modern World* (New York: The Macmillan Company, 1925): 229

At various times, Whitehead uses the terms “potentiality” and “possibility” to describe the metaphysical status of eternal objects. William Hammerschmidt suggests that Whitehead’s use of “potentiality” and “possibility” is equivalent since his uses have an extraordinarily wide connotation, including elements of value and purpose. So in Whitehead’s language an eternal object is both a possibility and a potentiality. Following Hammerschmidt and Whitehead, I take the fundamental metaphysical characteristics of possibility and potentiality to be equivalent, and may refer to eternal objects as either depending on the context. Note, however, that in the context of Bergson the terms are not equivalent; Bergson has a narrow notion of possibility that does not admit of generality.

(William H. Hammerschmidt, *Whitehead's Philosophy of Time* (New York: King's Crown Press, 1947): 90)

18 Alfred North Whitehead, *Process and Reality: Corrected Edition*, ed. David Ray Griffin and Donald W.

Sherburne (New York: The Free Press, 1978): 22, 23

19 *ibid*: 22, 158

20 *ibid*: 184

21 *ibid*: 22; quote – 166

22 *ibid*: 28

23 *ibid*: 73

24 *ibid*: 44; c.f. Whitehead, *Science and the Modern World*, 122

25 This sense of difference is roughly our sense of the contingency of things.

26 Whitehead, *Process and Reality*, 31.

27 *ibid*: 31, 257

28 *ibid*: 257

29 Whitehead, *Science and the Modern World*, 241.

30 Whitehead, *Process and Reality*, 31, 207.

In this sense, the creativity and creation of the world derives from God, insofar as potentiality is a positive fact in creation. But it would be too strong to say that God creates the world; the agency, the decision, in creation lies within the temporal actualities being created (Whitehead, *Process and Reality*, 43). Also note that Whitehead is aiming for the “secularization” of God’s function in the world (Whitehead, *Process and Reality*, 207), so this *metaphysical* discussion carries no particular religious overtones.

31 Peter Gunter, "Gilles Deleuze, Deleuze's Bergson and Bergson Himself," in *Deleuze, Whitehead, Bergson*, ed.

Keith Robinson, 167-180 (New York: Palgrave Macmillan, 2009): 178-179

32 C.f. Plato, *Timaeus*, 37d

33 Whitehead, *Process and Reality*, 338.

34 *ibid*: 23; Alfred North Whitehead, "Time," in *Proceedings of the Sixth International Congress of Philosophy*, ed. Edgar Sheffield Brightman (New York: Longmans, Green and Co., 1927), 59-64: 60

35 Whitehead, *Process and Reality*, 23.

36 *ibid*: 23

37 *ibid*: 61

Continuity here is taken to be a sort of undivided divisibility (Whitehead, *Process and Reality*, 62). Applied to potentiality, an eternal object, as a form of definiteness, would then be subject to an infinite variety of divisions (determinations), the divisions being the actual things achieving concrete realization (Whitehead, *Process and Reality*, 63). And eternity, the source of many worries about Whitehead’s possibilities, need not be troublesome.

Time is a moving image of eternity in that every actuality is a division in the undivided divisibility of potentiality and thus is a particular exemplification of what is eternally, or purely, possible. The *movement* of time is ‘perpetual perishing,’ and Whitehead favors this in his discussion of time (cf. Whitehead, *Process and Reality*, 29, 340).

38 *ibid*: 231

39 *ibid*: 343

40 *ibid*: 32

41 *ibid*: 60

42 *ibid*: 60

43 *ibid*: 229

44 And remember that eternal objects are abstracted from potentiality; meaning things like ‘blue’ and ‘tree’ do not exemplify potentiality as such. The more complex the eternal object is, the more abstract it is (Whitehead, *Science and the Modern World*, 239, 241). Abstraction from potentiality means there is an approach, so to speak, towards actuality. Thus to conceive of complex eternal objects, we only need a relatively minor abstraction from our own experiences and memories. But such abstraction is always derived from things that are past, and thus we must be careful in applying complex eternal objects to the future, where other elements of ‘potentiality as such’ may arise. In other words, the past is the source of our knowledge of eternal objects, while the future remains open, undecided, and a more true representation of potentiality.

45 Whitehead, *Process and Reality*, 60. These “where” relations include, importantly, spatial and temporal relations.

46 *ibid*: 229-230

47 Note that Whitehead’s real and abstract essences invert the standard way of thinking about essences: a traditional “essence” is Whitehead’s abstract essence, while his *real* essence involves and emphasizes the traditional “accidents.”

48 Whitehead, *Process and Reality*, 226.

49 Actualities, specifically past actualities, are included because they figure in as a sort of “non-pure” potential in Becoming, since “it belongs to the nature of a ‘being’ that it is a potential for every ‘becoming’” (Whitehead, *Process and Reality*, 22).

50 Whitehead, *Process and Reality*, 20.

51 *ibid*: 45

52 Bergson, “The Possible and the Real,” 102-103.

53 Whitehead, *Process and Reality*, 189.

54 One will notice that I have generally been writing as if the potential and actual were two separate realms. This is not true for Whitehead: the possible and actual are intimately interconnected and

ultimately grounded in the actual. The precise mechanics of this interplay are too lengthy to get into here, and generally irrelevant to the task at hand. Speaking of the realms as completely distinct is simply more convenient for exposition.

55 Whitehead, *Process and Reality*, 86.

56 Alfred North Whitehead, *Adventures of Ideas* (Cambridge: Cambridge University Press, 1933): 161

57 Whitehead, *Process and Reality*, 204-205.

58 *ibid*: 207

59 Bergson, "Introduction I," 21.

60 Bergson, "The Possible and the Real," 94.

61 Whitehead, *Process and Reality*, 219; Alfred North Whitehead, *Symbolism* (New York: The Macmillan Company, 1927): 36-37

62 Whitehead, *Process and Reality*, 23, 65.

63 Bergson, "Introduction I," 21; Bergson, "The Possible and the Real," 102

64 Bergson, "The Possible and the Real," 97.

65 *ibid*: 97

66 C.f. Malebranche: "To think of nothing and not to think at all, to perceive nothing and not to perceive at all, are the same thing."

Nicholas Malebranche, *Dialogue between a Christian Philosopher and a Chinese Philosopher on the Existence and Nature of God*, trans. Dominick A. Iorio (Washington, D.C.: University Press of America, 1980): 67

67 Bergson, "The Possible and the Real," 98.

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**Eco-sophia in “the Wisdom as prajuna viz. Love as agape”
-through the change of paradigms-**

HANAOKA Eiko (Osaka Prefecture University, Japan)

eh@eikohanaoka.org

1. The problem of paradigms between knowledge and wisdom

The wisdom and the knowledge are generally distinguished. The knowledge consists in the mere inborn reason as understanding, namely in the mere intellect without ground of feeling and will. On the contrary the wisdom is grounded on the oneness of the body and mind in which the intellect, feeling and will are not yet separated. In other words the knowledge and the intellect are founded on the mere objective, abstract rationality.

However the wisdom is founded on the love as agape or compassion in which the intellect or the inborn reason is based on the feeling and will. These differences seem to result from the various paradigms, which are the framework of the way of thinking and cultures and simultaneously the ground of them.

Such paradigms will be different according to such things as the age, the region and the field. For example, Thomas S. Kuhn (1922-1996) discussed the paradigm shift in the period before and after Newtonian physics in the field of physical science¹. Protestant systematic theologian Paul Tillich (1886-1965) divided the history of the world with the contents of the concept “anxiety” into the three ages (=the ancient times with the concept of ontological anxiety, the middle ages with moral anxiety and modern ages with mental anxiety), and moreover the developmental stages of the individual with the same concept of “anxiety” into three stages (=the childhood, the young-manhood and the manhood²) in the field of philosophy of religion. Furthermore, Catholic theologian Hans Küng (1928-) developed the way of paradigm shift from the standpoint of Christianity³. Moreover, in the field of economics we can find also the paradigm shift from capitalism and socialism to the fraternal economics⁴.

In this paper I would like to consider the five paradigms, which can be commonly applied in the East and the West, to enquire into the possibilities of Eco-Sophia as the wisdom of the harmonious togetherness between nature and living things including human beings with the wisdom in the global dimension in the field of the philosophy of religion. The reason is that after the theory of relativity (1905) by Albert Einstein (1879-1955) and of quantum theory by Niels Bohr (1885-1962) through Max Plank(1858-1947) and Einstein, and after the events

¹ Cf. Thomas S.Kuhn, *The Structure of Scientific Revolution*, the University of Chicago Press, Chicago, 1962, Chapter 8. Japanese translation by Shigeru Nakayama, Misuzu Press, 1982, S.88f..

² Cf. Paul Tillich, *Der Mut zum Sein*, Furche Verlag,1968, p.37-67.

³ Cf. Hans Küng, in *Zen Buddhism Today*, No.5, 1987, The Kyoto Seminar for Religious Philosophy, p.12f.. Hans Küng, *Global Responsibility – in Search of a New World Ethic* - , Continuum Press, New York,1993, p.123.

⁴ Kobayashi Yaroku, *21seikino keizaigamu - Smith · Marx · Keynes wo koeru shin postmodern no keizaigaku-*, Bungeisha Press,1999, Tokyo.

of Auschwitz in Europe by Germany, and the dropping atom bombs in Hiroshima and Nagasaki in World War II by U.S.A. the four paradigms as the framework and simultaneously the ground of thinking and the phenomenal world excluding the paradigm “absolute nothingness” cannot be any more completely applicable for these new problems. In the former case the relativity of time and space is advocated and the law of causality is collapsed. In the latter case the problem is moral, because it is not a permitted action from a group to another group, or from a nation to another nation, that an atomic bomb is dropped, even if it were in an international war. The accidents at the Fukushima 1st atomic power plant on 11 March this year after an earthquake and tsunami is also related to the latter case.

Now, the five paradigms, which are common to the East and the West, are relative being, relative nothingness, absolute being, nihil and absolute nothingness. The first paradigm “relative being” is the framework and the ground of the phenomenal world, which consists of the finite relative beings, will rot away with time. This paradigm was and is applied from the ancient natural philosophy to contemporary world. The second paradigm “relative nothingness” is the framework and the ground of the thinking for which all of the phenomenal world is uncertain, anxious, despairing or tedious. The representative, who philosophized with the second paradigm, was Søren Kierkegaard (1813-1855). The third paradigm “absolute being” is, for example, idea, ousia (essence), eidos (form) or theos (God), which is eternal, universal and unchangeable.

The first and second paradigms ask for the rescue of heart and mind. If the rescue of body and mind cannot be achieved with the above mentioned three paradigms, and the throne, on which the eternal, universal and unchangeable earlier was laid, becomes vacant and only nihil remain there, then this gives rise to the fourth paradigm “nihil”. The ground of the paradigm “nihil” is the abyss of nihil, and in the world on this paradigm all kinds of nature and environments are destroyed.

However, the fifth paradigm of “absolute nothingness” as the framework and the ground of the thinking and phenomenal world which was advocated by the first Japanese creative philosopher Kitaro Nishida (1870-1945), is the paradigm, which can subsume and support the above mentioned four paradigms and the thought and culture based on them.

The paradigm of “absolute nothingness” supports the function of the other four paradigms with agape and compassion, which springs out from the action of absolute negation of substantiation and absolutization of the paradigm “absolute nothingness” and its standpoints. In this meaning we need a paradigm shift in the contemporary world, in which the harmony in various fields is very different.

The knowledge and the mere intellect are generally founded on the paradigm “absolute being” and “relative being”. In this case each individual lives as ego by nature. The individual in the dimension of species like state, folk, tribe, group etc. makes efforts for the prosperity of his/her own species, to which he/she belongs. In the dimension founded on the paradigms of “absolute being” and “relative being” it will be very difficult, that eco-sophia as “the wisdom as prajuna” can be realized, although the scientific spheres will be intensively developed.

On the contrary, in the dimension of the paradigm of “relative nothingness” the egoistic ego is gotten rid of to

the existence. However, in the stage of existence the anxiety, despair, ennui etc. dominate. To live with another person or other people, animals and plants, therefore, is not easy. In this stage on the ground of paradigm “relative nothingness” the mere knowledge and mere intellect on the ground of the reason by nature, namely understanding is detached. However, the wisdom as *prajuna* is not yet born in this paradigm “relative nothingness”. In this paradigm “the learned ignorance” (Lat. *docta ignorantia*) like in Socrates (469-399 B.C.) and Nicolaus Cusanus (1401-1464) can not any longer have a stable influence on other persons. The reason being that feeling and will do not underlie “the learned ignorance”, although the learned ignorance overcomes the dimension of the knowledge and the intellect, in which the objective and abstract way of thinking dominates. The wisdom, in which body and mind are in oneness, and its foundation, namely feeling and will were firstly looked upon as the ground of thinking vaguely in Kant’s *“Critique of Judgment”* (1790) and decisively in the organic philosophy of Alfred North Whitehead (1861-1847) and K. Nishida.

In the paradigm of “relative nothingness” the ego of each individual and strong consciousness of each own species of each person is gotten rid of. However, the wisdom of *eco-sophia* is not yet born. Nevertheless excellent literature and artistic works can be born in this dimension. The reason being that in this dimension where vanity dominates, the helpless heart and mind of each existence are expressed.

Now, before the wisdom as *prajuna*, namely the *eco-sophia* is born in the existence, there is the stage of life in the dimension of the paradigm of “nihil”. If the individual cannot ask for any rescue in the dimension of the paradigm of “relative being”, “relative nothingness” and “absolute being”, he/she tries to live in the dimension of nihil. The contemporary world seems, as it were, to be on the abyss of nihil. By the people on this abyss of nihil, who are always attached to the power, riches, violence, avarice etc., nature including the inside and outside of human beings, only from which the creativity can be born, continues to be polluted. Furthermore, the environment, only in which the human beings can live and which basically is the house of all nature, continues to be destroyed. This situation in the contemporary world is the nihilistic world without finding the significance, the purpose and the value to live on the earth, what Nietzsche (1844-1900) prophesied as the circumstances after 200 years.

One way, with which the above mentioned nihilistic world can be overcome, is the way with the paradigm of “absolute nothingness” advocated by K. Nishida. The reason is that the life on the ground of absolute nothingness denies the absolutizing and substantialization of its own standpoint, but rather supports the life and culture on the ground of the other four paradigms with its own dynamic action of love as *agape* and compassion. The standpoint of the paradigm of “absolute nothingness” in detail is as follows: With the denying of its own standpoint the standpoint of absolute nothingness becomes zero. However, the standpoint of zero cannot also be absolutised, the standpoint of zero is therefore again denied. From this action of the double negation, *agape* as divine love or compassion springs out. The action of absolute negation of the substantializing and absolutizing of the standpoint of absolute nothingness ceaselessly continues. The love as *agape* or compassion therefore springs out always from the action of the self-negation of the absolute nothingness. The paradigm of “absolute nothingness” can be opened through religious disciplines such as Zen-sitting, Buddhist prayer, Christian prayer, art, sports for self-discipline or through the encounter with people, who look upon their own standpoints neither as

substantial nor as absolute.

The experience of absolute nothingness is possible also in Christianity, because God who absolutely denies his substantailization and absolutization, is shown as self-emptying God in Phil. 2,7. We cannot discuss here the subject of self-emptying God in detail. However, self-emptying God can be basically found in short in the answer from God to Moses, who asked the name of God, namely “I am that I am”. This answer by God to Moses shows that God is that who acts as becoming event and with oneness with event. Thorleif Boman (1894-1978) called such God „God as an event“, so to speak, hayatological God⁵.

From the fact stated above follows that the paradigm “absolute nothingness“ is the common paradigm to Buddhistic wisdom as prajuna and agape as the self-emptying act⁶ in Christianity. Moreover, the paradigm “absolute nothingness“ advocated by K Nishida and the eternal object⁷ advocated by A.N. Whitehead, which can be understood as idealized “absolute nothingness“ come in contact with the absolute nothingness⁸, and is common to Nishida and Whitehead. It must here be added that in the above mentioned understanding of God the wisdom from God is identical with the love as agape⁹.

Now, with the paradigm shift from the old four paradigms to “the absolute nothingness”, which is born in the moment, in which the paradigm of “absolute nothingness” as absolute negativity is experienced, the following nine important conversions on the whole should be basically realized. The matters through such a new paradigm shift to the absolute nothingness are the eco-sophical matters, through which the way to the eco-sophia can be opened. However, this paradigm shift can be firstly realized, when the efforts of each individual and the action from the paradigm “absolute nothingness“ are in oneness.

①The conversion either from the only rational (= coherent and logical) philosophical scheme or from its only empirical interpretation (applicable and adequate) to the thinking from the origin of both of them in each self here and now like in A.N.Whitehead (in whom the rational philosophical scheme is so to speak the causal efficacy, its empirical interpretation is so to speak the presentational immediacy and their Synthesis is so to speak the symbolic efficacy) and in K. Nishida (in whom the rational side is so to speak the world of the truth and its empirical side is so to speak the world of the fact and their origin is so to speak the world of rijimuge in the metaphor of Shisyu-hokkai in Kegon-sutra (=Avatamsaka-sutra).

②The conversion from the way of thinking on the ground of egocentric subject-object scheme to that of thinking by subject, which simultaneously is superject in Whiteheadian meaning and the true self like in K. Nishida.

⁵ Cf. Eiko Hanaoka, *Zen and Christianity – From the standpoint of Absolute Nothingness –*, Maruzen-Press, 2008, p.112, 125, 372,381, 461.

⁶ Cf. Eiko Hanaoka, ‘Nishida and Christianity’ in “Kyoto School and Christianity”, *Fukuin to Sekai*, No.65-10, Shinkyō-syuppansha Press,2010, p.38f..

⁷ Cf. Eiko Hanaoka, *Zen and Christianity- From the standpoint of Absolute Nothingness-*, p.437f..

⁸ Cf. Eiko Hanaoka, ‘The Kyoto School and Self-awareness in the field of the Absolute Nothingness A Comparison with Whitehead’s Philosophy’ in *The Roar of Awakening*, edited by G. Derfer, Z.Wang & M.Weber, ontos verlag, Frankfurt, 2009, p.147.

⁹ Charles Hartshorne, *Wisdom as Moderation – A Philodophy of the Middleway –*, State University of New York Press, Albany N.Y., 1987, p.49.

- ③ The conversion from the secular, horizontal understanding time, space and history to the way of understanding them from the crossroads of the horizontal understanding with the vertical like in K. Nishida..
- ④ The shift from the subjective logic since Aristotle (384-322 B.C.) to predicative logic like in A.N. Whitehead and K. Nishida, and from the latter logic to the logic of copula like in K. Nishida.
- ⑤ The change from the confrontation between natural science and humane discipline to the harmony between them on the ground of new physics like the theory of relativity by Einstein, quantum theory by Niels Bohr, uncertainty principle by Werner Karl Heisenberg (1901-1976) etc. like in Whitehead and Nishida. (Such new physics at the beginning of the 20 century are in harmony with the paradigm “absolute nothingness”).
- ⑥ The recovery of the etymological meaning of the nature in ancient Greece (=phusis) and Latin nature (=natura) from the modern concept of nature, in that the nature is understood as “the event” like in A.N. Whitehead and “the mutual limitation” between the nature and the individual like in Keiji Nishitani (1900-1990) who is one of Nishida’s disciples).
- ⑦ The change from the superiority of the mere intellect over feeling and will to the superiority of the feeling and will as the pure experience like in K. Nishida and A.N. Whitehead.
- ⑧ The change from the continuous sustainability to the discontinual sustainability. The reason being that each of the whole creation is the absolute center of this universe and simultaneously only a point on the periphery which builds the universe like in Whitehead and Nishida.
- ⑨ The mutual relation among genus, species and individual as a person changes from mutual discord and war to the mutual reconciliation, the peace, and the better environment like in Whitehead or in Nishida.

The above mentioned nine changes with the paradigm of “absolute nothingness” are possible from the origin of the various polarities in the field of absolute nothingness. In the other four paradigms excluding absolute nothingness only one pole between each of various dipolarities is emphasized. On the contrary, only in the paradigm of absolute nothingness the substantiation and absolutization of its own standpoint are absolutely negated. From these negations in the field of absolute nothingness the love as agape and the compassion spring out, and this love as agape and compassion support each of the other four paradigms and the culture and the lives on their paradigms. The wisdom of togetherness as eco-sophia (= the wisdom of prajna viz. love as agape) can be possible firstly in the field of absolute nothingness. The realizing of eco-sophia is of course not so easy. However, it will be promoted step by step, when each of us can experience the fullness of time, namely the moment, in which time and eternity are in oneness, even if it were only a moment.

2. Eco-sophia in human beings and nature

Ecology contains the “mode” of each living things and the idea of “nature preserve”. When the ecology is understood from the Greek etymological origin, “eco-“ (Greek oikos) means the house and “-logy” means science. In this etymological meaning the environment as the field of each living thing and nature, which is concerned both in inside and outside of each living thing, are deeply related. So, we would like to consider the eco-sophia from the standpoint of the person and the nature.

Now, when a person only objectively understands and observes nature, the nature is controlled and exploited by a

person in spite of his/her being a part of the nature. In such cases nature becomes “the natural scientific nature” since modern ages like in Francis Bacon (1561-1626). In this case the human being and nature are separated, technology tends to ignore the humanity and nature is destroyed by the control and exploitation by human beings. On the contrary, when the human being and nature live in a harmonic oneness, the nature will be able to be characterized by “pure literary nature”. However, when each of us cannot be aware of the oneness of each of us with nature, technology is separated from the natural humanity, and then the eco-sophia will not be realized. The reason is that the individual is not aware of the original meaning of “nature”. As an example of such cases, the accident at the atomic power plant in Fukushima (March 11, 2011) can be given. The Greek of nature is “phusis” and its meaning is to unfold of itself, as Martin Heidegger (1889-1976) says in German “von sich her aufgehen”. According to Heidegger “to unfold of itself means “to let appear”, namely “to create a thing” as poiesis (=creative production). The etymology of the Latin word “natura” is nasci (=to be born), which means the essence and to be born. This meaning corresponds to Greek “poiesis” (=to produce creatively). These original meanings of “nature” can be found neither in “the natural scientific nature” since modern ages nor in “the pure literary nature”.

The original meaning of nature as poiesis not only subsumes the four paradigms, but also can be realized in the paradigm “absolute nothingness”, which supports the other four paradigms with love as agape and compassion. In the original nature on the ground of self-awareness of that each person is a part of nature, the technology can contain the meaning of the beautiful art which is also the etymological meaning of Greek techne (=technology). With the self-awareness of such original nature the eco-sophia seems to be truly realized.

Low-carbon Technological Paradigm in Urbanization of China

HAO Dong (China Community Party School, China)

zydxhd@163.com

Abstract

With the development of the industrial civilization in the 20th century, human has the science and technology to create the great productive power and social fortune. So, science and technology have become the basic content and key lever for development of human civilization. The science and technology is also the power of urbanization. At the same time, due to the effects of the technological alienation, the environment pollution, the resource crisis, the breakdown of biologic variety have appeared and become more and more serious. Facing the severe environment problem gradually, the human begin to review the relationships between human, nature and society and want to find a good way by constructing the eco-civilization. The basement of the eco-civilization is the innovation of technology. The core of innovation of technology is the low-carbon technological paradigm. Starting from the combination of logic and history, this paper makes a deep analysis on the connotation and character of modern technological paradigm, discusses existing problems and dilemma of modern technology, analyses thoroughly and reveals deeply counter-ecology of modern technology and four kinds of drawbacks. This paper also make a further study on how the Chinese government deal with the challenge and opportunity of the low-carbon technology paradigm and the urbanization.

Key words: low-carbon city; green development ecological civilization

1 The influence of urbanization

Technology is the most important power in the human history. Especially after the industry revolution, technology become the invisible hand of the urbanization. The percent of city people in the 1880 is 5.1% but it increase to the 48.7% in the 2005. More an more people choose to live in the city and the number of people who live in country is reducing. There are not only the happiness and heath in the city but also lots of problem. Urbanization in the People's Republic of China increased in speed following the initiation of the reform and open policy. By the end of 2010, the mainland of the people's Republic of China had a total urban population of 665.57 million or 49.68 percent of the total population.

The rural-to-urban population fraction has continued to decline dramatically over the last two decades. In 2001, 64% of the population resided in rural areas, down from 74% in 1990. Meanwhile, the annual population growth rate was estimated at 0.59% (2006 estimate), and approximately 94% of the population occupies 46% of the land.

Concurrent with the decreasing rural population and increasing urban population, China's industries and economic activity are moving to urban areas.

In the long term, China faces increasing urbanization; according to predictions, nearly 70% of the population will live in urban areas by 2035. By 2025, China's urban population is expected to rise to 926 million from 572 million in 2005 and to one billion people by 2030. Over the next two decades China will build 20,000 to 50,000 new skyscrapers and more than 170 cities will require mass transit systems by 2025.

While China has coped more effectively than many countries with the demands of urbanization, a number of issues need to be tackled urgently.

Jobs and infrastructure. Between now and 2025, it's likely that another 200 to 250 million people will migrate to China's cities, adding to an existing mobile population of about 155 million. Providing jobs and infrastructure for this anticipated inflow of people poses major challenges. Rapid economic growth will remain critical, with further deepening of the capital markets needed to help finance urbanization.

Energy. Urban residents use 3.6 times as much energy as rural residents; suggesting that energy use is far from its peak. Also, energy intensity (consumption of energy per unit of GDP) is 7 times that of Japan and 3.5 times that of the United States.

Motorization. While the government has identified motor vehicles as an important subsector, the country needs to weigh the pros and cons of further motorization, which leads to urban sprawl, higher energy consumption, and pollution.

Land for agriculture. Urban sprawl also needs to be contained because it will be important to have enough arable land in China for agriculture, given high commodity prices and rising consumption.

Water. China suffers from water scarcity, with just over 2,100 cubic meters of water available per person—one-third of the world average. The situation is more precarious in the northern part of the country, where climate change may worsen arid conditions.

Climate change. Climate change will affect heavily populated low-lying areas. There are likely to be major infrastructure requirements to protect these areas from sea-level rise and flooding.

2 The defect of the modern technology paradigm

Urbanization is the character of the modern society which is on the base of modern technology. There are many conflict between the nature production and society production. The core of society production is the modern technology paradigm and the principle of production and organization of technology paradigm are nonlinear and acyclic. Emit large quantities of waste is the character of modern paradigm. The success of modern technology in economic and society accuse the failure of ecology civilization.

Urbanization-dependent paradigm is built on modern technology were completely trapped in the framework of technology. Technological domination and control are the tools of human technology planning in accordance with the route to action. Ecological environment is wanton plunder and exploitation of raw materials, increasing utilitarian thinking, resulting in serious ecological crisis humanity.

Defect in the development of the theory of modern technology

Traditional industrial paradigm is the "raw material-product-waste"development model that is typical of non-circulating, a lot of waste and unsustainable model of development. Mass production, mass consumption and mass waste bring a devastating blow to the global ecosystem. Human think that the technology meets the needs of the society. Economic development makes into a seemingly inexhaustible nature resource base.

Defects on the development goals

The traditional model of development rely on the theory of GDP. Human think the high industrial growth rate and the level of industrialization of the country as a sign of modernization. It brought a sharp harsh environment, lack of resource and biodiversity loss. Human society fell into a final lack of ecological foundations of sustainable development.

Defects of value

The value of the paradigm of modern technology is anthropocentrism. The anthropocentric belief is that human beings are the sole bearers of intrinsic value or possess greater intrinsic value than non-human nature. It is therefore acceptable to employ the resources of the natural world for only human ends—a view that has come in for sustained criticism from ecocentric philosophers, who argue that it amounts to little more than a species bias, or 'human racism'. Anthropocentrism takes effect on the promoting of human civilization and help people to become self-awareness but it take the human needs as the only standard. It cause human to satisfied themselves at all cost and influence the process of natural ecosystem and the relationship between the human and nature.

3 China green development strategy

The green development strategy has six supporting pillars, each with its own section in the plan: actively responding to climate change; strengthening conservation and management of resources; developing the "circular economy"; enhancing environmental protection; promoting ecological protection and restoration; and strengthening systems for water management and disaster prevention and alleviation.

Green development targets are also more apparent in the new FYP. Population goals aside, the number of resource and environmental targets accounts for 33.3% of the total, up from 27.2% in the 11th FYP. It

also sets the key aims that will frame China's response to climate change. These include: reductions in carbon-dioxide intensity, reductions in carbon-dioxide emissions – by increasing the proportion of non-fossil fuels in energy structure – and the creation of new forest areas to boost forest cover, timber reserves and carbon sinks.

The 12th FYP sets out both “carrot” and “stick” approaches. For the first time, this FYP aims to reform resource pricing and establish a system of payment for environmental services. It requires stronger assessment of responsibility for energy-saving and emission-reduction targets, appropriate control of total energy consumption and the application of green development in all economic activity.

Also for the first time, the 12th FYP puts forward an “ecological security” strategy. In areas where development is limited or banned, ecological protection will be rigorously enforced and green buffer zones will be used to shield vulnerable land. There will also be funding for specific ecological restoration projects, so that our children and grandchildren will be able to enjoy a beautiful China.

The 12th FYP is a true green development plan, which marks China's entry into a green development era. It is a historical moment: the point at which China launches – and joins – the global green revolution and adopts a concrete plan of action for responding to climate change. The positive effects will be felt worldwide.

4 Practice and Patterns of Low Carbon City Development

Low-carbon urban development to achieve a coordinated development of environment and economy. In order to build low-carbon cities, as the goal, the Government through the development and implementation of development policies to promote low-carbon economy, to guide enterprises to develop green industry, increase resources and energy utilization efficiency and achieve rapid economic growth, while reducing resource consumption and pollutant emissions, environmental protection and economic growth can be achieved win-win situation. Low-carbon city this new thing, the current continued to show rapid development momentum. But low-carbon economic zones" or renewable energy economy zones" such as a large number of construction also contributed to photovoltaic, silicon and other industries excess capacity. The low-carbon city is not easy, and it is a need for long-term, ongoing process of change. Low-carbon industries, low-carbon technologies and low-carbon consumption is building "low-carbon city" of the three pillars of. In these three areas, Chinas low-carbon urban development faces great challenges. Low-carbon industry, the proportion of total economic output, and can support low-carbon city development; low level of low-carbon technologies could not meet the needs of low-carbon city development; low-carbon consumption, did not form a social atmosphere and constraining the healthy development of low-carbon city. synthesized "low carbon society" as a target model, and three transitional patterns: low-carbon industry as driving force, "low-carbon supporting industry" ,and"point

to surface"as the model. China needs to explore a low carbon transition path in the process of industrialization, and the construction of low-carbon city should focus on economic structural adjustment in line with the principle of development in priority and explore new economic growth points. A low carbon demonstration area could help city to get experience no matter what, while low carbon industry as driving force and low-carbon to supporting industry patterns should be chosen according to local conditions. However, transitional patterns are adopted, cities should focus on the spreading of low carbon ideas and accomplish the target of a low carbon society with a long-term strategic vision and a reasonable comprehensive urban planning.

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The Ontology of Collective Individuals and the Process Turn

Brian G. HENNING (Gonzaga University, U.S.A.)

henning@gonzaga.edu

DRAFT

A year ago this month (January 21, 2010) the Supreme Court of the United States arrived at a stunning ruling in *Citizens United v. Federal Election Commission*. On a 5-4 vote, the Court ruled that the First Amendment's injunction that "Congress shall make no law ... abridging the freedom of speech, or of the press..." applies equally to both human persons and corporations. As Justice Kennedy writes for the majority, "The Court has thus rejected the argument that political speech of corporations or other associations should be treated differently under the First Amendment simply because such associations are not „natural persons” (Kennedy 26). Many of the arguments against this ruling have been consequentialist in nature, focusing, for instance, on the unfortunate role that unrestricted corporate spending will have on the outcome of elections. While these consequentialist concerns are worthy of serious consideration, today I am interested in using this ruling as a context for evaluating the ontological status of what might be called "collective individuals." Ontologically speaking, are corporations the sorts of individuals who are deserving of First Amendment protection?

I am going to approach this question somewhat obliquely by first examining scientific research on several different types of collective individuals and using this research as a standard for evaluating the adequacy of traditional substance and physicalist ontological accounts of individuality and identity. My claim is that, contrary to the dominant philosophical traditions, individuality and identity are not tidy, binary categories but are a matter of degree, more or less. Given this conclusion, I will argue that neither a traditional substance ontology nor a reductive physicalist ontology gives an adequate explanation of the nature and emergence of collective individuals. Instead, what is needed is a complex, organic model like that found in the philosophy of organism developed by Alfred North Whitehead.

Over the last few years I have become increasingly interested in the ontological status of collective individuals, from the small scale of social insects, to the planetary scale of the Earth as a whole. These are some of the most vibrant and exciting frontiers of science today. For instance, trying to understand how millions of insects can coordinate their behavior so closely that they function as a single, collective organism introduces fascinating problems regarding individuality, identity, responsibility, the boundary between living and non-living, the origin of societies, and perhaps a key to the origins of life and consciousness. Not only is this research fascinating in its own right, it is philosophically interesting

because it challenges long-held views about the nature and scope of individuality and responsibility.

I first became fascinated by mound building termites when I happened on an article by the biologist J. Scott Turner. I was immediately drawn to Turner's work, not only because of the quality and clarity of his research, but because, unlike many of his colleagues, he seemed quite interested in exploring the philosophical implications of his scientific research. He saw clearly that his work brought him into direct conflict with the strong reductionist and physicalist currents within biology.

Much like Whitehead 75 years before him (cf. esp. *Science and the Modern World* (1925), and *Process and Reality* (1929)), Turner bemoans the reductionism of modern biology, which, he argues, "has relentlessly pursued an understanding of life as a mechanism, as a special case of chemistry, physics, and thermodynamics" (*The Extended Organism*, 2).¹ Indeed, Turner notes that the mechanistic model is so dominant within contemporary biology that any position that questions it is "regarded as somehow suspect or deficient in intellectual rigor" (213). Despite its hegemony, Turner nevertheless claims that neo-Darwinism is "looking a bit frayed and dowdy," that it has "become scholastic, with all its best insights behind it" (214).

Despite his critical approach, it is a mistake to infer that Turner is rejecting the modern synthesis. Indeed, he sees his position as complementary with, not contradictory to the gene-centric focus of molecular biology and its "extended phenotype." Turner's claim is not that evolutionary biology is incorrect, but that, by itself, it is inadequate. Whereas evolutionary biologists such as Richard Dawkins see the extended phenotype "as the extension of the action of genes beyond the outermost boundaries of an organism and asks how these extended phenotypes aid in the transmission of genes from one generation to the next" (2), Turner's work sees the extended organism as the extension of the action of agents beyond the physical boundaries of an organism to include built structures and asks how these "extended organisms" might make evolution by natural selection possible and may in fact help explain the origins of life itself.

Turner looks to overcome the mechanistic metaphor by recovering and expanding the concept of an "organism," which, he notes, has "become essentially an illusion, a wraith obscuring the „real biology of the genes, bound together in a conspiracy to promote the genetic interests of its members" (2). Turner explains that it was his work with termites that helped him to recognize that one cannot separate the individual insects from the built environment which makes them possible.

Termites, Turner explains, are unable to digest the bits of grass, bark, dead wood, and dung that they swallow. Instead, each species of termite cultivates a particular species of fungus that can break down the material into a digestible form. However, this digestive arrangement significantly increases the oxygen requirement of the colony, since the fungus requires five times the oxygen of the termites. According to Turner, "This fungus, together with the bacteria and other soil microorganisms, raises the oxygen requirement to the amount needed by a cow. ... A cow buried alive would soon die without access to air, and so it is with a termite colony: without ventilation, it would suffocate."

The mound, he learned, is not a residence or even a defensive structure, it is an external lung. By building the mound up, vertically, the natural force of the wind exchanges the air through the network of capillary tunnels. “Thus,” Turner concludes, “the regulated environment, maintained by a constructed physiological organ – the mound – furthers the interests of both groups of inhabitants [the termites and the fungus]. The termite colony – insects, fungus, mound, and nest – becomes like any other body composed of functionally different parts working in concert and is ultimately capable of reproducing itself. Taken as a whole, the colony is an extended organism”. The subterranean nest is like the skin or skeleton of an organism, the fungus serves as its digestive system, the mound the respiratory system, various castes serve as the reproductive, sensory, immune, and nervous systems. Though a complete organic unity itself, a single termite is unintelligible apart from the collective organism of which it is a part.

Turner’s work with insects has led him to a much broader conclusion. In his 2007 book, *The Tinkerer’s Accomplice*, he argues that “organisms are designed not so much because of natural selection of particular genes has made them that way, but because agents of homeostasis build them that way” (1). Indeed, he goes so far as to claim that “nothing about evolution makes sense except in light of the physiology that underpins it” (13). Turner contrasts his position with the dominant, gene-centric model in the following manner:

Conventionally, Darwinian fitness is *thing*-based, measured in terms of replication of discrete things. In “traditional” Darwinism, for example, the replicate is the offspring, while to a Neo-Darwinist, it is the atom of heredity, the gene. ... The fitter gene is the one whose bias reaches further into the future. A physiological process can also bias the future, and by this criterion could also qualify as heritable memory. In this instance, the forward reach in time is embodied in *persistence* of the process: how likely is it that the orderly stream of matter and energy that embodies the process will persist in the face of whatever perturbations are thrown at it? A fit process is therefore a persistent process: if a particular catalytic milieu, or a particular embodied physiology, can more persistently commandeer a stream of energy and matter than can another, the more persistent stream will be the fitter. Homeostasis, therefore, is the rough physiological equivalent of genetic fitness: a more robust homeostasis will ensure a system’s persistence over a wider range of perturbations and further into the future than will a less robustly regulated system (Turner, *Tinkerer* 218-19).

Turner is so confident of the findings of his research that in his forthcoming book, tentatively titled *The Second Law*, he will argue that homeostasis, or the ability of an organism to maintain a stable internal environment, is the second law of biology, with natural selection being the first. The analogy here is with the laws of motion and just as the second law of motion is not reducible to or derivable from

the first, he will claim that homeostasis is a fundamental law of biology not reducible to or derivable from the first, natural selection.

I find these scientific frontiers to be fascinating because they radically challenge both the substance and physicalist accounts of individuality. Individuals normally have clearly defined boundaries, a membrane that demarcates where they begin and end. Here we find that, as a single superorganism, the termite colony is extended in space and time, without clearly defined boundaries or a skin to define where the environment stops and the superorganism begins. Normally we would say that a single insect crawling on the ground is a proper individual. However, Turner's research shows that a single termite is no more an individual than a single cell in a petri dish solution. This research also muddles the usually sharp distinction between living and non-living. Here, inorganic soils, living insects and fungus all constitute a single, collective individual. These built environments shape and determine the individuals that create them, often becoming a sort of external memory that shapes the evolutionary trajectory of the individuals that maintain them.

These findings are not limited to termite colonies. Turner's research is also being confirmed by scientists working not with small communities of social insects but its planetary equivalent, what is sometimes called geophysiology or Earth system science. One of the unexpected fruits of the unprecedented, worldwide scientific investigation of Earth's climate is the conclusion that our planet is not the lifeless rock it is normally taken to be. It is increasingly apparent that the Earth is a single living system and must be studied as such. Indeed, this surprising conclusion is enshrined in the opening words of the 2001 "Amsterdam Declaration," signed by thousands of scientists at the European Geophysical Union, which states that, "The Earth System behaves as a single, self-regulating system comprised of physical, chemical, biological, and human components" (Lovelock 2009, 179). Although there is still great controversy over what is meant by the term "self-regulating," this research is revealing a planet that is far from the lifeless rock that it is normally taken to be.

As with Turner's work on termites, Earth system science is revealing that the reductive and mechanistic tendencies of neo-Darwinism is inadequate to account for the emergence of these forms of planetary-level homeostasis and self-regulation. As Richard Dawkins wrote in *The Extended Phenotype*, planetary-level homeostasis is not explicable via natural selection because it would "have all the notorious difficulties of „group selection”" (236). That is, it would be wide open to "cheats." "For instance," Dawkins writes, "if plants are supposed to make oxygen for the good of the biosphere, imagine a mutant plant which saved itself the costs of oxygen manufacture. Obviously it would outreproduce its more public-spirited colleagues, and genes for public-spiritedness would soon disappear" (236).

However, as Wilkinson (2004), Lenton (2004) and others have noted, planetary-level feedbacks and homeostatic regulation need only be *consistent* with natural selection, not be a *product* of it. For instance, Wilkinson (2004) argues that planetary level self-regulation could be the emergent result of "by-product mutualisms" similar to those found in population ecology (71).

In investment mutualisms both organisms provide some service to their partner at some cost to themselves, while in by-product mutualisms a waste product of one organism is used by its partner. Investment mutualisms are open to cheating (one partner could in theory reduce its investment while still taking the benefits).... However, many mutualisms are of the by-product type, in which there are no selective advantages to an organism's withholding its by-product. Indeed, if it were costly to prevent the partner from obtaining the by-product, then the subsequent fitness of a cheat would be lower than if it had cooperated in supplying the by-product. ... This avoids the criticisms of Dawkins, who, interestingly, used the example of oxygen production by plants, which is a by-product of oxygenic photosynthesis and thus not open to cheating. (Wilkinson 2004, 73)

Dawkins and his physicalist philosophical friends' reductive emphasis on chemistry, physics, and thermodynamics is inadequate to explain the emergence of these system-level forms of regulation. Physicalist ontology cannot make sense of the claim that the Earth System functions as "a single self-regulating system." Indeed, my claim is that traditional metaphysical accounts of individuality are unable to make sense of these non-traditional but nevertheless real forms of individuality.

I suggest that what is needed is a more robust metaphysical model that can make sense of systems of internally related, interdependent individuals which constitute integrated wholes with varying *degrees* of unity and identity. What is needed is a metaphysics that rejects absolute breaks between living and non-living, and between mental and physical, one that sees reality as a single, continuous whole. What is needed is a model that avoids static, inert conceptions of matter and recognizes the inherently dynamic, processive nature of reality. What is needed is a complex metaphysics that takes as its primary metaphor not inert bits of matter in a vast machine, but the metaphor of internally related organisms woven into systems of varying complexity such as developed by Alfred North Whitehead.

According to the organic view of individuality developed by Whitehead in response to an earlier generation of scientific materialists, there is a single genus of actuality which includes everything from the "lowliest actual occasion" to God (*Process and Reality* 110). The ontological fabric of the universe contains no true gaps. Thus, the difference between, for instance, a wildflower and a boulder is ultimately found not in an appeal to different ontological kinds but in the difference in the *degree* of "coordination" achieved in the satisfactions of the occasions of which each is composed.² In that, according to such a view, macroscopic individuality is a function of "order," to truly understand the nature of macroscopic individuals, we must first understand the complex, social relations between the microscopic events (what Whitehead calls actual occasions) of which they are composed.

The macroscopic objects which we experience – e.g., desks, birds, trees, rocks – are what Whitehead calls "nexūs" (the plural form of nexus) of actual occasions which are real, individual and particular "in the same sense" in which their constituent occasions are real, individual, and particular. Actually, to be

more precise, entities such as birds and trees are particular types of nexūs which Whitehead refers to as “societies.” While all societies are nexūs, not all nexūs are societies. For Whitehead, it is societies and nexūs, not actual occasions, which are the “things” that endure and that have adventures. “The real actual things that endure are all societies. They are not actual occasions. It is the mistake that has thwarted European metaphysics from the time of the Greeks, namely, to confuse societies with the completely real things which are the actual occasions“ (*Adventures of Ideas* 204).

On this view, a society is not an “aggregate” of “discrete,” “externally related” beings held together in an “extrinsic unity.” Rather, a society is a *socially ordered* nexus of *internally* related events that form an *intrinsic* unity. Societies are *not* mere collections or aggregates of entities to which the same class-name applies. This is the difference between a nexus and a society. Whereas a nexus is simply any real fact of togetherness, including extrinsic unities such as aggregate entities, e.g., boulders and mountains, a society is a particular type of nexus which enjoys “social order.” That is, a society’s constituent occasions share a common, defining characteristic because of the conditions imposed upon them by their *internal* relatedness with previous members of that self-same society. Hence, contrary to aggregate entities, complex structured societies such as termite colonies, plants and animals are organic entities that, like systematic entities, are characterized by, as Frederick Ferré puts it, “strong internal relations between parts that vary with one another and together perform a common function. The entity as a whole is what it is because of the [constitutive] interplay of these parts, and without them would cease to be an entity of that kind” (Ferré, *Being and Value*, 337).

However, as Turner’s work demonstrates, it is imperative that a society, whether this society be a macroscopic individual or a cell, not be taken in isolation from its larger context. Like its constituent occasions, a society must always be understood as being nested within a larger environment of actual occasions (*Process and Reality*, 90). Hence, taken together, a society and its environment form a larger nexus and, perhaps, a larger society: the electron is within the molecule; the molecule is within the cell; the cell is within the body; the body is within its ecosystem; and so on, until we arrive at the universe as a whole. The whole order of nature, therefore, consists of nests of social environments.³ A complex society which includes subordinate societies and/or nexūs is referred to as a “structured society.”⁴ A notable feature of structured societies is that they provide a favorable environment for the subordinate societies which they harbor. Of course, every structured society is itself set within a wider environment which is permissive of its (the structured society’s) continuance.⁵ Ultimately, there is no independence of existence. As Whitehead puts it in *Modes of Thought*, “We think of ourselves as so intimately entwined in bodily life that a man is a complex unity – body and mind. But the body is part of the external world, continuous with it. In fact, it is just as much part of nature as anything else there – a river, or a mountain, or a cloud. Also, if we are fussily exact, we cannot define where a body begins and where external nature ends” (21).⁶

In this way, the work of biologists such as Turner, Wilkinson, Lenton, and others may end up

vindicating Whitehead's complex account of macroscopic individuals, which has often been criticized by otherwise sympathetic scholars, such as Jim Marsh, Norris Clarke, and Bob Neville. Indeed, Turner's redefinition of "organism" is surprisingly consonant with Whitehead's own, greatly expanded use of the term. As Turner puts it, "A living structure is not an object, but is itself a process, just as much so as the function that takes place in it. ... [L]iving structures are not distinct from the function they support; they are themselves the function, no different in principle from the physiology that goes on there" (*Tinkerer* 20-21).⁷ Recognizing that an entire colony – nest, mound, insect, and fungus – is a single organic individual helps us to realize that individuals do not stop at the edge of their skin. In this way, both Turner and Whitehead are committed to demonstrating that the world is not, in Turner's words, "composed of discrete organisms" (*Extended Organism* 180). Just as Turner rejects modern biology's accounts of mechanistically determined individuals as vehicles for selfish genes, for a view of individuals as *intentional* processes designed by agents of homeostasis, Whitehead rejects modern philosophy's accounts of mechanistically determined, discrete substances for a philosophy of organism that defines individuals as teleologically oriented processes defined by complex webs of interdependence.

Whereas these forms of order are inexplicable on traditional ontological paradigms, they are expected with an organic model of individuality. According to such a view, the unity of macroscopic individuals arises out of the intense, organic interrelation and organization of the constituent actual occasions. Whitehead puts this point well in his *Science and the Modern World*, "The organic starting point is from the analysis of process as the realization of events disposed in an interlocking community. The event is the unit of things real. The emergent enduring pattern is the stabilization of the emergent achievement so as to become a fact which retains its identity throughout the process" (152). Thus, whereas a substance ontology begins and ends with macroscopic agents and a physicalist ontology reduces individuals to mechanistically determined constituents, Whitehead's organic model provides an explanatory metaphysical framework that can account for the emergence and perpetuation of various degrees of macroscopic individuality and identity. Indeed, Whitehead's account of macroscopic individuality as an emergent property of nested social organisms determined by genetic relations and forming systems of systems, may in fact do more justice to the complex reality of macroscopic individuals in community.

Notice that on this organic ontology *all* macroscopic individuality is a matter of order, a matter of degree. If the degree of order is particularly high and novelty is introduced, then it is a "living society." If it is higher still it may be a "personal society" a "metaphysical person." Though a colony of termites, may not have the same degree of intrinsic unity as a plant or animal, for instance, they are nonetheless real forms of togetherness with properties of their own. They are proper ontological individuals. Though the Earth's biota is not sufficiently organized to have a single center of experience, it does form a single dynamic system that maintains a relatively stable internal environment. What is the implication of this ontology of collective individuals for our discussion of the Citizens United ruling? It is important to

begin by noting that my analysis is limited to the question, Are corporations metaphysical persons? I do not consider the additional, distinct question as to whether a corporation is a legal person. It may be possible that a corporation is not a metaphysical person, what legal scholars call a “natural person,” but could still merit consideration as a legal person. Given more time, it would be interesting to investigate this question further, particularly regarding how an organic model of individuality might modify traditional conceptions of legal and moral responsibility.

Limiting ourselves to the metaphysical status of corporations, initially my analysis would seem to support the majority opinion that a collection of human individuals can form a single, collective or corporate individual, perhaps justifying the majority opinion that corporations are persons deserving First Amendment protections. Indeed, according to the organic model of individuality being defended, an individual human is a system of systems of individual occasions all functioning together to support the activity of a single center of experience. I, as a human person, am, in this sense, a corporate individual. Moreover, I have argued that personhood and individuality are not all or nothing. On the model presented, individuality and identity are a matter of degree. Nevertheless, although personhood and individuality are not binary traits, they are emergent properties of societies that possess sufficiently coordinated organization that they can support a regnant or dominant occasion. Given this definition, it is clear that, although a corporation is indeed more than the sum of its parts – it does obtain a degree of unity and is a sort of individual – the *level* of organization and unity is not sufficiently intense to create a metaphysical person with a unified center of experience. Indeed, a corporation is *not* even a “structured society,” much less a “personal society.” As Justice Stevens notes in his passionate dissenting opinion, “Although they make enormous contributions to our society, corporations are not actually members of it” (2). Depending on how we understand a corporation, there is reason to wonder whether they are supportive or destructive of meaningful forms of social order, organization, and individuality.¹²

Notes

1 Scott has a wonderful discussion of the inadequacy of seeing the brain as a computer in *The Tinkerer's Accomplice* (cf. 199f.)

2 Cf. “It seems that, in bodies that are obviously living, a coördination has been achieved that raises into prominence some functionings inherent in the ultimate occasions. For lifeless matter these functionings thwart each other, and average out so as to produce a negligible total effect. In the case of living bodies the coördination intervenes, and the average effect of these intimate functionings has to be taken into account” (Whitehead, *Adventures* 207).

3 Cf. Whitehead, *Process and Reality* 90.

4 See Whitehead, *Process and Reality* 103.

I am reminded in this context of John Dewey's 1930 essay “The Lost Individual,” in which he argues that

the growth of “corporateness” “operates to limit individuality, to put burdens on it, to confuse and submerge it. It crowds more out than it incorporates in an ordered and secure life” (500). Dewey notes that, unlike true “integrated “ individuals who are the “product of definite social relationships and publicly acknowledge functions” (498), corporations are limited to *external*, cash relationships (500). Men are brought together on the one side by investment in the same joint stock company, and on the other hand by the fact that the machine compels mass production in order that investors may get their profits. The results affect all society in all phases. But they are as inorganic as the ultimate human motives that operate are private and egoistic. An economic individualism of motives and aims underlies our present corporate mechanisms, and undoes the individual (Dewey, “The Lost Individual” in Stuhr 500)

According to the social ontology I am defending, then, corporations are indeed an ontological form of individuality, perhaps sufficient to warrant holding them morally and legally accountable for their actions, but their form of unity and organization do not rise to the level of metaphysical personhood. Indeed, ontologically speaking, a corporation is less of an individual than a termite colony. 13

5 See, “A structured society as a whole provides a favorable environment for the subordinate societies which it harbours within itself. Also the whole society must be set in a wider environment permissive of its continuance. Some of the component groups of occasions in a structured society can be termed „subordinate societies. . . . For example, we speak of a molecule within a living cell, because its general molecular features are independent of the environment of the cell. Thus a molecule is a subordinate society in the structured society we call the „living cell” (Process and Reality, 99).

6 Cf. “In the animal, there is the one experience expressing itself throughout the animal body. But this is only half the tale. The other half of the tale is that the body is composed of various centres of experience imposing the expression of themselves on each other. Feeling (in the sense here used), or prehension, is the reception of expressions. Thus the animal body is composed of entities, which are mutually expressing and feeling” (*Modes of Thought* 23).

7 See also, “Yet organisms cannot really *be*, that is, they are not things, but are more properly processes that *do*. They are transient assemblages of ordered matter that are sustained by an ongoing flow of matter and energy through them. These assemblages also behave intentionally, but in a different way” (145).

Continuity and Atomicity

HIRATA Ichiro (Kansai Gaidai College, Japan)

t_hirata@hb.tp1.jp

In Whitehead's philosophy, the continuity in coordinate division is contrasted with the atomicity in genetic division. So the relation between continuity and atomicity is problematic. In Whitehead's terminology, the connection of regions creates the continuity. Extensive continuum is the continuum which regions create. However, if the region in coordinate division is identified with the actual entity in genetic division, how do atomic entities connect and create the continuity? What is the inclusion and overlapping of atomic entities?

The pre-existence of extensive continuum is one solution. That is, extensive continuum exists, and then, each actual entity is individuated from the extensive continuum. Nobo's interpretation is the typical example. He insists the importance of solidarity and comes to assert "metaphysical extensive continuum". Although his interpretation is overwhelming, it misses the multiplicity in Whitehead's philosophy. Actual entities exist, and then, they constitute extensive continuum, and the reverse is not true.

In Whitehead's text, it is written clearly that extensive continuum "is not a fact prior to the world"(PR 66). Nobo insists that this extensive continuum is only the spatio-temporal continuum contingently characterizing our cosmic epoch. But he ignores the context of this text. In Whitehead's philosophy, there is no room for "metaphysical extensive continuum".

The point is the relation between regions and actual entities. Regions include and overlap other regions. On the other, actual entities can't include and overlap because of their atomicity. Christian solved this problem with "hypothetical regions". Hypothetical regions don't correspond to actual entities. Only among hypothetical regions, inclusions and overlappings exist. On the other, among actual entities, only external relations exist.

And what is "hypothetical region"? "Region" is the standpoint from which the concrescence of actual entity generates. By this definition, it is stupid that there are regions which can't correspond to actual entities. In coordinate division, actual entities in satisfaction are regarded as regions. In genetic division, occasions in regions are regarded as actual entities. In Whitehead's texts, "actual entity" is used generally.

However, if regions are identified with actual entities, how atomic entities include and overlap each other? The key is that the atomicity of actual entities is causal atomicity, and is not extensive atomicity. In genetic division, extension isn't discussed. It is discussed in coordinate division. And causal atomicity

is compatible with extensive inclusion and overlapping. For example, the occasion that it rains causes the occasion that roads wet. This occasion is causal future of that occasion. They are atomic and aren't causal inclusive or causal overlapping. But there is the occasion that it rains and roads wet. In this occasion, the occasion that it rains overlaps the occasion that roads wet. In genetic division, these two occasions are atomic. In coordinate division, these two occasions are overlapping.

In this way, while actual entities are causal atomic, they are extensive continuous. If actual entities would be extensive atomic, it might be natural that they should be only micro entities. But they are extensive continuous, so they can be also macro entities, while they can be micro entities.

Final Cause of Whitehead's *Process and Reality*

HIRATA Ichiro (Kansai Gaidai College, Japan)

t_hirata@hb.tpl.jp

The problem of final cause in Whitehead's philosophy concerns the individuation of actual entities, the freedom from God concerning initial aim, the difference among various entities, and etc. And when we discuss these problems, the compositional analysis of L.S. Ford must be taken into consideration. From Whitehead's existing texts, he discusses how Whitehead found subjective aim, that is, the transition from physical purpose to subjective aim. While his discussion is persuasive, we must consider the reason Whitehead left the former texts. And we must interpret the former texts from the last standpoint of Whitehead. For example, we must consider physical purposes in connection with subjective aim.

In Leclerc's interpretation, subjective aim is regarded as the principle of individuation of actual entity. But Nobo criticizes this interpretation because that subjective aim doesn't control the whole process. While Nobo's interpretation is subtle, Whitehead's text denies his interpretation (PR 224). Transition which Nobo considers free from subjective aim is controlled by initial aim, that is, the primordial phase of subjective aim from God. And the changes of phases in subjective aim lay the foundation of the freedom from God.

Concerning the phases of subjective aim, the discrimination between coordinate division and genetic division is important. As the principle of individuation, the subjective aim is discussed in coordinate division. It concerns the definition in category of explanation (PR 25). And the phrase "feeling a proposition with the subjective form of purpose to realize it" is important. Actual entity realizes the content of this proposition of the subjective aim, and this content individuates this actual entity.

On the other, the phases of subjective aim are discussed in genetic division. For example, the initial aim from God is the primordial phase. And physical purposes, propositional feelings and intellectual feelings are final phases.

As the final phases of subjective aim, these three feelings are important in the variety in actual entities. Physical purposes correspond to physical occasion, propositional feelings correspond to instinct behaviors, and intellectual feelings correspond to human experiences.

In physical purposes, there is no content which that subjective aim realizes. We find it in the subjective aim in coordinate division. So we can't find the purpose which that physical occasion realizes in that physical occasion. For physical purposes are the objects of physical science and everyday life. As the final phases, physical purposes rather affect the following occasions.

On the other, propositional feelings and intellectual feelings are composed of propositions. In a

propositional feeling, this proposition is equal to the proposition of the subjective aim in coordinate division. An instinct behavior realizes the purpose unconsciously.

When instinct behaviors become conscious by intellectual feelings, there are intentional actions. And intentional action is typical of the occasion caused by final cause. In intention the content of the proposition of subjective aim in coordinate division are equal to the content of intellectual feeling. Other than intentional action, for example, in perception, there is difference between the content of the subjective aim and of that intellectual feeling.

**Toward a sustainable global society—holistic transformation of civilization through
adventure of ideas and practices**

HIROSE Chuichiro (International Christian University, Japan)

hirosse.ch@gmail.com

Abstract:

I would like to focus my essay on two aspects applying the Whitehead's organic philosophy and his thoughts on civilization. The current crisis of environmental challenges roots in the very straightforward structure of human civilization. Our global human society encounters collectively this challenge for the first time in the history of mankind. This crisis of global sustainability has the characteristic of holistic incompatibility of contemporary systems of civilization with sustainability. We should go through an adventure of ideas and practices realizing resource and carbon constrained finite world.

Transformation of holistic civilization systems

Whitehead envisaged, in the first part of <Adventure> under Civilization (AI), a situation that the development of knowledge and technologies tended to alter things when entering a new era of civilization.

「A man can be civilized, and a whole society can be civilized; although the senses are somewhat different in the two cases.」 「New knowledge, and new technologies have altered the proportions of things.」 (AI.273)

Historical transitions of civilization used to re-establish a set of science & technology as a cultural counterpart. However, modern civilization has continually increased the density of GHG in earth's atmosphere since the industrial revolution. This effect has recently accelerated the global warming and climate changes. The current civilization supported by fossil fuel energy has ultimately faced with the irreversible point of no return both in terms of climate change and natural resources.

「The foundation of all understanding of human life —is that no static maintenance of perfection is possible. (AI.274)

We must collectively alter social systems of human lifestyle supported by such modern conception as freedom and equality, rule by law, democracy, national sovereignty and capitalism. The contemporary human lifestyle systems have become almost a pure conservatism as Whitehead envisaged.

‘These quick transitions to new types of civilization are only possible when thought has run ahead of realization.’ (AI.278)

We have to transform our civilization even thought runs after realization

Whitehead’s organic philosophy and his thoughts on civilization suggest a proceeding of “thoughts ahead of realization” when quickly altering types of civilization. Whitehead termed five qualities of civilization in society: truth, beauty, adventure, art, and peace. These five qualities advise a future direction of the quality of human life.

‘The great harmony is the harmony of enduring individualities, connected in the unity of a background. It is for this reason that the notion of freedom haunts the higher civilizations. For freedom, in any one of its many senses, is the claim for vigorous self-assertion.’ (AI.281)

The notion of freedom haunting for higher civilization is one of human civilizations. Freedom is necessarily to seek positively and openly the value of human civilization. This freedom differs from conventional “freedom and equality”, or “free market economy” that were established in western society. Whitehead described the process of human civilization as below.

‘We have seen that there can be no real halt of civilization in the indefinite repetition of a perfect ideal. Decay, Transition, Loss, Displacement belong to the essence of the Creative Advance. The new direction of aim is initiated by Spontaneity, an element of confusion. The enduring Societies with their rise, culmination, and decay, are devices to combine the necessities of Harmony and Freshness.’ (AI.286)

‘The concept of Civilization, as developed up to this stage, remains inherently incomplete.’ (AI.295)

The full paper tries to concretely analyze the holistic and simultaneous transformation of human systems in reference to Whitehead’s five qualities of civilization.

A. N. Whitehead and Business: What to learn from him

IHARA Seiji (Kyushu Sangyo University, Japan)

ihara0531@csf.ne.jp

The purpose of this paper is to clarify a concept of business to which the late A. N. Whitehead referred in his books. He pointed out in *ESSAYS IN SCIENCE AND PHILOSOPHY*, 1968 what the problems of modern salesmanship and production are in the great commercial corporations. He also figured out in his same book that it set itself to destroy individuality and such a decay of it lead to the gradual vanishing of aesthetic preferences as effective factors in social behaviours.

As A. N. Whitehead mentioned above, his philosophy of organism will be effective to reexamine the present business society and newly open to create a spirit of global society in the making.

Reason and the Other

Whitehead's Reason which adventures and Levinas's Skepticism as Revenant

IIMORI Motoaki (Chuo University, Japan)

actual.occasion@gmail.com

Is it possible to say something about the other? Indeed philosophers say something about the other. But then it may be no longer the other. Because the other said becomes familiar to reason. So the other must continue to escape from the speech of reason endlessly. Reason would be able to relate to the other only by chasing it.

This paper is aimed at describing such a situation between Alfred North Whitehead and Emmanuel Levinas: Whitehead who thoroughly thought about the systematization by reason, defining his methodology as “speculative philosophy”; and Levinas who thoroughly thought about the other, criticizing traditional philosophy (in particular, phenomenology of Husserl and of Heidegger) for totalizing. Considering these philosophers, I will describe the relation (or rather irrelevance) between the reason and the other.

1. Concrescence

(Whitehead's individualization)

Whitehead calls his metaphysics “philosophy of organism.” It is aimed at constructing the cosmology on the model of life. So what is meant by “life”? He says:

Life implies the absolute, individual self-enjoyment arising out of this process of appropriation. I have, in my recent writings, used the word *prehension* to express this process of appropriation. Also I have termed each individual act of immediate self-enjoyment an *occasion of experience*. (MT 150-1)

The activity which appropriates the other and enjoys it: this exactly is life. Whitehead comprehends experience on the model of such a mode of life, and calls it “actual occasion.” Through the appropriation of prehension, an actual occasion absorbs all past occasions which transcend it, and constructs itself from them.

The point is that this living process consists of the relation with the external. The datum of experience is not only the clear and distinct “sensus” such as color and sound. Such datum given to conscious experience is private and distinct, and thus does not show the relation between data nor between the experience in question and the things which transcend it.

For example, gaze at a patch of red. “How it originates, how it will vanish, whether indeed there was a past, and whether there will be a future, are not disclosed by its own nature” (AI 180). The sensum of red is distinctly and privately in the here-and-now experience, and does not show the relation with itself. So if we hold like Hume that the sole data in experience are *sensa* given to conscious experience, then we cannot avoid what Santayana calls the “Solipsism of the Present Moment” (S 33).

But Whitehead says that in the depth of experience there are elements different from *sensa*. Concretely speaking, such elements are these:

An inhibition of familiar *sensa* is very apt to leave us a prey to vague terrors respecting a circumambient world of causal operations. In the dark there are vague presences, doubtfully feared; in the silence, the irresistible causal efficacy of nature presses itself upon us; ...in the dim consciousness of half-sleep, the presentations of sense fade away, and we are left with the vague feeling of influences from vague things around us. (PR 176)

According to philosophers who regard *sensa* as the sole data in experience, an inhibition of *sensa* given to conscious experience should leave nothing in experience. But in fact there remain vague feelings of the inflow of the things which transcend the here-and-now experience. “[T]hose elements of our experience which stand out clearly and distinctly in our consciousness are not its basic facts; they are the derivative modifications which arise in the process” (PR 162). Vague feelings of the inflow of the other are the very basic elements in experience. And vivid *sensa* in consciousness derive from such feelings.

Whitehead says: “Philosophers have disdained the information about the universe obtained through their visceral feelings, and have concentrated on visual feelings” (PR 121). As far as the *sensus* such as the visual datum is regarded as the sole datum, there remains the “Solipsism of the Present Moment.” But the visual *sensus* is accompanied by the feeling of the eye, for example. Thus in the depth of experience more profound than visual data, there are the bodily feelings influent into the here-and-now experience, and, moreover, the feelings of the external world. “The present moment is constituted by the influx of *the other* into that self-identity which is the continued life of the immediate past within the immediacy of the present” (AI 181).

It was the activity receiving the other influent into the present moment that was called “prehension” above. Innumerable past occasions flow into the present occasion, and are received by its prehensions. Synthesizing these prehensions through the process of “concrecence,” an actual occasion

makes itself up into *the* occasion. Thus Whitehead says: “The concrescence is an individualization of the whole universe” (PR 165).

The individualization of concrescence: for the present we can say that it is the process in which the here-and-now experience constructs itself through the prehension and the appropriation of the other. This individualization is fostered by the other.

2. Enjoyment

(Levinas’s individualization)

Similarly to Whitehead, Levinas explains about individualization. In his *Totality and Infinity*, Part II ‘Interiority and Economy,’ he says:

Happiness is a principle of individuation, but individuation in itself is conceivable only from within, through interiority. (TI 157)

Happiness is concerned with “enjoyment” (*jouissance*). Happiness is to enjoy the pure quality without substance called “element,” and to be satisfied.

For example, “[w]e live through “good soup,” air, light, spectacles, work, ideas, sleep, etc.” (TI 112). The things through which we live are not the object of knowledge nor the means to an end; but we just enjoy them. The warmth of soup, the shine of light behind the clouds, the tired feeling throughout the body; we just enjoy such pure qualities.

Enjoyment is the world’s being presented to me as pure qualities. Then in the flat and uniform world, the I who enjoys it appears as the center. “Enjoyment is a withdrawal into oneself, an involution” (TI 123). The world is involved in the center of the I through my enjoyment. This involution is “the reversion, so to speak, of convexity into concavity” (TI 321-2). By it, the sphere which is not surveyable from the outside, the sphere of interiority, appears in the world. This is Levinas’s individualization.

But enjoyment is unstable, because the element is without substance. The pure element now enjoyed may disappear the next moment. Enjoyment is insecure about the future. Therefore the I passes from the unstable order of enjoyment into the stable one of “labor” (*travail*) and “possession.”

First, labor gives a form to the element of pure quality, and draws the things from there. Then they are possessed. “The hand both brings the elemental qualities to enjoyment, and takes and keeps them for future enjoyment” (TI 173). The I can enjoy the things taken by labor and possession anytime. Thus enjoyment acquires stability.

Levinas says that such activity of labor and possession is based on the “home” (*maison*, TI 168). The home is not the object of possession; but the things by which it is possible to possess. It is by the

foundation of the home that the I can keep and possess the things drawn. Levinas calls the enlargement of interiority through possession based on the home “economy”, in the etymological sense: the Greek word *οικονομία* means the home. It is the enlargement of interiority through economy that is described in *Totality and Infinity*, Part II ‘Interiority and Economy,’

Such enlargement of interiority finally absorbs everything. Levinas says:

Everything is here, everything belongs to me.... The possibility of possessing, that is, of suspending the very alterity of what is only at first other, and other relative to me, is the *way* of the same. (TI 27)

The I enjoys the world presented to me as pure quality. The world fosters the individualization of the I. It is indeed the other for the I.

But now the I has passed from the unstable order of enjoyment into the stable one of possession based on the home. The world has become with form. In the world, there is nothing to exceed the comprehension of the I. If there was something incomprehensible, the I would not be able to possess it. But there is nothing incomprehensible. Everything in the world has form and is comprehensible. Therefore it is presented to the I as something capable of possession.

Although the I actually does not possess the stars, the first step of possession is taken as far as the I comprehends them as “stars.” The “sway” (*pouvoir*) of the I has already penetrated everywhere. Levinas calls such a mode of the I “imperialism of the same” (TI 28). There can be nothing outside of this empire. Everything is continuous within it, and so there is not the other. All is inevitably involved in possession or “appropriation” (TI 37) of the I. Whatever the I meets, it never escapes from its appropriation. After all, it is presented to the enjoyment of the I, and exists for it.

The individualization of enjoyment: it is indeed concerned with the world as element, with the other. But it is comprehensible and capable of possession. It is penetrated by the sway of the I, and absorbed by “imperialism of the same.” Levinas attempts to find the other beyond such individualization.

3. System and Totality

Two individualizations have been considered so far: concrescence (Whitehead) and enjoyment (Levinas). They are concerned with the other fostering them. But according to Levinas, the individualization through enjoyment absorbs the other, and so there is no longer the other. This is true of Whitehead's individualization too.

After all, the other fostering the individualization is for the individual: and it is no longer the other, but the individual itself. The individual absorbs the difference between itself and the other fostering itself. Then such difference is eliminated. Without finding another difference, we can never speak about the other.

But the universe described by Whitehead is continuous. Everything is continuous with *the* individual, and there is no external for this continuum. *The* individual and the other are both situated in this continuum. Indeed everything is actually not appropriated by *the* individual; but in Whitehead's universe where everything is continuous with *the* individual and there is no heterogeneous thing, all would inevitably be comprehensible to *the* individual and capable of being appropriated by it. After all, the continuum described by Whitehead would absorb that difference between *the* individual and the other which escapes from the individualization. And so there would be no longer the other.

Such a strong continuity of the universe described by Whitehead is intimately connected with his methodology. In his *Process and Reality*, Part I, Chapter I, Whitehead explains the methodology of the philosophy of organism, supporting "speculative philosophy." According to him, it is the endeavor to frame the general system of ideas. The system must be "coherent" in the sense that ideas presuppose each other, and "logical" in the sense of being without contradiction. Also it must be "applicable" to experience, and "adequate" in the sense that everything is capable of being interpreted by it. Thus speculative philosophy is to absorb everything into its coherent system through the interpretation.

About the coherence of the philosophy of organism, Whitehead says:

The coherence, which the system [of the philosophy of organism] seeks to preserve, is the discovery that the process, or concrescence, of any one actual entity [syn. with "actual occasion"] involves the other actual entities among its components. In this way the obvious solidarity of the world receives its explanation(PR 7).

This passage is concerned with the "principle of relativity" (PR 22). A here-and-now occasion terminates its process of concrescence, and then gets thrown into the process of concrescence of the succeeding occasion. In other words, past occasions which terminate their process are involved in the here-and-now occasion. This is the solidarity of the universe, or the relativity described by the philosophy of organism.

If the terms in the universe broke with each other and there was no solidarity, entirely

heterogeneous principles would be applied to them. Such a universe would involve heterogeneous principles, and be incoherent. Therefore, for the system to be coherent, the universe described by it needs to be continuous showing solidarity. The strong continuity of the universe described by the philosophy of organism is due to the coherence required by its methodology.

Thus in the philosophy of organism, strong continuity derived from the coherence of system absorbs the difference between the individual and the other. And furthermore, everything being defined as actual entity, such difference is absorbed in advance. About actual entity, Whitehead says:

‘Actual entities’—also termed ‘actual occasions’—are the final real things of which the world is made up. There is no going behind actual entities to find anything more real. They differ among themselves.... But, though there are gradations of importance, and diversities of function, yet in the principles which actuality exemplifies all are on the same level. The final facts are, all alike, actual entities.... (PR18)

In the philosophy of organism, everything is on the same level in the sense of being an actual entity which embodies the most general activity of “creativity.” In other words, the difference between an individual and the other is absorbed into the general activity of creativity in advance, the philosophy of organism making both them come on the scene as “actual entities”. Thus in the system everything is “actual entity” on the same level: this is the “ontological principle.”

In the philosophy of organism, the difference between the individual and the other is absorbed by two principles: the principle of relativity and the ontological principle. The ontological principle defines all alike as actual entities, and the principle of relativity secures them solidarity. Thus all are situated in the continuous and general system without the external.

Whitehead says: “The task of philosophy is to recover the totality obscured by the selection” (PR 15). In conscious experience, the private elements of *sensa* are emphasized, and so the fact that all in the universe are concerned with the individualization is obscured. It is the aim of his philosophy to situate all in the general system and to recover the totality.

But such an attitude is just a problem to Levinas. About the totality, he says:

If this bond between me and the other could be entirely apprehended from the outside it would suppress, under the gaze that encompassed it, the very multiplicity bound with this bond. The individuals would appear as participants in the totality: the Other would amount to a second copy of the I — both included in the same concept. (TI 126)

Surveyed from the outside and situated in the totality founded on the common plane of being, the difference between the I and the other is absorbed. Then all alike are beings, and there is no finding the

other anywhere.

Also as the synonym with totality, Levinas says about system:

Reason consists in ensuring the coexistence of these terms, the coherence of the one and the other despite their difference, in the unity of a theme; it ensures the agreement of the different terms without breaking up the present in which the theme is held. This coexistence or accord between different terms in the unity of a theme is called a system.... (AA 256-7)

Systematization by reason absorbs the differences of the terms into the unity of things said. Such terms become homogeneous in the sense of their coexistence in the discourse. The difference itself with the other is inevitably “exception” (AA 18) to the system or totality. Levinas says so.

But can his own saying stand up? Doesn’t an exception said by him become an example of any system? After all, isn’t the difference with the other left absorbed?

4. Revenant and Adventure

(Beyond Individualization and System)

To summarize: the other fostering the individualization of the I is for it; and it becomes the I itself, appropriated by the I actually. So it is already not the other. And furthermore, even a thing escaping from the appropriation of the I is not the other, if it is capable of the same systematic explanation together with the I. To begin with, in virtue of the continuous foundation described by the systematic and totalizing explanation, the I can actually appropriate the other situated in such a systematic world.

Thus the other itself never becomes the I through its appropriation, nor “us” together with the I through the totalizing explanation. According to Levinas, the bond with such an other becomes an exception to the system inevitably.

But can he say so? Doesn’t it become an example of another system, said by him? This is the question presented in the last section.

Levinas calls the time of the system which philosophy describes in a panoramic fashion, “synchrony.” All are recovered there through a recollection or representation, as things which were once present, or as past presents. Surveyed by philosophy, terms in the system become contemporaries for its eyes, and get to share a common (syn-) time (-chrony). This is synchrony.

That difference with the other which is an exception to the system resists synchrony. Levinas calls such a mode of time “diachrony.” The I is called by the unique “you”; so it responds to you, and says something to you. This “Saying” (Dire), which is the difference with the other, is older than anything in the system, and precedes even the origin situated there. So it is “past more ancient than every

representable origin" (AA 23), and "pre-original and anarchic *past*" (AA 23). Before the I and the other become "us" in the system, and before the other becomes the I through the appropriation, the I has said to the other in the "past which was never present" (AA 45). The difference between the I and the other has a distant (dia-) mode of time (-chrony) from the surveying eyes. This is diachrony.

Philosophy synchronizes every difference, situates it on the same level, and absorbs it into the systematic "Said" (Dit). Against such philosophy, Levinas parallels it with "skepticism" to find the diachronic difference incapable of synchronizing.

Skepticism objects against the systematic truth of philosophy. And it says that there is the Saying which is the difference between the I and the other, the exception to the system. But philosophy can always refute it: As soon as skepticism says that there is the Saying, it becomes the Said, doesn't it? An exception becomes an example, doesn't it? Refuting skepticism like this, philosophy can recover even a thing which cannot be recovered.

And so, after all, does it follow that philosophy sweeps to victory? It would seem that the difference with the other was glimpsed; but is it absorbed into the system? Levinas says no.

Philosophy is not separable from skepticism, which follows it like a shadow it drives off by refuting it again at once on its footsteps.... Skepticism is refutable, but also the revenant. (AA 260-1)

As soon as philosophy refutes and buries skepticism, it comes back again like a revenant. Whenever skepticism is refuted, it comes back. As soon as philosophy refutes skepticism and absorbs everything into its own system, the skeptical thinking that there may be that difference between the I and the other which is incapable of systematization comes back again. Thus haunted by the revenant of skepticism, philosophy has changed from the reason satisfied to totalize and systematize into "pre-original reason" (AA 259).

Levinas uses the expression "difference with respect to the other as non-indifference" (AA 97). It means the impossibility of indifference to difference with the other. It is just the mode of philosophy which has changed into pre-original reason. Such reason is unable to show indifference toward difference with the other.

Now in Levinas, haunted by the revenant of skepticism, philosophy gets to turn toward that difference with the other which escapes from the system. Whitehead who aims to systematize, and Levinas who remains sensitive to the difference with the other beyond the system; does it follow that there is merely such a simple comparison?

No. In the first place, the speculative philosophy as Whitehead's methodology is the 'endeavor' to frame the general system of ideas. In other words, it is the endeavor which never completes, and all is not absorbed into his system. He says: "In its turn every philosophy will suffer a deposition" (PR 7). Every system of philosophy will be included in the more general system and deposed by it. Whitehead's

system will be inevitably involved in such a movement too. It is for this reason that *process and reality* is subtitled *An Essay in Cosmology*. Speculative philosophy can approach the general system only by an asymptotical form (PR 4), and it is always ‘an essay.’

Whitehead says:

Rationalism never shakes off its status of an experimental adventure. The combined influences of mathematics and religion, which have so greatly contributed to the rise of philosophy, have also had the unfortunate effect of yoking it with static dogmatism. Rationalism is an adventure in the clarification of thought, progressive and never final. (PR 9)

Speculative philosophy is not satisfied by establishing the principle as a self-evident presupposition and by framing the system from there deductively like mathematics. Otherwise, it would become dogmatism. But speculative philosophy is the movement to find more general principles and to frame new systems. In this sense, it is an adventure. An adventure which is not settled in a deductive system, but seeks for a more general system, facing the thing escaping from the systematization: this is just the reason which speculative philosophy retains, or “speculative Reason” (FR 38). It is “the flight of an aeroplane” (PR 5) flying higher to find wider generality, and also “a voyage” (PR 10) across the horizon to such generality.

Such adventure of speculative reason never ends. It aims at ‘framing’ the system. But as long as it is an adventure, it is never settled in any system and continues to face the other escaping from such a system. It is here that we can find the difference with the other which is unlike from any difference within the system described by Whitehead.

Thus we have reached reason facing the other escaping from the system: pre-original reason haunted by the revenant (Levinas), and the speculative reason which adventures (Whitehead). Both revenant and adventure are concerned with a Latin verb ‘venire,’ or coming. It is the revenant which comes (-venant) back again (re-) to the systematizing philosophy. And adventure means that the incomprehensible danger comes (-venture) to (ad-) the safe place of dogmatic system. There may be the difference with the other beyond individualization and system. Both the pre-original reason and the speculative reason continue to face such a possibility.

Abbreviations

Alfred North Whitehead:

- AI *Adventures of Ideas*, New York: Free Press, 1967.
- FR *The Function of Reason*, Boston: Beacon Press, 1958.
- MT *Modes of thought*, New York: Free Press, 1968.

IIMORI Motoaki

PR *Process and Reality*, New York: Free Press, 1978.

S *Symbolism*, New York: Fordham University Press, 1985.

Emmanuel Levinas:

AA *Autrement qu'être ou Au-delà de l'essence*, Paris: LGF - Livre de Poche, 1990.

TI *Totalité et infini: essai sur l'extériorité*, Paris: LGF - Livre de Poche, 1990.

**Process Cosmology, Transtemporal Identity and Eco-Ethics:
Eco-Philosophy and Inheritance as Moral Grounds**

Ivan Brian L. INDUCTIVO (Cavite State University, Philippines)

ivaninductivo@yahoo.com

Deep ecology, both in its Western and Green Buddhism variants, had focused their advocacy of biospheric equality and eco-centrism in the justification of the intrinsic value of nature in general. The demand for a moral standing lies in the recognition of the intrinsic value of nature and interconnectedness of experient occasions in a panpsychist view. This paper examines the promotion of eco-ethics through the environmental ethics of Whitehead's axiological cosmology and ascertains how an "*inheritance*" concept of personal identity fortifies the moral responsibility of individuals in the promotion of life. Through Steve Odin's paper on *Whitehead's Eco-Philosophy of Nature and Japanese Shizengaku* and Tokiyuki Nobuhara's rejoinder examining the inclusiveness of the hierarchical order of ecology in the horizontal sphere, the necessity of interconnectedness of occasions, environmental ethics, sustainability and axiological hierarchy of nature have been succinctly expounded. As Aldo Leopold's *Land Ethic, 1949* says: "All ethics rest upon a single premise: that the individual is a member of a community of interdependent parts". Accordingly, the justification of Charles Hartshorne's partial identity as personal identity through the novel concept of *inheritance* will pave the avenue for moral grounding of altruism and eco-ethics. The recognition of the *insistence* of others (nature) in the prehension of the self entails ecological responsibility. If humans *identify* with nature, then taking care of the natural world will become part of taking care of one's self. Hence, it is still in accordance with the tenets of deep ecology and Whitehead's urge for the promotion of the art of life, i.e., *to live, to live well and to live better*.

The Environment Regarded as Symbolic Space: Expanding upon Whitehead's Symbolic Reference

ISHIDA Masato (University of Hawai'i at Mānoa, U.S.A.)

masatoi@hawaii.edu

1. Introduction

Although symbolism is most commonly considered in terms of cultural and conventional symbols that are characteristic of human experience, such familiar instances, including those involving language, are regarded by Whitehead as mere examples of symbolism governed by more general principles. In Whitehead's view, a perceptual object as simple as a colored shape can function as a *symbol* for both humans and animals in so far as they are referred to something not directly perceived in the salient foreground perception. The shape *per se* is not a symbol, but if a datum is felt in the perceptive modes of causal efficacy and presentational immediacy, and these two modes are unified, there is, Whitehead argues, *symbolic reference*.

Living organisms transact with their environment through multiple communication channels, many of which are predominantly physical. Symbolic reference may enter the experience of higher organisms as the two aforementioned modes of perception are unified, but due to the absence of definite percepts in the mode of presentational immediacy, Whitehead sometimes hints that symbolism receives little or no significance in lower forms of life. However, Whitehead also suggests that the fundamental or more general requisite for symbolism is simply the integration of two distinct modes of perception with some common ground, such that symbolic reference may not require one of its perceptive modes to be specifically the mode of presentational immediacy.

The present paper expands upon this latter general framework of symbolic reference and aims at generalizing symbolism to lower organisms, whereby a solid continuity between lower and higher organisms is established. In simplest terms, a symbol can be seen as a perceptum that affords information of what is prehended in more aboriginal modes of perception, or vice versa. On this interpretation, the functional territory of symbolism is not only broad but spans the entire biosphere, including the world of plants. I will argue in particular that the perception of enduring objects in surrounding space is sufficient to evoke primitive symbolism, which makes the environment a natural symbolic space for most creatures.

2. Blind Symbolic Reference

Ordinary human perception offers a paradigmatic example of symbolic reference where the two perceptive

modes, causal efficacy and presentational immediacy, are brought into synthesis. The causal thrust of the dimly felt background of experience, or what Whitehead calls “the efficacy of the environment” (S 52), induces feelings that further structure themselves and become unified under a projected region that is more immediately felt. This makes symbolic reference a mode of derivative perception that supplements the concrescence of the percipient occasion. As a result, a coloured object, a grey stone for example, appears in concrete embodied space:

The two modes are unified by a blind symbolic reference by which supplemental feelings derived from the intensive, but vague, mode of efficacy are precipitated upon the distinct regions illustrated in the mode of immediacy. The integration of the two modes in supplemental feeling makes what would have been vague to be distinct, and what would have been shallow to be intense. This is the perception of the grey stone, in the mixed mode of symbolic reference. (PR 180)

Given the fact that symbolic reference unifies causal efficacy and presentational immediacy, it is natural to locate its function in the supplemental phase of concrescence. Of the two modes, causal efficacy generally precedes presentational immediacy, since the latter is “an outgrowth from the complex datum implanted by causal efficacy” (PR 172). However, it is to be borne in mind that presentational immediacy itself is “a physical feeling” (PR 311), a “physical fact which may, or may not, enter into consciousness” (S 16). The two modes of perception have nothing essential to do with consciousness, for which reason symbolic reference becomes a largely pre-cognitive function that is “blind” (PR 180). Regarding its physical nature and pertinence to life phenomena, Kraus suggestively remarks:

Blind transference—symbolically conditioned action—characterizes all vertebrates, certainly the more complex invertebrates, and perhaps all life forms as well. The tendency to take the present as a symbol of a past agency which can lead to the future weal or woe of the organism appears to be one of the indicators of the presence of life. (ME 86).

How far can we push this analogy, or in what sense would all life forms incorporate a degree of symbolism? In contrast to human beings, whose “elaborate system of symbolic transference” has made it possible to “achieve miracles of sensitiveness to a distant environment, and to a problematic future” (S 87), invertebrates and other simple organisms seem to perceive their environment in highly specialized ways and only for the proximate future. But it is also true that most creatures exhibit varying measures of sensitiveness to their environment and future, or otherwise they will fail to survive.

Plants do not form a different category. The Venus flytrap snaps its prey in a fraction of a moment when distinct hairs on the inner side of the leaf are contacted twice within twenty seconds. There are plants that release Herbivore-Induced Synomone as an active signal to attract carnivorous mites so as to

defend themselves from herbivorous mites. In general, selective information, which is more than what dim causal efficacy discloses, is transmitted throughout the natural environment, such that some form of symbolism may be postulated in nature. This is in fact one of the interesting directions in which Whitehead develops his theory of symbolic reference.

3. Enduring Objects, Strains, and Symbols

When a dragonfly avoids an obstacle in rapid flight, or a bat navigates its areal path in a dark cave, there is not much need for clear and distinct qualitative perception as the sense of direction and the awareness of the spatial structure of the given environment. A moment ago, it was noted that presentational immediacy is a physical fact that does not presuppose consciousness. To be more precise, however, it even arises within the historical routes of enduring objects that are normally considered inorganic. In Whitehead's own words:

The two modes [causal efficacy and presentational immediacy] express the same datum under different proportions of relevance. [. . .] There is first the complex genetic process in which presentational immediacy originates. This process extends downwards even to occasions which belong to the historic routes of certain types of inorganic enduring objects, namely, to those enduring objects whose aggregates form the subject-matter of the science of Newtonian dynamics. (*PR* 173)

Besides observing how the philosophy of organism gestures toward a form of gradualism with the phrase "different proportions of relevance," it is important to stress that the process generating presentational immediacy is to be traced back to occasions constituting inorganic enduring objects. Sizable instances of such enduring objects include rigid bodies in Newtonian mechanics, but all types of objects are concerned ranging widely in dimension and structure.

A dragonfly, to use our example, will identify its geographical position relative to large-scale objects such as trees, rock edges, or the flat surface of open water. The effect of strain feelings integrated with the primitive causal feelings allows the insect to locate itself in the concrete space, and not much beyond strain feelings and automated responses to them seems necessary for effective aviation. The occasions contributing to the perception of strain may be seen as symbolizing certain features of the environment that are significant for the purpose of flight.

Now strain feelings, which determine the "complex distribution of geometrical significance" (*PR* 309) of the environment, are apparently more developed than primary physical feelings; they are concerned with the relatively stable or invariant features of the physical environment; and they presuppose neither consciousness nor life. Although strain feelings are often associated with sensory motors of higher organisms, most enduring physical objects exemplify such feelings, that is, in a way comparative to

presentational immediacy originating in the deep historic routes of enduring objects. A rigid body not only subsists but maintains its physical structure by internalizing strains into its concrescence. Whitehead advances this point as follows noting that the actual entities involved are already high-grade:

It is obvious that important feelings of strain involve complex processes of concrescence. They are accordingly only to be found in comparatively high-grade actual entities. They do not in any respect necessarily involve consciousness, or even that approach to consciousness which we associate with life. But we shall find that the behaviour of enduring physical objects is only explicable by reference to the peculiarities of their strains. (PR 311)

The contrast between blind causal efficacy and strain feelings is obvious. The former enjoys very little valuation and articulation, whereas the latter, strains, shall reflect particular geometrical relations realized in the nexus constituting the actual world of the emerging actual entity. As long as the primary physical feelings are unified with strain feelings, as should be the case with the dragonfly, my point is that the latter feelings may symbolize the former by informing the aviator of the relatively stable features of the space it travels through.

Since the lowest kind of organism identifies and responds to enduring features of its immediate surroundings, including obstacles, enemies, food, mate, and a lot more, it seems not wrong to attribute some measure of symbolic coordination to their behavior. One such coordination may be found in the bodily efficacy of the dragonfly and its strain feelings, where numerous geometrical features of space can be seen as symbols of its concrete environment, but most organisms likewise depend on enduring features of the world that count as invariants, or what can be termed 'symbols.' This agrees with Whitehead's view that "in the long course of adaptation of living organisms to their environment, nature taught their [symbols'] use" (S 7).

4. Whitehead's General Formulation of Symbolism

As is well-known, Whitehead on the other hand remarks that a creature like a jellyfish "exhibits some perception of causal relationship with the world beyond itself" (PR 176), such that "dim, slow feelings of causal nexus" (PR 177) can be attributed to it. However, he also adds, "we have no reason for any ascription of the definite percepts in the mode of presentational immediacy" (*ibid.*). For two main reasons, this should not be taken too hastily to mean that there cannot be *any* symbolic reference in the life processes of the jellyfish.

First, presentational immediacy is a matter of degree, and simple invertebrates may have indefinite percepts in the mode of presentational immediacy if not definite percepts. It is worth noting that presentational immediacy, the perception of the actual contemporary world, and definite percepts are logically independent notions. Nor does symbolism rest upon the definiteness of percepts. Words are, for instance, usually more definite for humans than other sensory objects, but Whitehead suggests that in

certain situations aesthetic experience, such as the smelling of incense, may “make better symbols than do words, written or spoken” (PR 183).

Secondly, and more importantly, symbolic reference between causal efficacy and presentational immediacy merely “affords the main example of the principles which govern all symbolism” (PR 180). The more general requisites for symbolism are: “that there be two species of percepta; and that a perceptum of one species has some ‘ground’ in common with a perceptum of another species, so that a correlation between the pair of percepta is established” (PR 180). Whitehead further elucidates upon this general formulation as follows:

The species from which the symbolic reference starts is called the ‘species of symbols,’ and the species with which it ends is called the ‘species of meanings.’ In this way there can be symbolic reference between two species *in the same perceptive mode*: but the chief example of symbolism, upon which is based a great portion of the lives of all high-grade animals, is that between the two perceptive modes [i.e. causal efficacy and presentational immediacy]. (PR 180, my italics)

The statement brings forward the bold idea that within *each* of the two perceptive modes of causal efficacy and presentational immediacy, there is nothing that forbids the formation of percepta falling under distinct species. In other words, so far as the two perceptive modes furnish the percipient occasion with distinct species of percepta, such that symbolic reference occurs from one perceptum to another, a similar synthetic process may take place within a lower-level perceptive mode including causal efficacy. Given the complexity of the integration of initial physical feelings, and the fact that presentational immediacy already *involves* strain (PR xxix), it makes sense to consider symbolism as being nested within and across multiple phases and modes of primitive unification.

As a contextual matter, I think symbolism in human experience is often highlighted in Whitehead’s own discussion. For example, “Language almost exclusively refers to presentational immediacy as interpreted by symbolic reference” (PR 173). Angled this way, organisms without robust presentational immediacy may seem to have very limited symbolic capacity. But this is certainly different from saying that their life processes are devoid of all forms of symbolism, nor is such an interpretation consonant with the general account given by Whitehead above. Taking symbolism in the exclusively human sense and denying it of lower organisms altogether would invite the mistake of drawing too sharp a border between simple and complex organisms.

5. Concluding Remarks

By expanding upon the most general formulation of symbolic reference, therefore, there is a sense in which a solid continuity between lower and higher organisms is granted in Whitehead’s own words. Following

this line of interpretation, a symbol is simply a perceptum that affords selective information about what is prehended in more aboriginal modes of perception, or vice versa. Being a “primitive form of synthetic activity” (S 21), the functional territory of symbolism is broad enough to span the entire biosphere. In particular, I have argued in this paper that enduring spatial features may suffice to render the environment a natural symbolic space for most creatures. The great subtlety and intricacy of “the twilight zone between pure physical feeling and the clear consciousness” (PR 263) seem to allow for such a flexible generalization of the theory.

The merit of such a general framework is multifold. “We are naive in our interpretation of language and of symbolism” (MT 92), Whitehead remarks, for whom verbal language is but one form of ‘language.’ Conscious cognition in human experience is not taken as the only model of knowledge acquisition and belief formation but one that serves as a main example in our epistemic discourse. Besides, symbolic reference constitutes developing grounds for higher intellectual feelings including propositional feelings. Seen in this light the great majority of symbolic structures are proto-propositional, such that under the theoretical scope of symbolism may fall the study of symbolic truth, not restricted to clear-cut bivalent truth, as exemplified in “Music, ceremonial clothing, ceremonial smells, and ceremonial rhythmic visual appearances” (AI 249). In the long run the “symbolic examination of pattern,” which is the subject of symbolic logic in whitehead’s view, may “become the foundation of aesthetics” (ESP 130-131).

Finally, I may proceed to yet another quote from Whitehead’s little book on symbolism: “Now the love of the sheer geographical aspects of one’s country, of its hills, its mountains, and its plains, of its trees, its flowers, its birds, and its whole nature-life, is no small element in that binding force which makes a nation”(S 68). A terrifying natural disaster will not be an exception. There is often a painful, almost insurmountable conflict between immediate emotions of loss and mourning, on the one hand, and the sheer geographical landscapes facing us after nature strikes, on the other. Despite her indifferent powers and actions, however, I am inclined to conclude that all has come to form, and *should* come to form, “the very texture of human life” (S 61-62). The abiding significance of Whitehead’s theory of symbolism in my view consists in its high degree of generality and its unifying perspective that recasts the question concerning man and the organic environment.

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A. N. Whitehead and Ervin Laszlo: A New Global Philosophy of Systems

ITOW Shigeyuki (Kyushu Sangyo University, Japan)

itow@ip.kyusan-u.ac.jp

Introduction: The late Alfred North Whitehead(1868-1947)and Ervin Laszlo(1932-)are intellectual giants to search for truth(1).The former gave us both a sharp or complicated speculation and a strong motivation to open to a new global philosophy in our civilization; the latter, learned a lot from him, created a new Philosophy of Systems, or Systems Philosophy, succeeding to General System Theory of the late Ludwig Von Bertalanffy(2) in the 1970's, and challenging to go beyond Whitehead's philosophy of Organism(3). His systems philosophy played a role to integrate localized sub-systems and globalized upper systems as a whole. He mentioned that this kind concept of systems is in a neo-Whiteheadian stage of transformation(4). Examining many books of him, the present author can conclude that he belongs to Whiteheadian, and tries to newly construct more sophisticated philosophy and metaphysics just like his Systems Philosophy and his metaphysics of Akashic Field(5). Dr. Ervin Laszlo is now a global leader to do strong efforts to shift our obsolescent world and its view(6).

1. Actual Entities and Natural Systems: Key Concepts

The late Alfred North Whitehead in his *Process and Reality* referred to refuse "no 'mere' togetherness of abstraction." In his endeavour, he discovered that the most important things in philosophical thought are based upon the concrete elements in our experience. He mentioned that they are: actual entities, prehension, and nexus(7). Ervin Laszlo in his *Introduction To Systems Philosophy* depicted such a new model of "Natural Systems as wholeness and order, System-Cybernetics I as adaptive self-stabilization & II as adaptive self-organization, and Holon-Property" as intra- and inter-systemic hierarchies(8).

(1)ACTUAL ENTITIES(Whitehead)/NATURAL SYSTEMS(Laszlo)

ACTUAL ENTITIES: According to Whitehead, the final real things of which the world is ontologically made up are: actual entities. They are real things and differ among themselves, and such actual entities are God, he mentioned. Also he referred that the final facts are, all alike, actual entities; and these actual entities are drops of experience, complex, and interdependence(9).Whitehead's terms of actual entities or actual occasions are a organism that grows, matures, and perishes(10).

NATURAL SYSTEMS: Whitehead's actual entities can be permissible to transform into more scientific and philosophical term of today: systems. Laszlo tries to replace his actual entities of organism into the new term of systems. His transformation of systems goes more precisely into "natural systems" as systemic state property of wholeness and order⁽¹¹⁾. The latter is an assemblage or combination of real things, parts, or correlated elements forming a complex and integrated whole in the changing process of natural systems. Systems are always plural and make a network of systems, not one single system that can not be survive in a real world. It can not alive as isolated with no energy and no information. A system is alive with another system in energy and information exchange process; therefore, such a system as open one interdepends another system, which in turn interdepends or (re)produces other systems. Thus Laszlo says that the real things are systems in the world. Such systems differ among themselves, and different systems produce different systems just like many things in experience, diversity, complexity, and integrated whole⁽¹²⁾. In my understanding of them except systematic system, any systems are complementary, not dichotomized in spirit and matter like dualism.

(2)PREHENSION(Whitehead)/SYSTEM-CYBERNETICS I & II(Laszlo)

PREHENSION: Whitehead argued that, with the purpose of obtaining a one-substance cosmology, 'prehensions' are a generalization from Descartes' mental 'cogitation,' and from Locke's 'ideas,' to express the most concrete mode of analysis applicable to every grade of individual actuality. He also explained that a prehension reproduces in itself the general characteristics of an actual entity: it is referent to an external world, and in this sense will be said to have a 'vector character;' it involves emotion and purpose, and valuation, and causation. In fact, any characteristic of an actual entity is reproduced in a prehension. It might have been a complete actuality; but, by reason of a certain incomplete partiality, a prehension is only a subordinate element in an actual entity. A reference to the complete actuality is required to give the reason why such a prehension is what it is in respect to its subjective form. This subjective form is determined by the subjective aim at further integration, so as to obtain the 'satisfaction' of the completed subject. In other words, final causation and atom are interconnected philosophical principles⁽¹³⁾.

Prehension has two aspects: negative and positive. The former consists of "exclusion from contribution to the concrescence; "the later consists of "feelings." The feelings contributed to the concrescence consist of three phases: conformal, conceptual, and comparative. The last one is divided into simple and complex comparative feelings.

SYSTEM-CYBERNETICS I & II: Whitehead's prehension shown as the sensational feeling interdependence between the subject- object relation can more scientifically be translated into Laszlo's

System-Cybernetics I as adaptive self-stabilization & II as adaptive self-organization in Cybernetics. Every system is always composed of smaller or larger, or internal or external systems in different levels of new integrating processes. In this sense, systems have always interfaces with inner or outer world, or subject systems and objective systems, as Whitehead's prehension is referent to the external world. Any systems, internal or external are prehended in a manner of input-output relation with feedback loops in Cybernetics. That which systems are in input-output relation with them means that any systems input and output a kind of energy or information with feedback loops. This is a characteristic of open systems, not closed or isolated. Thus open systems can be defined as real systems embedded in a feedback process inputting and outputting any free energy and information. This kind of systems is called "living." Therefore, any living systems are open. If any physical, biological, and social systems in our world are open, then we can define that they are "living systems." In general, physical systems process a larger volume of energy and a smaller one of information; biological systems process a full of energy and information more than physical ones; and social systems process a relatively smaller energy and a relatively larger information in due ones, and process much larger volume of information than physical and biological ones⁽¹⁴⁾.

Next, let us consider that any living systems as open ones input and output a kind of energy and information. That one system inputs energy and information outputting the other system, inputting another outputted energy and information shows systems relatedness in a real world. Such systems relatedness can be described as input-output relation and also connected with feedback loops in each different level of systems. By new changing or changed relations, any systems make different systems like physical, biological, and social ones; changes of relationship make diversity of systems. Such changes are concerned with systems subjectivity which can analyze into functions of perceiving, monitoring, choosing, feeling, loving, memorizing, evaluating, judging, learning, creating, imaging, mapping, projecting, and so on. Systems objectivity emerges from new results of such functions. Systems subjectivity and objectivity create a new world of environment containing a lot of data each system inputs and outputs. All these kinds of systems are a self-pattern of "living" in input-output relation. Such systems as adaptive self-stabilization and adaptive self-organization are living and open in that they consist of body (processing energy) and mind (processing information). These sorts of living and open systems evolved a complex and diversified society⁽¹⁵⁾.

(3)NEXUS(Whitehead)/INTRA- AND INTER-SYSTEMIC HIERARCHIES(Laszlo)

NEXUS(NEXUS): Whitehead argued as follows: actual entities involve each other by reason of their prehensions of each other. There are thus real individual facts of the togetherness of actual entities,

which are real, individual, and particular, in the same sense in which actual entities and the prehensions are real, individual, and particular. Any such particular fact of togetherness among actual entities is called a'nexus'(plural form is written 'nexus')(16). The ultimate facts of immediate actual experience are actual entities, prehensions, and nexus. Whereas subjective forms are private matters of fact, nexus is public matters of fact calling society or societies. Society and societies enjoy social order. They change from subject to object, and from object to superject in a dynamic process. Such dynamic process, putting into Laszlo's intra- and inter- systemic hierarchies, can emerge a new nexus in the different levels.

INTRA- AND INTER-SYSTEMIC HIERARCHIES: Such hierarchies are shown as Arthur Koestler's Holon Property(17). What Holon is interests to us for understanding what whole or part is mathematically or philosophically. Laszlo argued that, given systems which constitute ordered wholes, adaptively stabilizing themselves in their environment around existing steady-states as well as evolving themselves to more adapted, and normally more negentropic(or informed) states, development will be in the direction of increasing hierarchical structuration(18). As to Koestler's holon property, Laszlo translated itself into intra- and inter-systemic hierarchies, constructed and emerged as a result of "self-stabilizing and self-organizing ordered wholes in common environments.(19)"

The idea of intra- and inter-systemic hierarchies are may derive from Chinese one in history(20). The paper craft in China exhibits a structure of Chinese boxes. The craft is composed of many boxes, small or large, and of large boxes inside a lot of small boxes. So it is defined that Chinese boxes structure within boxes within boxes within boxes, which you can see as their application in computer operation when you do click. Any such structures of Chinese boxes can be shown as systems structures that are full of systems within systems within systems just like Chinese boxes in the paper craft in China. In this form, systems such as living as subject throughout processes of energy and information prehend or interdepend smaller living systems prehend, and smaller living systems as object act against a new prehension of larger and more stable order of living systems. If the new prehension can achieve by matching, then new order of living systems emerge there as superject. The superject never can reduce to the former object or subject because it could shape up a new wholeness in a new dimension. In this way, any living systems change, evolve, reform, and create a world of living systems(21). In this respect, the late Erich Jantsch mentioned that "evolution creates wholeness which interacts autonomously with other wholeness.(22) "

As a result, such living systems make the world in time-space more diversified, more differentiated, more integrated, more complicated, and more opened in self-stabilizing and self-organizing processes just like our sola system in cosmos.

(4)WHAT ERVIN LASZLO LEARNS FROM A. N. WHITEHEAD

As a Hungarian-born and international famed pianist, Ervin Laszlo started his life from New York city. While he performed as his pianist all over the world, he was interested in learning from a synthetic philosophy of A. N. Whitehead. He said, "eventually I came across Whitehead. In his 'philosophy of organism' I believed I had found an answer meriting sustained consideration.(23)" He also mentioned that "Whitehead was illuminating, but not the final answer.(24)" He then completed notes which took on the character of a Whiteheadian process philosophy and centered on man and society, but founded on the natural scientific world picture. The notes finally published as *Essential Society: An Ontological Reconstruction*(25). This book showed as going beyond Whitehead's Philosophy of Organism and as being already in a neo-Whiteheadian stage of transformation(26). On this connection, Timothy E. Eastman, however,commented misleadingly(27).

As his first systems philosopher, Ervin Laszlo learned from the first Whitehead and the second Ludwig von Bertalanffy. He replaced Whitehead's notion of "organism" and its Platonic correlates with the concept of a dynamic, self-sustaining "system" discriminated against the background of a changing natural environment(28). By this replacement it means that he updated to more scientific synthesis of systems than complicated idea of organism led to a kind of vitalism.

As his cybernetics master, Ervin Laszlo learned from the first Whitehead referring to a kind of concrescence process of "many into one" and the second Norbert Wiener's cybernetics model of "input-output and feedback relation". He applied Whitehead's concrescence process and Wiener's cybernetics model into "musical activity" among the composer, the performer, and the listener(29). Norbert Wiener studied abroad to University of Cambridge in the 1910's under A. N. Whitehead and B. Russell who friendly co-worked for completing a new formal logic of *Principia Mathematica*. After going back to the U.S., he created a new discipline of Cybernetics focusing mainly on information and communication systems(30).

As his global leader, Ervin Laszlo learned an adventure of ideas from Whitehead. His leadership covered professors' position at many universities in the world, and directors at the Club of Rome and the Club of Budapest, and in the research projects of the United Nations where Whitehead saw "no hope for the future of civilization apart from world unity based on sympathetic compromise within a framework of morality.(31)" Now he has propelled the WorldShift project(32) all over the world changing a path of unsustainability, conflict, and disharmony to a path toward sustainability, well-being, and harmony among people and between people and nature.

Concluding Remarks: we understand that both Whitehead and Laszlo are intellectual giants, who has encouraged us to understand truth, goodness, beauty and peace. Now we have recognized that Laszlo's systems philosophy could cover a new development of systems ideas, following Whitehead's philosophy of organism plus Wiener's Cybernetics. His standpoint of "everything is living and connected" will be accepted by Asian people, and will be effective to solve the present global problems: human crisis, water and air pollution, over-load against environment, and so on(33). In particular the present author can evaluate that Laszlo as European re-interpreted Asian cultures, or "Thinking Globally Acting Locally or Thinking Locally Acting Globally" time of "everything is living and connected" to construct a new global civilization. He has also contributed to teach us a new world perspective, a synthetic worldview, a constructive way of science and philosophy, and a way of goodness from himself. His systems ideas are now crystallizing a new philosophy of systemism which will go beyond individualism and collectivism in the past(34).

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- (2) See: Paul A. LaViolette(ed.), *A Systems View of Man: Ludwig von Bertalanffy*, Boulder, Colorado: Westview Press, 1981.
- (3) See: Ervin Laszlo, *Beyond Scepticism and Realism: A Constructive Exploration of Husserlian and Whiteheadian Methods of Inquiry*, The Hague: Martinus Nijhoff, 1966; Ervin Laszlo, *La Metaphysique De Whitehead*, The Hague: Martinus Nijhoff, 1970.
- (4) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon and Breach, 1972, viii.
- (5) Ervin Laszlo adopted that the concept of Akasha(Akashic, adj) is a Sanskrit word meaning "ether" to understand cosmos. In my understanding it, I will choose an integrated pattern of energy and information only, not Akasha in cosmos. Cf.: Shigeyuki Itow, "The Possible Future of Asia-Pacific Order," *Business Review*, Fukuoka, Japan: Kyushu Sangyo University, Vol. 20, No. 1, 2009, pp. 53-54; and cf., Shigeyuki Itow, *A New Wave of Civilization from Japan*, Tokyo: Keiso shobo, pp. 146- 158(in Japanese).
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- (9) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, p. 18.
- (10) Donard W. Sherburne(ed.), *A Key To Whitehead's Process and Reality*, New York: Macmillan, 1966, p. 6.
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- (12) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, pp. 36-38.
- (13) A. N. Whitehead, *Process and Reality*, New York: Free Press, 1978, p. 19.
- (14) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, pp. 38-47.
- (15) Shigeyuki Itow, *Systems Politics*, Tokyo: Keiso Shobo, 1987, pp. 25-38(in Japanese).
- (16) A. N. Whitehead, *Process and Reality*, New York: Free Press, 1978, pp. 20-22.
- (17) Arthur Koestler, *The Ghost in the Machine*, London: Hutchinson 1967 Ch. 3.
- (18) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, pp. 48-49.
- (19) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, pp. 48-49.
- (20) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, pp. 51-52.
- (21) Shigeyuki Itow, *A. N. Whitehead's Theory of Politics*, Tokyo: Gakubun Sha, 2008, pp. 104-118(in Japanese).
- (22) Erich Jantsch, *The Self-Organizing Universe: Scientific and Human Implications of the Emerging Paradigm of Evolution*, Oxford: Pergamon Press, 1980, p. 261.
- (23) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, vii.
- (24) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, vii.
- (25) Ervin Laszlo, *Essential Society: An Ontological Reconstruction*, the Hague: Martinus Nijhoff, 1963; Ervin Laszlo, *Individualism, Collectivism, and political Power*, the Hague: Martinus Nijhoff, 1963. See: "In the 1960s, what meaning I found half-buried in particular fields I jotted down, and attempted to bring it into relation with what I found in other fields. I just wanted to understand what the world and life-my life, and life in general-are all about. I made copious notes, but never expected that they would get into print. How they did so is one of the curious episodes of my life," in "An Autobiographical Retrospective" of his book: *Science and the Akashic Field*, Rochester, Vermont: Inner Traditions, 2004, pp. 169-170.
- (26) Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, viii.
- (27) Timothy E. Eastman's comment is as followed: The famous general systems theory of Ervin Laszlo was inspired by Whitehead's philosophy. "I found...that the organic synthesis of Whitehead can be

updated by the synthesis of a general systems theory, replacing the notion of 'organism' and its Platonic correlates with the concept of a dynamic, self-sustaining 'system' discriminated against the background of a changing natural environment"[Ervin Laszlo, *Introduction to Systems Philosophy: Toward a New Paradigm of Contemporary Thought*(New York: Gordon and Breach, 1972),viii]. However, his systems theory is classical whereas Whitehead's philosophy of organism has clear quantum aspects[private communication, David Finkelstein, March, 2002], Timothy E. Eastman and Hank Keeton(eds.), "Duality Without Dualism," *Physics and Whitehead: Quantum, Process, and Experience*, Albany, NY: State University of New York Press, p. 26. I[Itow] do not agree to Timothy E. Eastman's comment of "classical." His definition of classical is unclear in his paper of "Duality Without Dualism."As one of systemists, I classify two: one is systematic systems; the other systemic ones. The former is that "one and one is two" system is quite classical; but the latter is that it is neither"one and one is two" system(mechanical system), nor "more than one and one is two" one(vitalistic system). This kind of system is systemic and holon property after quantum. In my definition, Ervin Laszlo's standpoint is after quantum. David Finkelstein may misunderstand two kind of systems: "systematic" and "systemic" systems.

(28)Ervin Laszlo, *Introduction To Systems Philosophy*, New York: Gordon & Breach, 1972, viii.

(29) Ervin Laszlo, "Cybernetics and Musical Activity," *Systems Science and World Order*, Oxford: Pergamon Press, 1983, pp. 122-138.

(30) Norbert Wiener, *Cybernetics: or Control and communication in the Animal and the Machine*, Mass.: MIT Press, 1948.

(31) A. N. Whitehead, "An Appeal to Sanity," *Essays in Science and Philosophy*, New York: Greenwood Press, 1968, p. 53.

(32)Ervin Laszlo, *WorldShift2012*, Tokyo: Bio-Magazine, 2010.

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(34) See: Shigeyuki Itow, *A New Wave of Civilization from Japan*, Tokyo: Keiso Shobo, 1995(6th Reprint, 2006), pp. 32-50 (in Japanese).

(itow2011329)

A Whiteheadian Evaluation of East Asian Aesthetic Philosophy

JANG Wang Shik (Methodist Theological University, Korea)

wangshik@unitel.co.kr

It is often pointed out that while the advancement of Western civilization has been based on a rational way of thinking, that of Eastern civilization has been based on an aesthetic way of thinking. A good many people think that the highly developed technology based on scientific rationalism can be regarded as one of the typical examples of Western civilization. Although technological advancement was not salient in some Eastern nations, the highly developed religions and arts of those nations can be regarded as an excellent example of Eastern cultures and civilization.

Since I agree with this point in a sense, one purpose of my paper is to introduce the theory that rational thinking has contributed to the great advancement of Western civilization. However, one of my central arguments is that when it comes to the advancement of civilization, such a rational way of thinking has not always entailed the best consequences. This argument will be supported by the fact that many problems faced by Western culture today are by-products of the rational way of thinking. Concerning the case of the East, I will introduce the theory that an aesthetic way of thinking has given rise to creative advancement in Eastern civilization. However, I will also claim that the strength of Eastern civilization has sometimes turned out to be its weakness as well. In other words, I will show that such an aesthetic way of thinking is doomed to be problematic. This is because, I believe, a civilization can be successful only when the aesthetic way of thinking goes hand in hand with the rational way of thinking.

I am well aware that for the sake of my argument, one qualification needs to be made. That is to say, I have to show that these two of thinking can be integrated, even though, at first glance, they seem to be in contradiction. I will propose Whitehead's philosophy as pointing the way to such integration. Although Whitehead preferred aesthetic thought to rational, the two ways are well harmonized in his philosophy.

Among Western scholars are David Hall, Roger Ames and Francois Jullien who have argued for the fact that an aesthetic way of thinking has been dominant in the East. I agree with their assumption in a sense. However, my argument differs from theirs in two perspectives. First, although it is true that an aesthetic way of thinking was dominant in the East, it is also fair to say that both ways of thinking have always been present in it. Second, unless a strong rational way of thinking, which has been usually overshadowed by an aesthetic thought in the East, is to be recovered in East Asia, the Eastern civilization will be doomed to its problems.

My key thesis is that a civilization will turn out to be ideal when the rational and the aesthetic ways of thinking are kept in balance. I will deal with this thesis, showing how some western scholars arguments are limited when they emphasize that the Eastern way of thinking has been dominated by an aesthetic thinking.

Community-An Exemplification of ‘Organic Extensive Society’

Kurian KACHAPPILLY (Christ University, India)

frkurian@christuniversity.in

Abstract

German sociologist Ferdinand Tönnies distinguished between two types of human association: *Gemeinschaft* (translated as “community”) and *Gesellschaft* (translated as “society” or “association”). In his 1887 work, *Gemeinschaft und Gesellschaft (Community and Society)* Tönnies argued that *Gemeinschaft* is perceived to be a tighter and more cohesive social entity, owing to the presence of a “unity of will.” He added that family and kinship are the perfect expressions of *Gemeinschaft*, but that other shared characteristics, such as place or belief and customs, could also be manifested in *Gemeinschaft*. *Gesellschaft*, on the other hand, is a group in which the individuals who make it up are motivated to take part in the group purely by self-interest. He also maintained that in the real world, no group was either pure *Gemeinschaft* or pure *Gesellschaft*, but rather a mixture of the two. However, the paradigm of communal networks and shared social understanding has been applied to multiple cultures in many places throughout history.

In “Sense of community: A definition and theory,” McMillan and Chavis define community as “organisms inhabiting a common environment and interacting with one another.” Though their definition of community as an ‘organism’ is scientifically acceptable, they did not attempt to bring out the dynamics, diversity and complexity of human communities, which the different meanings and varying connotations of the word ‘community’ would imply. The word ‘community’ is derived from the Latin word, *communitas*, meaning “community, fellowship;” or from *communis* with varied meanings such as “common, public, general, and shared by all or many.” We can trace various etymological derivations of these Latin words, like (i) *cum + unire* (to be united with), (ii) *cum + movere* (to move with) and (iii) *cum + munire* (to build up with). My contention is that a proper understanding of the philosophy of organism, as propounded by A.N. Whitehead, can provide us with a better understanding of the diversity, complexity, and richness of human community. In the Whiteheadian terms, community thus is “an exemplification of organic extensive society.”

Key words: Communion, Community, Organism, Unity, Whitehead, etc

1.0. Introduction

1.1. German sociologist Ferdinand Tönnies distinguished between two types of human association: *Gemeinschaft* (translated as “community”) and *Gesellschaft* (translated as “society” or “association”). In his 1887 work, *Gemeinschaft und Gesellschaft (Community and Society)* Tönnies argued that *Gemeinschaft* is perceived to be a tighter and more cohesive social entity, owing to the presence of a “unity of will.”¹ He added that family and kinship are the perfect expressions of *Gemeinschaft*, but that other shared characteristics, such as place or belief and customs, could also be manifested in *Gemeinschaft*. *Gesellschaft*, on the other hand, is a group in which the individuals who make it up are motivated to take part in the group purely by self-interest. He also maintained that in the real world, no group was either pure *Gemeinschaft* or pure *Gesellschaft*, but rather a mixture of the two. However, the paradigm of communal networks and shared social understanding has been applied to multiple cultures in many places throughout history.²

1.2. In “Sense of community: A definition and theory,” McMillan and Chavis define community as “organisms inhabiting a common environment and interacting with one another.”³ Though their definition of community as an ‘organism’ is scientifically acceptable, they did not attempt to bring out the dynamics, diversity and complexity of human communities, which the different meanings and varying connotations of the word “community’ would imply. The word ‘community’ is derived from the Latin word, *communitas*, meaning “community, fellowship;” or from *communis* with varied meanings such as “common, public, general, and shared by all or many.” We can trace various etymological derivations of these Latin words, like (i) *cum + unire* (to be united with), (ii) *cum + movere* (to move with) and (iii) *cum + munire* (to build up with). My contention is that a proper understanding of the philosophy of organism, as propounded by A.N. Whitehead, can provide us with a better understanding of the diversity, complexity, and richness of human community. In the Whiteheadian terms, community thus is “an exemplification of organic extensive society.”

2.0. The Philosophy of Organism

2.1. In the American philosophical tradition, the culmination of Whitehead’s “philosophy of organism”

¹ Ferdinand Tönnies, *Gemeinschaft und Gesellschaft, Darmstadt*. Wissenschaftliche Buchgesellschaft 1887, 22.

² A. Messing, “Panxenos: An outsider's sociology of self.” *Human Architecture* 7/3 (2009), 155-172.

³ D.W. McMillan & D.M. Chavis, “Sense of community: A definition and theory,” *Journal of Community Psychology* 14/1 (1986), 16.

appeared as a development of ontological ideas about processes. In *Process and Reality*, Whitehead credits William James, John Dewey, and Henri Bergson as the main influences on his metaphysics. From Dewey he borrowed the concept of “organism” where “an organism is primarily an entity constituted by the interaction with its environment”. The metaphysics of organism makes central the interactions or processes between entities where the organism is not predetermined, but is rather determined by the interactions or processes. An organism is thus defined by its relation to the world and by not anything prior to it.

Although Whitehead chose to label his system ‘the philosophy of organism’, it has more readily been dubbed ‘process philosophy’, a term which has gained wide currency and now embraces a growing number of philosophers under its tutelage. The very phrase ‘philosophy of organism’ used by Whitehead so often to capture the tenure of his approach, however, remains a challenge to attend to the inter-connectedness and inter-dependence, which deserves to be appreciated as contributing substantially to any organic whole.

2.2. In Chapter II of *Process and Reality*, providing a summary of the primary notions which constitute the philosophy of organism, Whitehead has singled out four notions for special consideration: “that of ‘actual entity’, that of a ‘prehension’, that of a ‘nexus’, and that of the ontological principle” (PR, 18). We, however, discuss presently only the first three of them, for these notions underscore his endeavour “to base philosophical thought upon the most concrete elements of our experience” (PR, 18).

2.3. The concept of an “actual entity” is at the heart of Whitehead's metaphysical system. The term “actual entity” is Whitehead's equivalent of Aristotle's *ousia*.⁴ He has coined this term because the classical term “substance” (translation of Aristotle's *ousia*), which has been used in traditional philosophy for the ultimate existent, is greatly unsatisfactory. Etymologically, it fails to bring out that on which both Aristotle and Whitehead insist, in their respective terms, namely the ultimate sense of ‘existence’. For Whitehead, an actual entity is an entity which is “fully existent.”

Whitehead has defined “actual entities” - also termed “actual occasions”- as “the final real things of which the world is made up” (PR, 18). They are, for Whitehead, “drops of experience, complex and interdependent” (PR, 18). Each actual entity is conceived by Whitehead as “an act of experience arising out of data” (PR, 40). The basic model for these entities is a moment of human experience, which has a genuine unity and which exhibits derivation from some past (data) and some self-determination in becoming the definite thing which it finally is. From such an understanding of the actual entity, it follows that the inter-relatedness of the

⁴ Ivor Leclerc, *Whitehead's Metaphysics: An Introductory Exposition*, New Jersey: Humanities Press, 1965, 22.

actual entities is essential to their very being.⁵ The actual entities, through their essential interconnectedness, make up the composite world of rocks, trees and humans. Hence Whitehead describes the universe as “solidarity of many actual entities” (PR, 40).

2.4. The notion of “prehension” comes to the forefront, when the actual entity is analyzed. The word “prehension” is formed by dropping the first syllable from “apprehension,” which has the meaning of ‘thorough understanding’, or ‘grasp’ by the intellect or senses (AI, 234). In *Adventures of Ideas*, Whitehead offers the following description of prehension: “I use the term ‘prehension’ for the general way in which the occasion of experience can include, as part of its own essence, any other entity, whether another occasion of experience or an entity of another type” (AI, 234).

In order to appreciate how the other actualities can be ‘included in’ the actual entity through prehension, one should analyze the dynamics of prehension. A prehension, for Whitehead, involves three factors: “(a) the subject which is prehending,” namely, the actual entity in which that prehension is a concrete element; (b) “the datum which is prehended;” and taking into account the nature of datum, prehensions may be classified as ‘physical’ (prehensions whose data involve actual entities) or ‘conceptual’ (prehensions whose data involve eternal objects); and (c) “the subjective form,” which is the *how* a subject prehends that datum;” and, for Whitehead, there are many ‘species of subjective forms, such as emotions, valuations, aversions, aversions, consciousness, etc. (PR, 23-24). These three factors are essential to the consideration of a prehension in its concreteness, since prehension is the whole concrete act of the subject feeling the datum with a subjective form.

3.0. The Theory of Society

3.1. The third notion central to Whitehead's metaphysics is the notion of “nexus” or “society.” A nexus is “a particular fact of togetherness among actual entities” (PR, 20). When actual entities are together in a sequence with some degree of ‘order’, involving genetic relations among themselves, this togetherness is termed a “society.” A society is distinguished by “a defining characteristic or form” which is inherited by each member from all the preceding members of the society.

3.2. These societies of occasions can be divided into two: the linear/“personally ordered” and non-linear societies. An evident example for a non-linear society is a tree considered as a colony of cells. Any ordinary physical object, for Whitehead, is an instance of a society made up of societies within societies. A society, on the other hand, becomes a “personally-ordered society,” when a defining characteristic forms “a single line

⁵ James A. Keller, "Some Basic Differences between Classical and Process Metaphysics and Their Implications for the Concept of God," *International Philosophical Quarterly* 22/1 (1982), 6.

of inheritance” (PR, 34). The most familiar example of a personally ordered society is a “stream of consciousness” or a person; and the very high-grade ‘personal’ society constituting a human person/self is dependent on a favourable environment of societies of ever-widening generality.

3.3. Underlining the importance of ‘a defining characteristic’, Whitehead speaks about different types of nexus, which are termed “Regions, Societies, Persons, Enduring Objects, Corporal Substances, Living Organisms, Events”, etc (AI, 197-98). The universe is thus conceived in terms of ‘societies of societies’, and of ‘societies of societies of societies’. That is why Whitehead could hold the view that in the philosophy of organism “the notion of ‘organism’ has two meanings, interconnected, but intellectually separable, namely, the *microscopic* meaning [which is concerned with the formal constitution of an actual occasion] and the *macroscopic* meaning [which is concerned with the givenness of the actual world]” (PR, 128).

4.0. Community: Societies of Societies

The human associations, like family and community, taken in its macroscopic meaning, are societies of societies, which have the unity of a wider society, in which the social coordination is a dominant factor in the behaviours of the various parts. ‘*Community as an organic extensive society*’ is an attempt to bring out the unity and diversity, variety and coordination of community by analyzing various etymological derivations of the Latin words, *communitas* and *communis*.

4.1. Community = *cum + unire* (to be united with)

In the common parlance it seems easier to explain what does not constitute the ‘unity’ of a community than what does. First of all, unity of a community is not conceived primarily in terms of ‘*spatial and temporal togetherness*’. If it were the case, a cattle-shed, for instance, in which the cattle were tied together for days and nights would have been an example of a ‘community’. But, in normal circumstances, nobody would refer to the cattle-shed as an instantiation of community. Moreover, it is not proximity or togetherness, but distance or isolation, which would perhaps heighten the sense of community life. Indeed we really miss our dear ones, when they are away. Secondly, unity of a community is not described in terms of ‘uniformity’, where all members look alike in every sense. Uniformity in terms of dress-code, as in schools and colleges, or working uniform, as with the professionals like doctors and lawyers, does not explain the sense of community. The story of “Procrustes’ bed” in Greek mythology can succinctly illustrate the eccentricity of enforcing uniformity in a community.⁶ A strict uniformity in community life seems to be quite absurd, for the individuals, who constitute the community, are quite unique, one without a second. Thirdly, a

⁶ Procrustes, whose name means “he who stretches”, was an inn-keeper along the road to Athens. He would offer his victims hospitality on a magical bed guaranteed to fit any guest. His ‘one-size-fits-all’ solution was to stretch on a rack those guests who were too short, and to cut off the limbs of those guests who were too tall to make them fit perfectly into the bed.

community is not a 'crowd', which, in its ordinary sense, means 'a gathering of individuals of whatever nationality, profession, or sex, and whatever be the chances that have brought them together'. According to Kierkegaard a crowd manifests three distinct characteristics: (i) anonymity as the saving virtue, (ii) numerical superiority as the decisive consideration, and (iii) mass opinion as the criterion of truth.⁷ On the contrary, an individual is marked by his/her identity, singularity and personal decision; that is, an individual is endowed with a 'name', 'face' and 'voice' respectively. The unity of a community is, therefore, explained in terms of "community of will" (Ferdinand Tönnies), community with "one in heart and mind" (Acts 4:32), community with "a unity of purpose" (Rick Warren), or "a community of love" (*Perfectae Caritatis*, Vatican II).

4.1.1. In the philosophy of organism, "any set of actual occasions are united by the mutual immanence of occasions, each in the other" (AI, 197). This mutual immanence of a pair of occasions, however, is, in general, *not symmetric* relation. For example, an earlier occasion 'A' will be immanent in the latter 'B' according to the mode of efficient causality, and the latter 'B' in the earlier 'A' according to the mode of anticipation. But if the nexus is purely spatial, it will include no pair of occasions, which are related in terms of 'antecedent and consequent'. The mutual immanence of contemporary occasions will be one of 'indirect type. "If the nexus is purely temporal, it will include no pair of contemporary occasions" (AI, 202).

In our ordinary experience, things are separated by space and time; but they are also together in space and together in time, even if they are not contemporaneous. This is what Whitehead calls "the *separative* and the *prehensive* characters of space-time" (SMW, 64). Indeed, he also speaks about a third character of space-time: the *modal* character. Taking, for instance, volume, which is the most concrete element of space, Whitehead argues that the prehensive unity of volume is not the unity of a mere logical aggregate of parts, but an "ordered aggregate," in the sense that each part is something from the standpoint of every other part, and also from the same standpoint every other part is something in relation to it (SMW, 64).

4.1.2. Heraclitus' well-known doctrine that "no one crosses the same river twice" speaks volumes against all claims of 'uniformity' for the sake of unity. To this vision of Heraclitus, Whitehead adds, 'no subject experiences twice' (PR, 34). Whitehead maintains that "actual entities, which are the final real things of which the world is made up, are "real, individual and particular (PR, 24). What is recognized in his philosophy of organism is not only a plurality of actual entities, but also that they differ among themselves: "there are gradations of importance and diversities of function" (PR, 23). The classical

⁷ Soren Kierkegaard, *The Point of View for my Work as an Author*, trans. Walter Lorie, New York: Harper and Row, 1962, 110.

concept of '*scala naturae*', which literally means 'ladder or stair-way of nature', explains a similar hierarchical ranking or gradation of all forms of life. These gradations are thought of as parts of the 'Great Chain of Being', as described by St. Thomas Aquinas, which extends from God down to the lowest forms of life.

4.1.3. A society, as explained above, is distinguished by "a defining characteristic" or "form" which is inherited by each member from all the preceding members of it. What accounts, therefore, for self-identity of a society or 'community' is the identity of "form," shared by all experiences which constitute the society. For, "in the philosophy of organism it is not 'substance' which is permanent, but 'form' (PR, 29), or 'character'.⁸ This could be compared to an "artist's style" which is a unifying element throughout a life's work without inhibiting originality.⁹ For instance, Michelangelo had his own special style in all his art-works, whether they were marble carvings or fresco paintings, an impassioned and highly personal style that resulted in 'Mannerism', which distinguished his works from those of other artists.

4.2. Community = *cum + movere* (to move/walk with)

In the religious parlance, community – a society of individuals – implies an invitation 'to walk with the other' with mutual recognition, respect and love. Indeed, the Bible is replete with events in which Yahweh/God walked with human beings: "They heard the sound of the Lord God walking in the garden" (Gen 3:8); "The God before whom my ancestors Abraham and Isaac walked" (Gen 48:15); "The Lord went in front of them in a pillar of cloud by day, to lead them along the way, and in a pillar of fire by night, to give them light" (Ex 13: 21). First of all, 'walking with the other' presupposes, what St. Thomas would call '*fiducia*', fidelity or faithfulness, which would help us overcome any possibility of betrayal of faith, trust and love; and the willingness for a *metanoia*, a genuine conversion, at the instances of human frailty and fall. The salvation history unveils the stories of betrayal of fidelity and love through the fall of Adam and Eve, and the gift of conversion and life through the second Adam, Jesus Christ. Secondly, 'walking with the other' is an open invitation which would transcend boundaries of 'particular' friendships, based on petty interests and concerns, like parochialism, regionalism, and nationalism. In fact Jesus sets the model to be followed in making friendship: Jesus replied, "Who is my mother, and who are my brothers?" And pointing to his disciples, he said, "[...] whoever does the will of my Father in heaven is my brother and sister and mother" (Mt 12: 48-50). Indeed, the invitation to walk with is extended to all men and women of 'good will' beyond the walls of discrimination and favouritism.

⁸ Charles Hartshorne, *Reality as Social Process: Studies in Metaphysics and Religion*, New York: Hafner Publishing Company, 1971, 197.

⁹ Elizabeth Kraus, *The Metaphysics of Experience* (New York: Fordham University Press, 1979), 68.

4.2.1. In the philosophy of organism, the very idea of ‘process’ implies inter-dependence and inter-relatedness. Perhaps the greatest discovery of Whitehead is that “process or concrescence of one actual entity involves the other actual entities among its components,” (PR, 10), and in this way he could explain the obvious solidarity of the world. Whitehead goes on to claim that “the philosophy of organism is mainly devoted to the task of making clear the notion of ‘being present in another entity’” (PR, 65). In order to make clear how one actual entity can be ‘present in’ another, we need to understand the dynamics of the doctrine of prehension involved in concrescent integrations, and particularly the theory of objectification and subjective aim.

4.2.2. The term ‘objectification’ refers “to the particular mode in which the potentiality of one actual entity is realized in another actual entity” (PR, 28). An actual entity in the process of concrescence is a ‘subject’, creating itself out of data. When the process of self-creative activity ends, the actual entity perishes. Thus it ceases to be a subject, but it becomes an object for the superseding actualities. In other words, upon perishing the actual entity becomes ‘objectified for’ superseding actualities. Whitehead’s use of the term “subject-superject” (PR, 34) explains the same process of ‘objectification’. Accordingly, an actual entity is at once the ‘subject’ experiencing and the ‘superject’ of its experiences. An actual entity as ‘subject-supereject’ is thus conceived as one ‘epochal whole’ of activity.

4.2.3. The process of objectification also involves elimination: elimination of incompatible elements. As we have seen, the data for an actual entity include various elements mutually incompatible, and as they conflict each other, they lower the intensity of experience in the prehending actual entity. Hence Whitehead also speaks of ‘negative prehension’ as “the definite exclusion of that item from positive contribution to the subject’s own real internal constitution” (PR, 55). The process of internal constitution requires that “in the primary phase of the subjective process there be a conceptual feeling of subjective aim” (PR, 262). The initial stage of the aim is an endowment which the subject inherits from the inevitable ordering of things, conceptually realized in the nature of God; and in that sense, God can be conceived as the ‘provider of the subjective aim’. This does not, however, imply that God is in the past of all actual entities, as if God was once the solely existing actual entity. For, Whitehead, the initial stage of the aim is rooted in the nature of God, while it’s “completion depends on the self-causation of the subject-superject” (PR, 285).

4.3. Community = *cum + munire* (to build up with)

Finally, a community, as a society of individuals, is both a call and a challenge: a call “to be perfect as the heavenly father is perfect” (Mt. 4:48), and a challenge to grow into the perfection of God. The growth into the perfection of God is not a static reality to be possessed, but an on-going process which involves continuous striving, facilitated by a life in prayer and a sharing of the spirit (Acts 2:42). Such growth into

the perfection of God manifests itself in one's own life, by excelling one another in showing respect (Rom 12:10), and by carrying each other's burdens (Gal 6:2), and thus building up a true family. Indeed, a community life is thus envisaged to be a 'win-win' situation over and above the 'loss-loss', 'win-loss' or 'loss-win' situations, where one can say: "I am ok, you are ok, and therefore, we are ok." It is my conviction that in order to arrive at the philosophical generalization of all what is meant by community = *cum+munire* (to build up with), we require what Whitehead's calls "a redundancy of terms" (AI, 236), like 'creativity, concrescence, creative advance, etc.

4.3.1. 'Creativity' is one of the three notions in the Category of the Ultimate. The term 'creativity' for Whitehead expresses "the notion that each event is a process issuing in novelty" (AI, 236). Creativity, which is "the principle of novelty" (PR, 26), introduces novelty into the content of the many, which are the universe disjunctively. Creativity is not conceived as an 'entity' (like actual occasions or eternal objects), but the general metaphysical character which underlies all occasions.¹⁰ Creativity, while not itself actual, is instantiated in the individual actualities; and for Whitehead, "God is the aboriginal instance of this creativity" (PR, 344). Creativity, variously described as 'neutral stuff' (PR, 37), 'infinite substance' (Spinoza), 'real potentiality' (AI, 179), can be analogously termed as 'the spirit of God', which every individual occasion/member is invited to instantiate in the individual creatures, and thus partake in the primordial instantiation of creativity, i.e. God.

4.3.2. The term 'concrescence' implies the "production of novel togetherness": [...] the many become one, and are increased by one" (PR, 26). In the process of concrescence, entities which are disjunctively many pass on to conjunctive unity. Thus there are process of 'integration' and reintegration' (PR, 289). This process of integration and reintegration of diverse feelings proceeds until the concrete unity of feeling is obtained. This final unity is what Whitehead calls "satisfaction" (PR, 244); and satisfaction, for Whitehead, is the culmination of the concrescence into a completely determinate matter of fact. However, the foundation of all understanding is that "no static maintenance of perfection is possible. Advance and decay are the only choices offered to humanity."

4.3.3. The 'creative advance' is "the application of the ultimate principle of creativity to each novel situation which it originates" (PR, 26). The idea of creative advance involves three functors: "(a) genuine novelty appears in the world, (b) past events do not vanish completely, and (c) there is an upward trend in terms of 'intensity' or 'value' of experience."¹¹ This process of 'creative advance' can be compared with the natural course/flow of a river, which is very narrow and shallow at its source, but becomes wider and deeper as it

¹⁰ Cf. A.N. Whitehead, *Science and the Modern World*, 178: "God is not concrete, but He is the ground for concrete actuality."

¹¹ Michel Weber, *Whitehead's pancreativism: the basics*, Heusenstamm, Germany: Ontos Verlag, 2006, 41.

runs down to the ocean. Similarly, there is an ever-growing multiplicity of attained actualities in the creative advance of the universe; this is the cumulative character of actuality. Thus the universe is conceived as the ‘solidarity’ of all actualities: “each is all in all” (PR, 348).

4.3.4. The creative advance as a process of building up can be conceived differently in terms of (a) temporality and (b) in terms of God’s experiences as the foundations of progress. In the Whiteheadian view, the actualities of the universe are processes of experience, and the whole universe is conceived as the advancing assemblage of these processes. As the Platonic dictum suggests, the very meaning of existence is “to be a factor in agency,” or “to make a difference” in the creative advance of the world. To make a difference would imply making oneself available as a factor (‘object’) in the becoming of the concreting subject. The fact of making available constitutes the essence of ‘objective immortality’ (PR, viii), which also explains ‘how the past lives in the present’. Is it not a consoling thought that the community as a society of individuals can contribute to the ever growing human and divine treasury of values in a special way!

5.0. Conclusion

5.1. So far I have been trying to explain the dynamics of community – its unity and diversity, its simplicity and complexity, its limitations and richness, interpreting the notions and theories of Whitehead’s “philosophy of organism”, as propounded in his major works, *Process and Reality* and *Adventures of Ideas*. Indeed, it is but a humble beginning of an adventure, an endeavour to express/articulate an understanding of the lived-experience of a community, as it has been conceived and lived by millions of people down through the history. At this juncture, we should bear in mind that it is not always easy and simple to translate complex community acts and particular experiences into systematic philosophical categories and discourses. However difficult the task may be, it should not deter us from philosophizing in the context of the lived experience of any given community.

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A Korean Panentheism: Ham Seok-heon's Thought for Future Civilization

KIM Hiheon (Hanshin University, Korea)

kimhiheon@empal.com

Introduction

Ham Seok-Heon(1901-89), called “Korean Gandhi” or “Prophet in the wilderness,” is one of the greatest thinkers in the modern history of Korea. In spite of his relatively low reputation in the world history, he has been renowned in Korea as a pious religious seeker, journalist, historian, and political activist. Indeed, Korea could be proud of having had such a creative religious thinker in her short history of Protestantism. His greatness is in the embodiment of the essential request that his time craved for.

What is the request? In the late modern period, the western civilization began to be colored with the atheistic worldview. The reason is deeply related to the depravation of Christian thoughts into the obsolete position. The western thinkers in the second half of the nineteenth century, who declared “God is dead,” poignantly criticized Christian theology in two senses. The one is about its intellectual decadence, the other about its ethical/political wickedness to vindicate the ruling system. Nietzsche, whose father and grandfathers were clergies, ridiculed the cultured Christians, who were addicted to religious embellishment and sociality. However, he praised the faith that has “presaging dreams and astral premonition.”¹

It is not an exaggeration that the 20th century Christianity used the one century for cultivating the faith and thought for which Nietzsche longed. In order to revive its essential spirituality, Christianity

¹ Friedrich Wilhelm Nietzsche, “The Land of Culture” in *Thus Sprach Zarathustra* [Korean Translation] (Seoul: Numen, 2010), 146.

tried to establish a new thought framework in which the fruit of science and philosophy is harvested and also the socio-political criticism is alive. The Christian theologies, which represented the stream, are the process thought for the former and the liberation theology (minjung theology in Korea) for the latter. In Ham's thought, the two theologies get together into confluence. His idea has a vivid consciousness that criticizes the outdated beliefs, which suspect "science as enemy," and the institutional religions, which remain in "the lascivious worship with the adoration of power."²

The purpose of this essay is to show how the two thoughts meet together and support each other in Ham's thought. It discusses that Ham's cosmopolitan panentheism comprehends both the inclusive conceptions with "the astral premonition" and the noble religiosity with "the presaging dreams" in three parts. First, it surveys the intellectual significance of panentheism and characterizes Ham's religious worldview as panentheistic. Second, it analyses the epistemic and theological structure of Ham's idea in comparison with the process philosophy of organism. Third, it speaks of his religious vision that prepares the advent of the Korean version of liberation theology, minjung theology, which appears in 1970's.

I. Ham Seok-Heon's Panentheism Toward a Universal World-consciousness

Panentheism as an Inclusive Religious Worldview

"The strongest time in the human life is when one unambiguously perceives the cosmic history."³

Generally, religion and science move forward for having an "unambiguous vision of the cosmic history" and grow in constant changes of mind toward "the strongest feeling of one's life." The result of such an endeavor may be inscribed in the Christian scripture: "In him [God], we live and move and have our

² Ham Seok-Heon, "The Awakening of a New Nation," in *The Collections of Ham Seok-Heon's Works*, Vol. 3 (Seoul: Hangilsa, 2009), 141; "Politics and Religion," 2:87. (I will mark the volume and page number of *the Collections* like this from now on)

³ Ham Seok-Heon, *A Korean History from the Perspective of Purpose*, 30:34.

being” (Acts 17:28), and “one God and Father of all, who is above all, through all, and in all” (Ephesians 4:6). Numerous theologies came out and faded away in human eagerness to grasp the meaning and aim of life in relation to the organic conception of God and the world. Especially, the more the modern reason acquired the authority, the more the traditional belief needed a fundamental examination. Panentheism emerged out in the late modern time in accordance with this need.

The term panentheism is coined by German philosopher K. C. F. Krause (1781-1832) who wants to distinguish both of the Christian supernatural theism and its counter view, pantheism, from his “doctrine that all is in God.”⁴ However, according to C. Hartshorne who broadens the worldview in the area of the philosophy of religion in the mid 20th century, panentheism is a far older idea.⁵ Nevertheless, there is a clear reason that panentheism sprang out of the late modern western civilization. One of the fundamental reasons is that, when the traditional Christian supernaturalism resulted in deism in the 18th century, it did no longer satisfy the modern reason with a persuasive vision of the world.⁶ The failure of the traditional idea brought about two alternative ideas, pantheism and scientific atheism; however, they did not explicate the religious witness and the cosmological motivation in the traditional theism, and therefore could not be a sufficient alternative.

For this reason, panentheism had to be a very complex thought system that comprehends the problem of the traditional Christian theism and also notices the miserable effect of the late modern atheism and yet makes clear its difference from pantheism. Because it was not systematized by one thinker but receives the variety of nutrition from mature religious thoughts, panentheism takes many

⁴ John W. Cooper, *Panentheism: The Other God of the Philosophers* (Grand Rapids, Michigan: Baker Academic, 2006), 121.

⁵ Charles Hartshorne and William L. Reese, *Philosophers Speak of God* (Chicago: University of Chicago Press, 1953), 16. Hartshorne clarifies the intellectual history of the religious worldview and suggests a guideline for panentheism, according to which it must contain all of the following five elements as the characteristics of God : 1) eternal, 2) temporal, 3) conscious or self-aware, 4) knowing the world, namely omniscient, and 5) world-inclusive. According to Hartshorne, panentheism is dated from such an old time as Ikhnaton in Egypt, Lao-tse of China, Plato of Greece, Hindu Scriptures, and Judeo-Christian Scriptures.

⁶ The traditional Christian supernaturalism in the 18th century deism can be characterized with the following three elements: 1) cosmic dualism in which God is totally external from the world, 2) mechanistic worldview that implies the divine immutability in relation to the world, 3) miracle as the intermittent and interventional divine action.

voices. However, the modern panentheism commonly entails three elements. First, it receives “a natural outcome of certain crucial developments in modern philosophy.” Second, it offers “a framework for speaking of divine action in the context of modern science.” Third, it attempts to respond to “specific conundrums within Christian theology.”⁷

In definition, panentheism speaks of “the belief that the Being of God includes and penetrates the whole universe, so that every part of it exists in Him, but (as against Pantheism) that His Being is more than, and is not exhausted by, the universe.”⁸ This idea has an affinity with Christian theology. However, as far as it seeks a general truth, it can dialogue with various religious thoughts. What matters in our discussion is to reveal how panentheism could provide our age with an unambiguous vision of the cosmic history and human life.

General Character of Ham Seok-Heon’s Panentheism

“The lack of universal world-consciousness, this is the root of all predicaments in our time.”⁹

Ham Seok-Heon harmoniously understands being, history, and universe, and stresses both of contemplation and praxis, prayer and politics, and belief and work. His idea is rational as well as religious, scientific as well as ethical, and speculative as well as practical. He attempts to show the comprehensive meaning and possibility of the human spiritual activity. This eagerness is expressed especially through his religious idea of which he speaks as “new religion.” His idea is very unique in that the eastern and western thoughts creatively get together in it. However, its original virtue is not merely in the all-embracing synthesis but in the leading quality of value. Although he was brought up with the two traditions of East and West, he willed to cultivate a new spirit rather than being simply faithful to

⁷ Philip Clayton, *Adventures in the Spirit: God, World, Divine Action* (Minneapolis: Fortress Press, 2008), 118.

⁸ Philip Clayton and Arthur Peacocke, eds., *In Whom We Live and Move and Have Our Being: Panentheistic Reflections on God’s Presence in a Scientific World* (Grand Rapids, Michigan: William B. Eerdmans Publishing Company, 2004), xviii.

⁹ Ham Seok-Heon, *A Korean History from the Perspective of Purpose*, 30:36.

the traditions.

His idea of “new religion” seeks to be a new understanding of the cosmos and to contain a lucid criticism of the obsolete dogmas, which block the proceeding of novelty. For Ham, the cosmos is a living organism.¹⁰ Life in the cosmos is neither created by the divine unilateral will nor lasts as an enduring individual in the law of causality. He criticizes predestinarianism as a perversion of rationality and religiosity. He says,

I don't think that the divine providence is not fixed and programmed. As we think deeply, we became realized with it. A claim that Korean people have been destined to such and such is merely fatalism, not faith. ¹¹

Also, he understands the scientific atheism as another perversion. As the modern science went through the atheistic materialism, the cosmos lost its beauty of life and reduced to be a dead world which is bound up with the causal chain. He says,

Every being such as mind, matter, life, and nature and all of its changes get out of the one purpose of God. Without the purpose, there is only nothing and no work. This idea is fundamentally different that of modern science. Modern science does not think about the aim of history at all. If modern science avoids a dubious middle position, it cannot help but sinking into materialism.¹²

Ham Seok-Heon considers history and the cosmos as the eternally ever-renewing movement and names the subject of the movement, namely life in the cosmos, as SSI-AL.¹³ However, the activity of

¹⁰ Ham Seok-Heon, “Korean Today Seen through the Eye of Purpose,” 1:201. “This cosmos is a living organism that has a will to proceed by itself. It is observed scientifically as the evolution of life and religiously as toward the completion of Kingdom of God or the Pure Land.”

¹¹ Ham Seok-Heon, “At the Beginning, There was the Word,” 21:225.

¹² Ham Seok-Heon, *A Korean History from the Perspective of Purpose*, 30:55.

¹³ In Korean, SSI-AL literally means a seed. Ham Seok-Heon and his mentor You Young-mo (Da-seok) developed an organic cosmology and put it into this term. In the intellectual history of Korea, SSI-AL thought is very important. For it represents a critical point of the confluence of the eastern traditions and western thoughts. Later, Korean

SSI-AL is not separated from God, the purpose of the whole universe. The trained Ham comprehensively grasps an organic relationalism that panentheism seeks to develop, namely, a thought for organic relations between freedom and order in the cosmos, divine transcendence and immanence, the infinite and the finite, the absolute and the relative, and the eternal and the temporal, and one and many. Such an idea clearly aims at both criticisms of the Christian transcendental dualism, which stresses the former of the pairs, and the atheistic scientism, which entirely neglects the relation itself or partially stresses the latter of the pairs. According to panentheism, life in the cosmos is a self-moving entity, and yet the autonomy of the entity has meaning and ground in relation to God. Ham also says,

The absolute and the relative are opposite to each other. However, mere opposition destroys all. That's why religion calls God as being transcendent and immanent. If God is only transcendent, God could give us rest but creating life. On the contrary, if God is only immanent, God could make us to create but to rest. The absolute is only seen through the relative, not away from it; the relative is not ignorant of the absolute but reveals it. The cosmos is growing older moment by moment; however, it displays the eternity of God in itself. God is holy one and yet gives all loving hands to the world in every moment. In this way, the wheel of the ever-renewing life history is rotating.¹⁴

Although Ham Seok-Heon is a son of the eastern tradition, he does not simply absorb its milk. Generally, the eastern thought is much different from the western individualistic philosophy. Because of the philosophical individualism, the infinite individual (God) and the finite individuals are separated. As a result, the western civilization inevitably proceeds to the extremes, supernaturalistic theism and naturalistic atheism. Ham likes Mencius and Lao-tzu and appreciates the eastern thoughts that regard

minjung theology understands that minjung is the subject of history while SSI-AL is the subject of the cosmos. That is, whereas minjung is used as a socio-political term, SSI-AL as a cosmo-ontological term. Suh Nam-dong, *A Search for Minjung Theology* [민중신학의 탐구] (Seoul: Hangilsa, 1983), 63, 182.

¹⁴ Ham Seok-Heon, "A Way of New Life," 2:207.

the nature as living.¹⁵ However, he supposes that the theistic immanentism of eastern religions or “the philosophical cosmology” could not fully suggest “the unambiguous idea of the cosmic history.”¹⁶

Ham’s religious thought has a complexity with which panentheism concerns. It attempts to integrate the wisdom of earlier thoughts in the critique of all of the following three ideas : 1) the traditional Christian dualistic theism, 2) the atheistic naturalism that lost the meaning of religion, and 3) pantheism that simply identifies God with the world ontologically. This integration aims at the establishment of “the universal world-consciousness” to cure “the root of all predicaments in our time.”¹⁷ Let’s see what he says for this.

II. Ham Seok-Heon’s Panentheistic Idea of God and the World

Two dimensions of Ham’s Religious Language for Harmonious Thinking

“Truth is always in the whole. Only the whole can speak of a categorical imperative and its fundamental condition.”¹⁸

According to Ham, the nature of religion and the human disposition is to seek the unchangeable truth in spite of living in the ever-changing world. What is the eternity that human being seeks in the world of flux? In order to answer to this question, Ham suggests a sensible thinking of two worlds, the material and the spiritual. Differently speaking, he stresses the importance of a sensibility to discern two linguistic structures, ontological and axiological. He speaks of these two worlds as having a different

¹⁵ Ham Seok-Heon, “What a Terrible Look of This Country,” 25:125.

¹⁶ Ham Seok-Heon, “Creation of the Cosmos,” in 17:43. He says, “The East contemplates the ground of the cosmos with an idea of dual extremes, such as *yin* and *yang* and the Void and the Absolute. Among the eastern thoughts, although some acknowledge God as the background, it is merely an order of nature or a different name of Tao(道) or something pantheistic, not a creating God.” This quotation is written in 1936 by the immature Ham. At this time, he remains in the position to say that “Christianity is the only true religion.” In 1965, he confesses that “I could not stay always in belief in other religion [Christianity].” Nevertheless, his criticism of eastern pantheism continues. The influence of Christian thought is deeply rooted in him.

¹⁷ Ham Seok-Heon, “A New Ethic,” 3:54. He says, “In the future, the required ethic should be not merely humanitarian but cosmic in its dimension.... It takes this globe as its harbor and starts to row toward the ocean of the cosmos.

¹⁸ Ham Seok-Heon, “A Philosophy of Everyday,” 13:51.

order in thought and yet as being a different way to describe the same reality. Confused with this difference, a sound religious thought cannot be acquired.

Let's use this chart in order to understand Ham's idea.

[Rough categorization]	Axiologically Material-world-seeking	Axiologically Spiritual-world-seeking
Ontologically Material-world-centeredness	(A) Scientific atheism (Sensationist materialism)	(B) Panentheism (Relational theism)
Ontologically Spiritual-world-centeredness	(C) Supernaturalistic deism (institutional religion)	(D) Idealistic mysticism (non-institutional religion)

The scientific atheism (A) and idealistic mysticism (D) are monistic. A is materialistic; D is idealistic.

The reason is due to their negation of one world: While A denies the spiritual, D negates the material.

Therefore, the scientific atheism finally reaches to the axiological materialism because of its ontological materialism. On the contrary, the idealistic mysticism loses the actual field (material world) for its spiritual adventure.

A more important notice must be heeded to the other two (B and C). These two ideas acknowledge the reality of the two worlds. However, because of their different sensibility of the two linguistic structures, while C contorts our thought by a perversion of the value judgment of the two worlds, B advances to a more integral idea by balancing the value of the two worlds. For explaining it, we can refer to Paul Tillich. According to him, the institutional religion utilizes the dual language and yet fails to “demonization” and “profanization.”¹⁹ By demonization that grants the infinite value of the spiritual world to the power which is acquired in the finite material world, the supernaturalistic deism sanctions institutionalized religions, their doctrine and system. By profanization that negates any meaning and value existing in the actual world, it denigrates the sublime aspiration to obtain the supremacy in the actual life. While the axiological secularism prevails through the perversion of demonization, the

¹⁹ Paul Tillich, *Systematic Theology*, vol. 3 (Chicago: The University of Chicago Press, 1963), 98, 102.

ontological nihilism is triumphant through the perversion of profanization. Because of these two perversions, the institutionalized religion betrays a severe secularity in its shining words about the spiritual world.

According to Ham, such perversions occur due to the lack of ethical and aesthetic sensibility to evoke in mind “the grand unification of the whole.”²⁰ A harmonious thinking necessarily needs “an unambiguous vision of the cosmic history” that the cosmos includes the purpose of the infinite and creatively advances towards the fulfillment of such purpose. The cosmos in which we live is

simply seen as everlastingly passing over in its phenomena. However, the cosmos has a different aspect in its purpose.... A value which is out of the purpose is related to its ground.

The ground of the value is God, the absolute value. To know this absoluteness is the aim. And the movement, stirred by the aim, is history.²¹

If so, we cannot accept profanization, which negates any value of the actual world, although our actual world is futile and ambiguous. Also, in spite of the noble exertion of the actual world, we must refute demonization that absolutizes the value of the world itself. Our cosmos has an intrinsic value in it, but the value is not of the world alone.²² This sensible idea makes sure an organic understanding of God and the world.

The Relation of God and the World: The Co-creation of God and SSI-AL

“God is not the Being simply to be, but the Purpose ‘willing’ to be.... From this willingness, the eternal and the absolute come out. That is why history is continually changing.... Life is changeless in change, and constantly changing to be changeless. It is one as well as many, and displays one with its many. Therefore, the change bears a passage. The passage is epoch. And the epoch is the Word [of God].”²³

²⁰ Ham Seok-Heon, “A New Ethic,” 3:38.

²¹ Ham Seok-Heon, *A Korean History from the Perspective of Purpose*, 30:56-7.

²² We can see the same idea in Alfred N. Whitehead’s book, *Religion in the Making* (New York: Fordham University Press, (1926) 1996), 87-88, 157.

²³ Ham Seok-Heon, “Human Revolution,” 2:16.

Ham Seok-Heon depicts the cosmos and history as living, and their liveliness is grounded by its reason, God. The idea that the origin of life is in ‘reason’ or ‘purpose’ is a criticism of modern science that denies the reality of value, rather than a religious confession.²⁴ He points out that a thought, which denies the reality of value, must fail to grasp the totality of the cosmos. The reason is because

the origin of life is deeply related to the meaning of life. Without knowing the meaning, the origin is always veiled.... Without thinking of the meaning, to speak of the origin is absurd. In the world of meaning, there is nothing that exists without reason. Reason determines the chance and the mode of existence.²⁵

However, the meaning or reason is not only originated from God but also from life (SSI-AL) that wills to be adjoined with God. Life is conditioned and limited within the complex web of the cosmos and yet has freedom such as self-creativity, self-transcendence, and self-redemption to get over continually its past limit. This self-doing of life is not separated from the realization of the divine purpose. The vibration of the cosmos and the march of history remain possible in the combination of God and life. Therefore, “history is divinely predestined as well as humanly fabricated. History has its character so that it is aging and yet always fresh, destined and yet free, and necessitated and yet ethicizing.”²⁶ If there is no freedom of life, the creation of God is not different from the assembly of the dead machine. However, the western civilization in the modern period is based on such fatal errors as its theological predestinarianism and scientific reductionism. If so, why is there any reason that God is still creating, and how foolish is Jesus’ saying that “My Father is still working, and I also am working (Jn 5:17)” if the cosmos does not have self-creativity?

In order to express this dynamic relation through a theism, Ham Seok-Heon suggests that God is not a Being to be but a Being ‘willing’ to be, and the reality of God is not merely something but something

²⁴ Ham Seok-Heon, “The Creation of Life,” 17:65.

²⁵ *Ibid.*, 17:53.

²⁶ Ham Seok-Heon, “Religion for the New Age,” 14:28-29.

willing. In his Christian faith, such understanding can explain the traditional belief that safeguards both of divine grace and human freedom. However, unlike the traditional theology that finally fails to explain the relation between the two because of its philosophical basis of dualistic supernaturalism, Ham makes clear their harmonious relation. In his idea, as God creates, so the cosmos evolves; as God's grace is engaged in, so human freedom is strengthened; as the Kingdom of God comes, so the world is renewed rather than being annihilated; when Christ is coming, minjung are resurrected and redeeming themselves.

In order to point out God's continual creation and its theological meaning, Ham suggests that God is "eternally incomplete." He says,

History is an ascending movement of going up to the stairs of eternity. It is an incomplete music of eternity. It is close to a truth to say that God would be also eternal incompleteness rather than dead completion. Because of it, all creation is outpouring, and the wheel of history is rolling.²⁷

Ham's God is incomplete because the palpitating cosmos is understood as in the continual creation by the cooperation of God and the world. Such an idea is drastically different from the philosophical theism on which traditional Christian theology has been based.²⁸ One may have a question that such incomplete God can possibly be the sufficient ground for "the everlasting covenant" (Gen. 17:19).

However, it is beneficial to learn Ham's dynamism rather than to trust a formal logic.

That Ham speaks of God as "eternal incompleteness" means that he understands God as both eternal and incomplete, not as simply imperfect. That is, God is infinite whole and still growing whole.²⁹ This idea is essential to establish "an unambiguous vision of the cosmic history" that witnesses the world full

²⁷ Ham Seok-Heon, *A Korean History from the Perspective of Purpose*, 30:74.

²⁸ Here, I understand the traditional philosophical theism that God is perfect, eternal, infinite, omnipotent, omniscient, and omnipresent, so that the God is immutable and complete.

²⁹ Ham Seok-Heon, "An Idea of Nation in History," 13:147. He says, "The whole is not a fixed whole but a continually growing whole."

of self-transcending lives. In traditional Christian theology, God is inferred as a being perfect due to being infinite, and as being unchangeable due to being perfect. The theology equalizes three different categories, infinite, perfection, and immutability. This standardized idea generates the theological predestinarianism and the scientific determinism (mechanism). However, they betray a weak imagination drawn out of a simple formal logic. Rather, Ham's paradoxical thinking shows more clearly the reality of God that Christian faith sees. He says,

Because God is spirit, God is creating in rest and can rest in creation. Resting is at once working; God is resting through working. Therefore, God is giving but not being exhausted; God is receiving but not being more. God is not living within the law of having and not-having. God is Life that is not weary in any doing, and Spirit that does not make a gap in not-doing. God is everlastingly self-renewing.... The reason that God is the absolute peace is because God is self-renewing.³⁰

For Ham Seok-Heon, God is the infinitely “greatest(환, 韓)” being who embraces all cosmos, the Creator who fosters all lives within Oneself, and “a permanent youth, eternal incompleteness.”³¹ God is not satisfied with a fixed history and therefore rolling it newly and eternally. Only this God capacitates the evolution of the cosmos and the advance of history. Ham's thought that God is “eternal incompleteness” implies double criticisms: On the one hand, it criticizes the deistic idea of watch-maker who created the clock-wise (dead) cosmos at once. On the other hand, it turns over a mythical ideology of ruling groups that the institutionalized system has been sanctioned by the divine law. On the contrary, it is an encouragement of a youthful mind that is always rising up and a response to the hope of minjung who breaks all socio-political bondages. Let's listen to a word one more time:

God is the One who makes Oneself out, who bursts into passion, and who opposes, insists, and

³⁰ Ham Seok-Heon, “A Way of New Life,” 2:206.

³¹ Ham Seok-Heon, “Resurrecting April and the Education of SSI-AL,” 9:271.

protests. God is incompleteness of eternity.... At the end of vibrating and shaking, God shouted out with a thundering word, "Let there be light!" Then, the old God of 'perfection' died and exploded into dust and motes. Then, the entirely new history of life begins.³²

III. Ham Seok-Heon's Idea of Religion as Genuine Revolution

SSI-AL as the Subject of Religion and the Suffering of Minjung as the Starting Point of Religious Witness

"Life is alpha and omega. It is the end and the means. The path of life is not regulated by something outside. Life itself is rule and category."³³

In Ham Seok-Heon's thought, religion is "the breath of spirit" to know the purpose of God and the struggle of self-arising SSI-AL for making complete the purpose. Accordingly, the subject of religion is neither religious institutions nor clergies, and religion does not succeed and fail by creeds and theologies. The subject of religion is SSI-AL, and the purpose of God is achieved through the self-doing of SSI-AL, which constitutes the reality of religion. He says,

All religion is the same. A denominational claim for the only true religion is a fabrication....

For religion belongs to life. The habit of life is religion. Everyone can believe by oneself. A true belief is of the one who takes more care of oneself because belief is life's self-doing.... Religion cannot be a profession since it is neither a knowledge nor a skill but the nature of human being.

Religion is the breath of spirit.³⁴

Because religion is "the habit of life," the subject of religion is SSI-AL that embodies life. If the purpose of God is being realized through the self-doing of SSI-AL, there is nothing that bridges between the self-doing SSI-AL and God the ground of the purpose to self-do. God is near as well as far off (Jer.

³² Ham Seok-Heon, "Philosophy of Resistance," 2:115.

³³ Ham Seok-Heon, "Resistance," 2:125.

³⁴ Ham Seok-Heon, "A Philosophy of Everyday," 13:71.

23:23). God is farthest away from the world since God is neither one attribute of the world nor the world itself. However, in relation to the spirit of SSI-AL, God is nearer to SSI-AL than anything. A nearer relation does not need a bridge; a bridge cannot be built within a nearest relation. Therefore, he says,

The big is God, and the big is I. The I that is directly connected with God is big. We can make the whole universe wheel around the axis lying between God and the I. Hence, a religion that does not penetrate up to me, or a religion that could not make me confront God is not a true religion. The religion of I is religion.... The religion that speaks of any religious mediation many times is a fraud religion. That the Christ is the mediator means that there is no mediation in the world. The one aim of Jesus is to get rid of mediation.³⁵

Accordingly, religion acquires its meaning only when it does not rely on sacerdotalism and religious dogmas, namely, when all of which is conducting in the name of religion illuminates the reality of life's activity which is enacted between God and SSI-AL. Then, what is the reality of life? Ham discovers the principle of life in suffering(苦). He says,

Suffering is the fundamental principle of life. Life reaches to freedom through suffering.... One who hopes to avoid suffering and to enjoy only pleasure cannot avoid suffering forever. One who tries to love goodness and to hate evil cannot see goodness forever. As one who believes the Heaven as the place of no tears and no pain but only fortune and joy is the one who does not know what religion is, so one who believes the coming of the painless utopia after all battles is the one who does not know what history is.³⁶

Traditional Christian theology found the root of suffering in sin and has spoken that suffering would become vanished when sin is wiped out. Perhaps, this understanding is not a witness to reality but an idealistic inference. If there is no suffering in the actual world, the cosmic history would be stopped. In

³⁵ Ham Seok-Heon, "The Sorrow of SSI-AL," 6:89-90.

³⁶ Ham Seok-Heon, "Preface to the Fourth Edition," 30:25-26.

reality, no suffering, no future. Where there is no suffering, there is no vitality of life to come over it. Therefore, a place without suffering is dead; a lively world always has suffering.³⁷ For this reason, all lives are lamenting with the weight of suffering and yet uplifting themselves by overcoming it. Suffering is always by, and it is always being overcome. That's why history seems repeatedly to take the same suffering. However, that's why history advances in the screw motion despite its seeming repetition.

If suffering is the principle of life, and if the place in which life develops is history, and if history is “a dialogue of God and humanity,” the religious thought that focuses on the place of contact of God with SSI-AL should take its first witnessing spot as the suffering place of SSI-AL (minjung) in history. The bible also finds the clearest place of such a contact in the suffering place. The Cross on which “The true SSI-AL Jesus” is hung up is the symbol of the suffering.³⁸ Jesus' last lamentation, “Eli, Eli, lema sabachthani? (My God, my God, why have you forsaken me?),” is the exclamation that is shouted out in the most distressed historical place where God is revealed. The witness to the suffering of minjung (the poor people) is the testing criterion like shibboleth that divides a new religion from an old religion!

Old Religion vs. New Religion: Philosophy of Power vs. Philosophy of Love

“Established religions are going to become a fossil and to be buried under the stratum of history. For they persist in ossified creeds, interpret the cannon mechanically, and disturb the growth of life and become a tying rope of it.... Ossified, they cannot see the reality of life and rather make it as a heresy.”³⁹

Ham Seok-Heon characterizes an ‘old religion’ as that which becomes “the slave of the ruling system,”

³⁷ Whitehead, *Religion in the Making*, 155. Whitehead considers the cosmos as the place where evil is inevitable. Then, what is a religious answer to the problem of evil? The traditional Christian dogma understands the Kingdom of God as the painless place, namely, the place of “the isolation of good from evil.” On the contrary, Whitehead suggests that “The Kingdom of God is... the overcoming of evil by good.” Now, where is the place that can be called the Kingdom, a Kingdom of joy and justice, and truth and peace? Is it the good world without evil, or the world of overcoming evil by good? Perhaps, the answer to this question does not depend only on the ethical aesthetics but also on the worldview. Indeed, the answer depends more on the view of the cosmos: a dualistic view of nature-supernature, or, a relational view on absolute-relative, infinite-finite, eternal-temporal pairs. Ham Seok-Heon and Whitehead must be with the latter.

³⁸ Ham Seok-Heon, “Let's Look Forward,” 4:276.

³⁹ Ham Seok-Heon, “Resistance,” 2:125.

boasts of “old traditions,” and regards science as an enemy for compelling its mythical accounts.⁴⁰ Why is a religion getting old? It is because the religion is “operating by the philosophy of power” and therefore acting as “a fraud religion” indulging in power and pleasure.⁴¹ Then, why are established religions “kneeling down to the heresy, which worships power, and addicted to the lewdness by opening up their skirts”?⁴² It is because they are blind to the discretion of purpose and therefore caught in “the character of this passing world, the power and horror.” For this reason, churches have become an “owner or enjoyer” rather than “organizer or pathfinder.”⁴³ Such decay of religion causes the depravity of civilization, in which “the communal recession is called morality, the communal sloth is called peace, and the communal corruption is called order.”⁴⁴

Also, a religion that is indifferent to the recovery of the depraved civilization destroys itself in losing the vitality in its religious nature. By and large, the symptom is three. The first is the retardation of mind. Although “new wine must be put into fresh wineskins” (Lk. 5:38), the old religion adheres to dogmas and paralyzes its mind. This religious literalism devotes its faith to the husk of religious life and suicides by forsaking the reality of history. This mind intensifies otherworldliness because it lost its beauty in this world.⁴⁵ Second, the self-stultified religion could not bring up the spirituality of people in it. It does not dedicate the mind of “wisdom, justice, judgment, and equity (Proverb 1:3)” to the altar of history and yet produces immature believers, who never realize “the obligation of life and the purpose of history.”⁴⁶ Third, losing a right direction of religious mission, it surrenders to custom and institution and furthermore becomes violent for itself in order to reinforce them. When religion has been depraved like this, civilization kneels down before the philosophy of power and despairs of its future “as if a boatman

⁴⁰ Ham Seok-Heon, “The Awakening of a New Nation,” 3:141.

⁴¹ Ham Seok-Heon, “On Peace,” 12:35; “Twelve Baskets,” 3:141.

⁴² Ham Seok-Heon, “Religion and Politics,” 2:87.

⁴³ Ham Seok-Heon, “Lecture Four on Hebrews,” 2:87; “A Way of New Life,” 2:221.

⁴⁴ Kim Young-Min, *On Friend* (Seoul: Hankyore Publishing, 2008), 198.

⁴⁵ Ham Seok-Heon, “Religion in a New Age,” 14:51.

⁴⁶ Ham Seok-Heon, “New Commandment,” 15:52-53.

afflicted long with the furious wind and waves throws away his oars and sprawls out for a momentary peace without thinking of living or dying.” This is a phenomenon that disappointed life becomes reactionary when it is tired out with an old religion.⁴⁷

The necessary in this situation is a “new religion,” which renews itself for the fulfillment of its vocation, “a revolution against the old mental order.”⁴⁸ The new/renewed religion is “to recover its heavenly-given title” and “to keep observing, teaching, and judging its time.”⁴⁹ For this mission, requested are two things: “a new synthesis of thoughts” and “being a companion with minjung.”⁵⁰ For the former, escaped from “power and horror,” the new religion should launch “a philosophy of love” to see the world of compassion and gratitude. For the latter, it should take off its privileges and become a friend of minjung in order to save itself and minjung. Thereby, the new religion aims “a religion of purpose for the redemption of the whole.” Indeed, for Ham Seok-Heon, the new religion focuses “purpose” and “the whole,” about which he says,

If there is the Heaven, it must be a place where the whole can come in. Where is the place the whole goes to together? What is redeeming the whole of sinners as well as the righteous and barbarians as well as the civilized? Which religion is the one that theists and atheists together believe and live in? That’s why I said about ‘purpose.’⁵¹

Ham understands religion as “the fight against evil in life.”⁵² A new religion is neither to adore a new religious founder, nor to make new dogmas and institutions.⁵³ It is a religion to fight against itself

⁴⁷ Ham Seok-Heon, “Religion in a New Age,” 14:68.

⁴⁸ Ham Seok-Heon, “The Awakening of a New Nation,” 3:141.

⁴⁹ Ham Seok-Heon, “Religion in a New Age,” 14:49.

⁵⁰ Ham Seok-Heon, “What I Wish to Buddhists,” 7:212; “A Way of New Life,” 2:221.

⁵¹ Ham Seok-Heon, “Preface to the Fourth Edition,” 30:23.

⁵² Ham Seok-Heon, “In the Beginning, There is a Word,” 21:223.

⁵³ Ham Seok-Heon, “A Letter to Hong-Dong,” 22:383. He says, “Jesus is not a founder of a religion, Christianity is not a religion. If you don’t want to disgrace Jesus with the name of the religious founder, you should not kill Christianity with an idea of its uniqueness. If Christianity is not a religion, do not speak of orthodox or heresy any more. You cannot come into the Kingdom with Christianity. You cannot come in there unless you have the kernel spirit.”

in order to be ever-renewing. However, how do we fight against evil? Everything in this world is connected with each other so that good and evil are not separate. As good is of the whole, so evil is of the whole.⁵⁴ Therefore, he finds the assignment for a new religion in a search for a new thought in consideration of the whole. The assignment is “to find the purpose” of history and the cosmos, “to penetrate the phenomenal world,” and “to stand up to the absolute.”⁵⁵ In order to fulfill this assignment, the new religion should be full of “compassion and gratitude” to save the whole.

The way for a religion to penetrate the phenomenal world is possible only by standing up to the absolute, and what is acquired through the struggle is ‘purpose.’ Ham considers this grasp of the purpose as “salvation.”⁵⁶ The salvation is to unite with God, and the union is to know the purpose of God. In panentheism, the whole universe is in God, and God is the Being who raises the whole universe. Accordingly, to know purpose is to know the divine purpose to save the whole.⁵⁷ The longing for the salvation of the whole is not a cheap sentimentalism. Rather, a religion, confined to an idea of individual salvation, is immature egoism.⁵⁸ Although Ham looks straight the tragedy of individual existence, he seeks its overcoming only in the salvation of the whole.

Ham’s thought has both of a cosmological width to involve the whole universe as connected with its ground God and an ontological depth to show the nature of life as a whole. Such cosmology and ontology offer a philosophical basis to the “universal world-consciousness,” about which he says,

Life is with the whole. The whole is life. Good is of the whole, so is evil. Therefore, the idea that

⁵⁴ Ham Seok-Heon, “A Meditation in Pendle Hill,” 15:28. Ham says, “Good is not owned by one individual but of the whole, so is evil. If good or evil is of individuals, we would not bother with it. However, in reality, it is not, for it is of the whole. When one steals a matchstick, the steal happens by the adherence of the whole humanity. Without mobilizing the whole, therefore, we cannot win evil. This is the time when we should think with the whole.”

⁵⁵ Ham Seok-Heon, “Only Thinking Nation Can be Alive,” 5-109-10.

⁵⁶ Ham Seok-Heon, “An Asking for Human,” 25-385.

⁵⁷ Ham Seok-Heon, “Jesus’ Non-violent Struggle,” 16-19. Ham says, “Where is God in this world? In the whole! That whole is neither of I, nor of you, nor of someone, nor of most people. It is consistently of the whole. There revealed is the purpose of God.”

⁵⁸ Ham Seok-Heon, “Preface to the Fourth Edition,” 30:22. Ham says, “I have no interest any more in a religion that justifies and selects only believers as the people of Heaven and yet is pleased to see unbelievers put into the fire of Hell.”

good is prized, and evil is punished is merely an expedient teaching for children, not a truth.

Good and evil are connected with the same root. Therefore, to root out evil is impossible without killing good.... That's why Jesus says, "Don't pull the weeds, you may root up the wheat with them. Let both grow together until the harvest." There is no more benevolent lesson than this."⁵⁹

Nonetheless, Ham's religious universalism does not ignore the importance of practical concreteness. His idea supports at once both of speculative generality and empirical efficacy. For him, the religious life is to be a "seed" perishing in the reality of faith for the whole, not a "bead" holding brilliant abstraction with sophisticated speculation.⁶⁰ Being a seed is a concrete matter. The concretion is a direct and actual way to reveal a religious truth. While universality in the physical world must be abstract, says Ham, in religious practices "the most universal is the most concrete."⁶¹ As if the Heaven is the place for the salvation of the whole and yet contained in "a mustard seed," to grow an intact seed (SSI-AL) that realizes the purpose of salvation and liberation of the whole, this is the aim of the adventure of ideas that he carries out.

Conclusion

Ham Seok-Heon's idea is synthetic and critical, intuitive and rational, and abstract and practical. Having passed through critical periods in the modern history of Korea, he needed a creative synthesis of two traditions of east and west for reaching "a brilliant light of life."⁶² His struggle is to fight against old idols. To break ideal idols of the invisible superstition is 'necessary' for a religious thought to open a new

⁵⁹ Ham Seok-Heon, "What is University?" 3:269.

⁶⁰ Ham Seok-Heon, "Religion in a New Age," 14:20.

⁶¹ Ham Seok-Heon, *A Korean History from the Perspective of Purpose*, 30:51.

⁶² Ham Seok-Heon, "A Philosophy of Everyday," 13:72. He says, "Religion and philosophy do not separate. Both seek the Absolute. When we trace back philosophy, we could reach belief; if we have a true belief, there must be philosophy out. A religion against philosophy, religion of blind faith, is a superstition. Likewise, a philosophy against religion, mere speculation and theory without a brilliant light of life, is empty work."

era, and to break material idols of the visible power is 'sufficient' for it to evince its religious meaning and value. Ham wants to break these two idols and to make a sufficient and necessary condition for a thought that can mobilize the whole humanity. For this, he establishes a panentheistic worldview in which "presaging dreams and astral premonition" could be starring.

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The Idea of Process Education in Whitehead's Philosophy of Organism

LI Fang (Zhanjiang Normal University, China)

zjjyyjy@126.com

Abstract:

Education in the thought of process philosophy is called process education which is defined as a process of reproducing creative social culture, cultivating people's unique and complex events and activities, and promoting innovative construction. The intrinsic qualities of Process Education are organism, creativity, and integration, entailing connotations of creative education, integrative education, life education, ecology education, the subject of education, education process, education practice, and learning environment. Whitehead's *the Aims of Education* and Cobb's *Process Theology* are the master pieces of the idea of process education.

Keywords: Process education; Whitehead; Cobb

The idea of process education was created by British philosopher and mathematician A. N. Whitehead (1861-1947), the origin of which could be traced to progressive education of John Dewey. Whitehead's thought of process education could be found mostly in his master work *the Aims of Education* of 1929 which includes six parts, namely the aims of education, the rhythm of education, the rhythmic claims of freedom and discipline, technical education and its relation to science and literature, the place of classics in education, and university and its functions. Whitehead's thought of process education is commended as "New Education" by Chinese scholar Zhang Renjie (Zhang & Wang, 2002). Whitehead's idea was inherited by John. B. Cobb, Jr. (1925-), a renowned process philosopher and director of the Center for Process Studies, who had systematically discussed its intrinsic quality and connotations, and had verified the idea of process education through practicing it in some American schools (Li & Lu, 2005). Furthermore, David Griffin and Ronald Phipps of the Center for Process Studies also had conducted research on process education. In Nov. 1st, 2005, Professor Cobb was invited to attend the founding ceremony of the branch office of process education at Zhanjiang Normal University of the Center for Process Studies, during which he delivered a speech entitled "process education" to the teachers and students of School of Education Science at Zhanjiang Normal University, elaborating on Whitehead's philosophy of process education systematically and specifically (Cobb, 2005).

China has paid great attention to research of process education regarding to China's implementation

of New Curriculum in her basic education during the past decade. The concepts of generating, innovation, interest, capacity, social real life, student-centeredness, subjectivity, integrative curriculum, process and method, emotion and attitude and values, inquiry, integrative activities, and experience, accord

Li Fang is a Distinguished Professor at Zhanjiang Normal University. He is the standing vice director of the process education study branch of the Center for Process Studies located at Zhanjiang Normal University, the standing member of the National Instruction Study Committee, and the member of the National Curriculum Professional Association.

with the ideas of process education. Nonetheless, neither Whitehead nor Cobb gave a clear definition to process education and specify its connotations. The author contends that education in process philosophy is process education which is a new educational concept. The educational practice guided by process philosophy is process education practice. Process education is constructive post-modernism education idea, which is similar to constructivism but possesses its uniqueness.

Perceiving Essence of Education through Process Education

Whitehead's process philosophy is also called organic philosophy. It has absorbed many achievements of natural science, e.g. Theory of Relativity and Theory of Quantum, Life Philosophy of Bergson, and Emergent Evolution of Alexander, claiming that the world is an integration of myriads of events, and a live process of creation and evolution. Events constitute the basic elements of the world, integrating time and space. The universe is the field of events. The events are correlated and fluid, namely, they exist for only a certain time and will not reappear. Whitehead deems that organism consists of primitive organism and complex organism. If we perceive atom and electron as primitive organism, then molecule is a complex organism comprising primitive organisms. The primitive organism is the smallest unit of the universe, which itself is an active tiny universe. Organism is not a kind of material substance, but a structure of activities that are creative evolutionary. There are two approaches of organism activities: vibrant space activity and vibrant organism deformation. The origin of the world is a process which in turn is reality. The world is not composed of myriads of substances and ideas, neither substance nor spirit, but various engaging and interactive events and activities. The universe is active and live mechanism constituted by interrelated events, not material substances (Li & Lu, 2005). Process exists within event and interdependence of events. The events are integrated into more comprehensive, mutually inclusive and influential community that could be viewed as organism closely correlated to life phenomena. Life phenomena demonstrate themselves as activities which introduce novelty (Whitehead, 2004). Accordingly, the intrinsic characteristic of organism is activity which presents itself as an ever creative evolutionary process. The creative evolution of the world is emergence of various existing matters in reality. The existence of matter is constituted via its emergence (Whitehead, 2004). The

process of emergence is adventurous and creative, enjoyable and artful (Qu & Wang, 2004). This is the principle of process (Whitehead, 2004).

Cobb pointed out that Whitehead found “physicists continued to use substantialist and individualist models in their efforts to explain the quanta into which their experiments had analyzed the atom. Both the model of ‘particle’ and the model of ‘wave’ presupposed substantial individuals” (Cobb, 2005). Whitehead then suggested that “the units of reality be understood, instead, as momentary integrations at each locus of the field in which the event occurred. Ultimately this field is the whole of what has been as it is relevant to what is taking place there. No substance, no ether, no pre-given space underlies the event” (Cobb, 2005). “Whitehead believed that human beings are ultimately composed of events. This is true of human bodies. We are made up not of material substances but of physical events..... These are all complexly related to one another and to their environment.....animal bodies are so constituted that events throughout the body significantly influence, and are influenced by, those in the brain. Also the myriads of neuronal events there give rise to a single, vastly richer, unified animal experience. This experience is also an event.....This integration involves much that is not present in any of the events that are integrated.....Integration always introduces novelty. It is always an act of creativity. We could also talk about the many differences among events at different levels.....the whole movement of cosmic evolution as directed toward bringing differences into being, and especially new levels of organization capable of greater inclusiveness and intensity of experience” (Cobb, 2005).

To conclude, process philosophy has three intrinsic features, namely organism, emergence and creation, and integration. It is a new perspective to study the essence of education through ontology and organicism of process philosophy. From the late 1970s to the beginning of 1990s, most Chinese scholars investigated the essence of education in the perspectives of educational functions, e.g. regarding education as productivity, believing that education promotes social productivity through cultivating talents and enhancing people’s quality. Hence the essence of education is productivity. According to process philosophy, education is neither mental nor material; neither is it superstructure nor productivity and relation of production; It is neither science and culture nor art. What is the essence of education then? Inspired by process philosophy, the author describes the essence as process of continuous activities exclusively cultivating talents, reproducing and innovating social culture, promoting creative evolution of mankind, which is also the author’s tentative conceptual definition for “process education”. In process thinking, education is a live organism with events serving as its basic element. Hence, process education has three innate features of organism, creation and emergence, and integration as well.

Connotations of Process Education

In accord with the above study upon the essence of process education, the author delineates the connotations of process education as innovative education, integrative education, life education, ecology

education, subject of education, the aims of education, the rhythm of education, learning environment.

Innovative Education

Based on Alexander's Theory of Emergent Evolution, Whitehead proposed an emergent principle of world creative and evolutionary process, unveiling creativity during process of emergence and generation. The process principle determines the creativity of process education. Firstly, generating is creation. In the perspective of process philosophy, education is also an organism. Education events and activities such as curriculum design and implementation, taking class, teaching and learning activities, creation of learning environment, education evaluation, and education administration are organic cells of education, possessing emergence and creativity. Secondly, process transformation is creation. Education activity is a process of emergence and creation through upgrading from one phase to another and transforming from one process to another. Thirdly, transcendence is creation. Whitehead's idea of innovative education is established on the basis of criticizing the petrified ideas of modern education, transcending the latter. Specifically, his idea is a criticism towards serious problems and ossified educational thoughts. He suggested breaking traditional education paradigm and the current education orders so as to realize innovation in teaching and learning. Moreover, he criticized the curriculum contents and knowledge ossification of the modern knowledge-centered education, as well as too many academic disciplines and isolation among disciplines. He advocated establishing a mode of intelligence-centered education by reducing curriculum and arranging and organizing education contents in the light of real life to achieve curriculum and knowledge innovations.

Integrative Education

Process education endorses the following seven kinds of integrative education. The first one is an integration of the phased school education and lifelong social education. Process philosophy views education events in a holistic perceive that education penetrates almost the whole life of each individual. The journey of life per se is actually the whole process of receiving education, including phased school education and various ways of social education. Put differently, school education is merely a part of holistic education throughout the whole process of people's life, that is, any form of out of school continuing education is a part of the whole and holistic education in life. School education and continuing education are inseparable and organically integrated. The second is to integrate influential factors and environment in school education with those in social education. The education environment in school setting is just a component of the whole education environment. Education activities are results of mutual interactions and conciliations among every component of its surrounding environment and that there is no real education if there is no interaction with surrounding environment as various education factors have intrinsic connections and integration. The third one is an integration of general education and vocational education. Whitehead deemed that there are both differences and connections between general education and vocational education. "Center of special interests grows in general education curriculum. Similarly, discipline's external associations help students emanate their thinking

outwardly.” “Technical education is not sufficient without liberal arts education and there would be no liberal arts education without technical education..... education should cultivate talents of both comprehensive learning and technical skills” (Zhang, 2004, p.92). The fourth is an integration of general education and professional education. The fifth is an integration of nurturing curiosity and cultivating creative activities (inquiry, curiosity and questioning, research, summarization). Integrating curiosity and creative activities is similar to Confucius’ thoughts, namely interests and hobbies, integration of music learning and inspiration, thinking scrupulously, reflection, learning and reflecting, seeing and reflecting, consciously reflecting. The sixth one is an integration of interdisciplinary education, integrative knowledge (integrative curriculum) and integrative learning, conciliation and unification of general education and professional education, conciliation and unification of all disciplines, integrative education, interdisciplinary learning. This integration is essential because social problems in the real life are mostly complex and integrated problems, the solutions of which need integrative and interdisciplinary knowledge, not just knowledge in one single discipline, e.g. design of bridges and buildings. To solve these real life problems, we need to break the boundaries of various disciplines and conduct interdisciplinary learning and research. The last one is an integrative education of practical activities.

Life Education

Studies on process education originate in organism and life, or organism philosophy. Organism and life are correlated. “Life is deposited in the tissues of each single live cell and that of brain” (Whitehead, 2004). Taking education as organism, it is filled with life, and learners are the subject.

Whitehead accepted the life philosophy of Bergson and thus constructed his organism philosophy, and proposed education of life. British educationist Lindsay (1829-1952) said, what Whitehead pursued is “education ought to be of vitality” (Whitehead, 2004). “Process of intellectual development consists of numerous organic tissues of cells” (Whitehead, 2002). In his Aims of education, Whitehead emphasizes the vitality of education on many occasions, like “knowledge should be of vitality, never rigidify it”. I sketched the process of education from infant to the age of about sixteen and half, with focus on the rhythmic movement of life (Whitehead, 2002). The vitality of process education is manifested in the continuum of nurturing human beings. It involves warm caring, vivacious activities, zest of learning, and flourishing campus life. It bares great resemblance to the viewpoints of Lao Zi. In the past decade, scholars in China did numerous research on life education. Nowadays learners are gaining autonomy in classroom. Great achievements are made in the education of life intelligences, of wellbeing, and of physical and mental health.

Ecology Education

Process education highlights ecology education, which facilitates learners caring about nature and society, cherishing life, and getting out of ecological crisis. It promotes harmony and cooperation, coexistence between man and nature. It proposes ecology ethic and wisdom aiming at the harmony of

man and nature (Zhang & Wang, 2002).

The subject of education

On the basis of organism philosophy, process educationists inquire the subjects of education from teacher-learner and intersubjective relation and communities.

As far as I am concerned, relations in education include teacher-learner relation and that among learners, and the impetus of growth comes from the following contradictions of relations:

a. Contradictions of teach-learner interaction constitute the impetus of education. Teachers represent the external cause, and learners represent internal cause, principal aspect of the contradictions. Learners' growth is the ultimate goal of education, therefore, learners work as the subject.

b. Inconsistence between learners' actual level and fresh needs is the internal contradiction, from which generates the major impetus for development.

c. Contradictions between individual learner and his/her peers co-work with other factors in the educational context (Cobb, 2005).

In the history of education, J. F. Herbart and N. A. Kaiipob insist that teachers as the subject of education, in which learners revolve around teachers. It is the opposite for J. Dewey. He argues that learners should be the center of education and they ought to learn by doing in social context and real life situation. Process educationists inherit the viewpoints above and insist that any school event should focus on learners. They hold that education taking learners as the subject owing to Dewey's ideas and the progressive movement (Cobb, 2005).

Aims of Education

Process education aims at facilitating learners' self-development. A.N. Whitehead argues, "learners are energetic and the aim of education is to promote their self-development" (Zhang & Wang, 2002). "Self-development is of great value" (Whitehead, 2003). He insists the instinct of development comes from within. "I discover because I do. Discipline comes from self-regulation and achievements the reward of initiative" (Whitehead, 2002). Cobb deems that teachers should view learners as individuals capable of independent thinking and encourage them expressing their own mind. Plato shares the same idea. It is what education for. Cobb explains that fresh experience should be drawn upon for the sake of development and new elements should be incorporated into learning and life experience. It indicates integration of activities of diverse level involving every single part of the body (Cobb, 2005). And the process of integration indicates innovation and self-development, in the light of which, we stress the development of learners' intelligences and explore its process and principles. And we advocate liberal education with the hope of nurturing well-educated and harmonious individuals, who know and care and can do something. It is consistent with Plato's reason, passion and desire (Fang, 2007). And it is agreeable with Confucius's principles of elicitation, reflection, etc.

The Rhythm of Education

A. N. Whitehead advances three stages of the rhythm of education: romance, precision, and generalization. It indicates education should integrate curiosity and innovative activities and thus lead learners onto the journey of exploring problems communities. It is elaborated in *the aims of education*. The rhythm of education is practice in schools in China.

In the light of the rhythm of education, teachers should focus on the following:

a. Propositions

Cobb says, a proposition is generally considered as facts that should be memorized. However, it is just an idea for us to think over. It is of vital importance for teachers to provide relevant ideas for further thinking. A proposition is an assumption, a kind of possibility. Teachers are supposed to motivate learners and they are to seek the truth themselves. “Their imagination is involved and developed during the process of active thinking and questioning” (Cobb, 2005). Propositions are to be offered to encourage learners’ curiosity and interest.

b. Solving actual problems

Solving actual problems denotes creativity. Cobb indicates solving actual problems should be incorporated into school system. Its significances are as follows: (1) with a clear purpose in mind, learners take the initiative; (2) learn practical knowledge in real life; (3) dedicate to the development of society; (4) enrich valuable learning experience; (5) develop cooperative spirit and other human virtues (Cobb, 2005).

c. Learning in practice

In practice, learners are given opportunities to integrate what they have learned with creativity. The mission of school is to open access to verify what have been learned and help learners build up experiences than just learning from books. Learning from books should be integrated with social life and environment and applied to solve actual problems. Therefore learners are exposed to diverse viewpoints, which help broaden their mind and enrich their knowledge.

Learning Environment

In his Process education, Cobb elaborates five types of learning environment. First, textbooks and classroom. Second, sensory organs and physical conditions. “Learners acquire experiences with sensory organs, which constitute first-hand learning environment” (Cobb, 2005). Autonomous learning bottoms upon particular knowledge from books, first-hand experiences, and physical conditions. Third, fellow community. Learners need to identify themselves as part of the fellow community and respect and support one other. Forth, educational institutions and social environment, which consists of educators, variety of people and events in society, from which individuals obtain the sense of belonging and responsibility. In such environment, individuals learn to be tolerant, and love to take responsibilities of the community, the nation, and the world (Cobb, 2005). Fifth, natural environment, in which individuals learn to cope with matters around them, to observe both the static and dynamic world in details, to get in touch with plants and animals, and to develop ecological interest and sense of belonging to the world

of nature (Cobb, 2005). Thus, individuals tend to protect nature in social symbiosis.

As far as I'm concerned, process education is developed systematically by Cobb, and scholars from the United States, China, Australia, India, and Poland. Process education written by Cobb is the representative work.

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Contrast and comparison between Xiong Shili's and Alfred North Whitehead's metaphysics and cosmology

LI Hengwei (Zhejiang University, China)

chlhwei@zju.edu.cn

Abstract

We endeavor to make a contrast and comparison between Xiong Shili's and Alfred North Whitehead's metaphysics and cosmology. Xiong and Whitehead both argues that the ultimate reality, or the actual entity, or noumenon, far from being a static and visible objects such as rocks, woods, atoms, quarks and the like, is a constant flux which is called as the great change (大化) by Xiong and the process by Whitehead. However, although there are some fundamental similarities between them in metaphysics and cosmology, they meanwhile differ from each other in many aspects. First, as far as the dynamics of change or process is concerned, Xiong puts forward a more systematic view than Whitehead; according to Xiong, the ultimate reality is an union and unity of two kinds of forces, namely convergency and divergency (or flurl and unfurl, or close and open) (翕和辟), Xiong believes that it is the two internal and integrated forces that bring about myriad phenomenon of the great change; because of the two productive forces of convergency and divergency being internal in the ultimate reality, the noumenon and its myriad manifestations are not in two separable realms, both of them are rather of non-duality. Second, when it comes to the relation of mind to matter, we think that Whitehead's ideas of the relationship between mind and matter is more acceptable than Xiong's. Xiong and Whitehead both argues that where there is matter, there exists mind, and that mind and matter are two aspects or dimensions of one and the same entity. In addition, Xiong often regards the force of convergency as a symbol of matter and the force of divergency as a symbol of mind, and claims that mind is superior and dominant over matter in cosmology. Being different from Xiong, Whitehead put forward a greatly

significant concept of prehension to reference to the within of any existence, whatever it is primitive and simple, and argues that the mind in human form just a higher and enriched version of the original within. In some sense, therefore, if Xiong might as well be called as a pan-psychist, Whitehead had better be called as pan-withinist. In our views, the pan-withinism is a better and more advanced idea than general pan-psychism. In conclusion, we feel like expressing that Xiong displays a stronger and sounder thought of the dynamics of change, and on the other hand, Whitehead, as for the relationship between mind and matter, gives out a more coherent notion in the modern context.

Eco-class: Harmonium and Creation

LI Sen (Southwest University, China)

lisen@swu.edu.cn

Abstract: Methodologically, it is meaningful to use the ecological principles and methods in teaching research to construct the authentic class. Eco-class is composed by teacher, students, events in teaching and environment. Eco-class subject, the relationship of the subject and environment are all contacted each other, which composed an integrated organism. There are three characters of eco-class: integrity, covariation and coexistence and three functions: sustainable development, system specification, growth promotion and the function of nourishment. In order to establish an eco-class to promote the harmonious class and to make the class creation, it is necessary to improve the relationship of the teacher and students, to built friendly class environment, to read the teaching materials creatively, to use the teaching technique appropriately, to balance the mutual development during the teaching process and to improve the evaluation system.

Key words: Class; Eco-class, Harmonious class, Class creation

Ecology is the scientific study of the relations that living organisms have with respect to each other and their natural environment. From the methodological perspective, it is meaningful to use the ecological principles and methods in teaching research to construct the authentic class. In 1932, Waller, who is an American educational scholar, promoted the term “ecology of class” in *The Sociology of Teaching*. Since then, many scholars began to discuss the meaning of ecology in education from macro perspective for establishing the framework of eco-class. But few scholars do the research form micro perspective. In order to let the class full of vitality, the article tries to explain the nature and characters of eco-class by micro perspective.

1. Connotation and characteristics of eco-class

1.1 Connotation of eco-class

1.1.1 Explanation of class and ecology

Class can be defined in broad and narrow sense. In broad sense, class can be understood as any places where learning takes place. In narrow sense, class should be limited in the school, and it is the place where the teacher teaches the students, and the students develop in their intelligence and ability. This article will focus on the narrow meaning of class.

Ecology was coined in 1960's, which referred to the relationship between living organisms and their

living environments, as well as the individuals in the environment. Living organisms and environment are the basic elements of ecology. Where there is no living organisms or environment, there is no ecology. The connotation of ecology can not be understand as living organisms who did not live in the environment, and can not be understand as the pure environment where there is no living organisms live in. As a result, ecology can be regarded as integrity of living organism and environment by connection of some relationship.

1.1.2 Ecology of class

Both the class of broad sense and narrow sense, they are all ecologically. Apart from the natural meaning of ecology and cultural meaning of ecology, there are specific ecological subjects and ecological environment. From the perspective of subject, teacher and students are the ecological subjects. As for the environment, there is objective class ecological environment, derivation class ecological environment and objective class ecological subject. In the ecology of class, there are various links between class ecological subject and class ecological environment, class ecological subject and other class ecological subject, which composes the organic ecosystem. According to the material recycling, energy and information transformation, the elements of the ecology of class interact each other to construct the framework of the class ecology.

1.2 Connotation of eco-class

Eco-class is a class which appeals the class to return toward nature, and it is a class which respect individual. Eco-class is a class which require harmonious and interaction and which is open and creativity as well as sustainable development. Eco-class can be regarded as a place for students' improvement and teacher development. Eco-class is an open class full of creativity and personality, which is neither the opposite of the knowledge class, ability class or wisdom class, nor the enemy of the present class; it is the new understanding of curriculum in modern area. Eco-class is the explanation of life view, development view and ecology view of new curriculum, it is the deconstruction and over beyond of the traditional class.

1.2.1 Eco-class is a student-center class

Students are the master of learning, which means that students should be the subject of the class. Student-center education admits that the student should be a thoughtful, conscious, emotional and desirable authentic human being. The essence of the student-center class is to promote the development of students by designing optimistic modern class and teaching activities. Eco-class requires teacher to follow the four principles. First of all, teacher should focus on all of the students. Secondly, teacher should promote the students' all-round development. Thirdly, each student should develop their characteristics individually. Fourthly, during the development, the students should base on the sustainable development.

1.2.2 Eco-class is a situational class

Ecology is linked to the environment, so the focus on the ecology is to improve the environment.

Philosophically, human being is a person who lives in the environment, which means that human being is person who lives in natural environment, social environment and interpersonal psychological environment. Class is the environment of teacher and student activities, so one of the tasks of the class teaching is to design a learning environment which can help students' development. Brown and Kleins believed that cognition is based on the situation. Because of the ignorance of the situational function of cognition, traditional education has hindered the students' development which is one of the educational aims. Eco-class can change this situation by creating teaching situation to transfer the daily activities into class teaching materials, to promote daily life experience up to teaching knowledge. As eco-class focuses the students, it can get to know the living activities of students by searching and seizing the problematic and creative materials, which can become wonderful curriculum materials to construct a situational class.

1.2.3 Eco-class is an experiential class

B· A· Cyxomjnhcknn said that in order to solidly grasp mathematics, students must learn mathematics with inner creation and experience methods. As a result, the key for learning is to guide the students to learn by experience, to probe by experience, to develop automatically by experience. The so-called experiential learning is learning through reflection on doing, which is often contrasted with rote or didactic learning. Experiential learning is related to, but not synonymous with, experiential education, action learning, adventure learning, free choice learning, cooperative learning, and service learning. While there are relationships and connections between all these theories of education, importantly they are also separate terms with separate meanings.

1.2.4 Eco-class is a cooperation class

Class is a group. Group motivation is one of the common ecological phenomena. Cooperation is the basic ecological character. To cooperate in the class is the basic social requirement, so it is the main activity form of knowledge probing and emotion exchanging. Cooperation can not only happen among students, it can also exist between teacher and students.

1.2.5 Eco-class is a class full of happiness

Happiness is one of the psychical situations. To feel happiness during the experiential learning is both the goal of educational aims and educational processes. Happiness can emerge when they succeed during their creation. Happiness can also come from the acceptance by the group. There are four function of the happiness in eco-class: to meet the need of curious, to meet the need of amusement, to meet the requirement of success and to meet the need of being loved. Eco-class requires the teacher to establish a happy and relax classroom environment to help students to merge into the class. As a result, the teaching process can be perfect by meeting the requirement of students' psychological need.

1.3 Characteristics of eco-class

There are three characters of integrity, covariation and coexistence.

1.3.1 Integrity

Eco-class is the integrity of different elements which are linked naturally. First, subjects of eco-class and environment of eco-class is an organic integrity. According to teaching and learning, the subjects of eco-class will change his knowledge structure and cognitive ability. The degree of changeability depends heavily on the nature of teaching materials, as well as the way to use the teaching materials. Second, eco-class is an integrity organism of the interaction among subjects of eco-class. While teacher fosters the students, the students will change the teachers as well.

1.3.2 Covariation

The elements of eco-class will interact each other. One element change will let the other element covariate as well. Ketcham's investigation showed that the change of the color in the classroom will affect the effect of learning significantly. In eco-class, the emotion of teacher and students will covariate too. If the teacher presents the class enthusiastically, the students will be encouraged in the class. On the other hand, if the students' spirit is listlessness, the teacher will also be covariate into lower energy during the class.

1.3.3 Coexistence

As for existed form, teacher and students coexistence in the same eco-class, which means teacher's existence rely heavily on the existence of students. For example, the value of teacher partly depends on the development of students. Without the development of students, it is impossible to realize teacher's value. That's means if there is no development of students, the teaching activity will have none sense. There are two forms of coexistence: mutualism and parasitism. Mutualism is a positive reciprocal relationship between two species. Through this relationship both species enhance their survival, growth or fitness. To a certain extent the relationship is more a reciprocal exploitation rather than a cooperative effort on the part of the individuals involved. In short, mutualism refers both organisms benefit. Parasitism is a type of symbiotic relationship between organisms of different species where one organism, the parasite, benefits at the expense of the other, the host. On the other hand, Parasitism refers that one organism benefits and the other one is harmed

In a word, eco-class is a harmonious class which appeals the class to return toward nature. Eco-class is a creative class which respect individual. Eco-class is an integrated, opened and developing class as well. In the ecological chains, environment, teacher and students and curriculum interact each other to transfer and change the materials and information. During the transfer and change, the class will appear its powerful life force and jumps to be the new hot spotting of the field.

2 Structures and functions of eco-class

The structures and functions of eco-class are interrelated and causal, so the functions of eco-class can be powerfully disclosed through studying the structures of eco-class. Therefore, eco-class can be studied by making use of structural ideas and methods, so it is the structure of eco-class set up as a research object and a research field.

2.1 The structures of eco-class

2.1.1 The formative dimensions of eco-class

Teachers, students, and classroom environment are the basic formative elements of eco-class, and the ways of them interacting in are what is discussed about eco-class. Among these three elements, the classroom environment is a combined notion, as in a special context the teachers and the students are part of it. The elements of the classroom environment are an important research content of classroom environment. Classroom environment consists of three aspects at least, that is, physical environment, institutional and cultural environment and spiritual environment, all of which are necessary to construct well-structured eco-class. Perfect physical environment is the basis of nice eco-class; active and healthy spiritual environment is what good eco-class seeks for; institutional environment, between the physical environment and the spiritual environment, emphasizing both science and humanity, guarantees the perfect eco-class, since it directs and regulates society and individuals, indicating rigid rules of social actions

2.1.2 The essence of the classroom ecologic structures

Two premises of methodology must be determined before doing research on the structure of eco-class .One is to exploit structural ideas to understand the relationships of classroom ecologic elements through the thinking of relation rather than entity. The other is to utilize the process ideas to disclose the interactions of these elements and understand the classroom in the dynamic view rather than static view. First of all, in the view of relation thinking, the structure of eco-class is not simply added up by teachers, students and classroom environment. Nor is it to describe or explain the three elements separately to study the structures of eco-class, but to find the internal laws of them with the method of entirety and relations. The relations which the structure discloses are stable and regular ones whose premise is the entirety and relativity of eco-class. The structural relations are mainly represented as intersecting structures, namely, teachers and students interact and develop via the medium of classroom environment. Teachers and students converse and dialogue about a certain problem or some topic and therefore, bring about changes in eco-class. As a result, new eco-class comes into being. Secondly, looking at the classroom ecologic structures in the view of process, the structures do not always stay the same, but change constantly as the ecologic elements change. In this sense, it is consistent with the entirety and relativity. Nevertheless, what is focused on is the changeability rather than stability, if looking at the structure of eco-class from the point of process and dynamic. Thereby, two conclusions can be drawn: one is that the structures of eco-class are represented as two relation structures, that is, the structure of “the relation between teaching and learning” and that of “the relation between teacher and students”; the other is that this structure is a dynamic process rather than a static structure. The essence of the classroom ecologic structures is that it is the structure of the relations between teaching and learning which is dynamically developing and the structure of the relations between teacher and students presenting in the process of teaching and learning. These two structures are the relations between form and content, the former of which is the internal structure of

eco-class while the latter is the external structure.

2.1.3 Main types of the structures of eco-class

The structures of eco-class have different expressive forms in practice, and different types of structures have some characteristics in common. According to the differences between the structures of the relation of teaching and learning, the structures of eco-class can be divided into instructional eco-class, constructional eco-class, and co-constructional eco-class. In the context of instructional eco-class, the teacher, as the core of learning, designs tasks for all the students. He always pays attention to what should be informed to the students and the corresponding results. In the context of the constructional ecology, the relation between different elements changes frequently. Its focus is paid on the students and the emphasis is on students' thoughts and methods. Students are encouraged to ask each other questions and show their ideas. Co-constructional eco-class is an ideal kind of ecology, in the classroom of which teachers and students are both learners. The focus is on regarding the class as a learning community and the task is to create knowledge and set up the standards of judging knowledge. When they have offered interrelated resources, a wide connection is built among the class, and the connection has an important significance to the connections of the other sources of knowledge in the world.”[5]

The differences in the structures of eco-class implicate not just the changes of the forms of classroom structures but the differences between teaching ideas. Under the background of the globalization nowadays, the teaching ideas of different countries are exchanging with and impacting on each other. We are confronted with the contradictions between tradition and modern, foreign and native, one and multiplicity and how to choose is thorny to deal with. Nevertheless, from the angle of constructing eco-class, richness, multiplicity and diversity are what perfect ecology needs for evolution. So it is not troublesome to face so many types of structures because just owing to these diverse structures, the different functions of the classroom ecologic structures can be brought into play.

2.2 Functions of eco-class

When faced with such issues as how to improve the classroom efficiency, how to make the classroom more fascinating, and how to make our class much livelier, etc., we are stimulated to seek and explore the good functions of eco-class. Concretely, eco-class holds the following functions :

2.2.1 Functions of keeping sustainable development

The strategy of Sustainable development is one of the important choices of humans. It is a necessary choice of social development as well as a great strategic aim for humans to achieve. The sustainability of individual development mainly contains the following: the harmonious development of mind and body, retaining the curiosity of exploration and the desire for knowledge, enhancing the ability of finding and solving problems in different circumstances, of cooperating and conversing with others and the responsibilities for his nation, motherland, and society. The sustainable development of individuals depends on education, but it is, of course, classes that take the responsibility to realize it. The functions

of sustainable development of eco-class are performed in three aspects: the first is to improve the sustainable development of the subject; the second is to facilitate the sustainable development of the classroom itself; the third is to enhance the sustainable development of society.

2.2.2 Functions of regulating the system

Classroom is a small living environment made up of teachers, students and environmental elements. This small environment has a direct impact on teachers and students' behavior, recognition and moods. As soon as coming into being, the small living environment plays a role in regulating the ecologic subjects in its own right. The system-regulating functions of the ecology contain two connotations. Firstly, eco-class, as a system playing a role, plays an effect mainly on the teachers and students who participate in class, embodying its role of regulating the teachers and students' actions in affecting their ideas and behaviors deeply. Secondly, eco-class is distinct from the nature ecology in the aspect that good eco-class can't come into being in itself but needs the combined power of country, society and others as such, representing as their regulating the runners of a school. But, the playing of the role in regulating the system relies on the cultural environment of classroom rules because the classroom rules offer a normative living environment for the classroom ecologic subjects and regulate the subjects' behavior.

2.2.3 Functions of furthering development

The classroom learning atmosphere is the environmental impetus of eco-class subjects. The interpersonal relationships in classroom and the class community are the social environment for class ecology subjects. Both the environmental impetus and the social environment function as impetus for the classroom individuals.[6] In the classroom as a society and in the course of teaching and learning, interpersonal relationships can be established among the teachers and students and on the basis of the relationships are the class communities built. Once those communities are formed, they will remain relatively stable and become the main ecologic communities. These communities and the teachers and students living in them make up of a kind of ecologic system, which becomes the important environmental factors affecting the growing of the teachers and the students and the carrying out of teaching and learning. The dialogues between teachers and students, actions of teaching and learning, and even the development of the students all happen and come into reality in this ecologic community.

2.2.4 Functions of nourishing the class subjects

The aim of constructing eco-class is to create ecologic classroom and the special role of ecologic classroom is to have an active effect on teachers and students. The ecologic classroom plays its role like an eco-park. In this eco-park, important resources are curriculum and teaching materials which fulfill the functions of nourishing teachers and students. On the one hand, the characters of ecologic teaching resources decide on the direction of the development of the ecologic subjects, for example, in ancient China, talents that curriculum and teaching materials whose contents were mainly the Four Books and the Five Classics cultivated were feudal officials serving the feudalistic society. On the other hand, the process in which the classroom ecologic subjects process, deal with, digest and absorb the ecologic

teaching materials determines the transformation and the transformative extent of the information and the energy which is contained in the ecologic materials. This process makes the probable value of the teaching materials to develop the students gradually come true.

3. Practical Strategies of Eco-class Construction

Eco-class construction should not only concern its theoretical analysis and framework, but put further emphasis on its practical operation and application. We put forward the following practical strategies on eco-class construction.

3.1 Establishing favorable teacher-student relationship

Favorable teacher-student relationship is the direct factor for harmonious and ecological classroom atmosphere, where students' enthusiasm in learning will be aroused. In favorable teacher-student relationship, students have respect and trust for teachers and transfer the love for teachers to the subjects they instruct. Teachers' utilizing their "authority" and disregarding students' personal dignity will lead to the tension in teacher-student relationship, which goes against student development. What we consider significant for establishing favorable teacher-student relationship is as follows: Firstly, attenuate teacher authority. Teachers should play the more part of "consultant" and "mentor" instead of educating students by "giving orders". Better give practical guidance to students by "vectoring them". Secondly, bring into play students' subjectivity, and establish good inter subjectivity. In previous teaching, teachers stress too much their own subjectivity and ignore that of students. In fact, the establishment of good inter subjectivity among teachers and students requires moderate exerting of both teachers' and students' subjectivity. Thirdly, Have respect for students. Psychological research indicates that everyone has the need for respect. Only when students feel the respect and trust from teachers, will they open up their mind to teachers, converse with teachers and exchange ideas with them. Therefore, in some sense, respect for students is the foundation of establishing good learning atmosphere.

3.2 Creating good teaching environments

Teaching environments includes external and internal environments. External environments refer to any possible factors out of the main teaching subjects that impact teaching, e.g. student number, classroom setting, sunlight sufficiency etc. Internal environments refer to teachers as the subject of teaching and internal psychological factors that impact teaching activities, e.g. emotion, attitudes and values. Ecologic classroom is the virtuous circle one, where human and environment have interdependency. In such a class, creation of harmonious, joyful and human environments facilitates students' personality emancipation in the relaxed and natural atmosphere, herein, fully revealed is life vitality in such a free and enterprising atmosphere. To create good internal environments, teachers should approach students equally, converse and interchange with students. In this communication, teachers are bosom friends of students, wearing the smile, integrating into the students' inner world of heart. Teachers are friends for student development, who organize the class based on presetting and

class generation, brimmed with tolerance, understanding, expectation and appreciation for students. Teachers become learning companions of students, who offer advice and encouragement to them whenever they have difficulties or bewilderments.

3.3 Interpreting curriculum and teaching materials creatively

Teaching is the process of interaction among teachers and students, teachers and teaching materials and among students and teaching materials as well. From the perspective of ecologic education, teaching materials are not only the “medium” of teacher-student interaction, but should be the “interlocutor”. In such a view, value of knowledge presented in teaching materials is not negated, neither the teaching materials as medium and tools for teacher-student interchange and conversation. What the view emphasizes is that teaching materials are not something negative, passive and static, but something that can positively and initiatively play their roles. Constructivism thinks that learning is not teacher transmitting textbook knowledge to students, but students actively acquiring the meaning of textbook knowledge by apperception. Learners should not be passive receivers of information. On the contrary, they actively acquire the meaning of teaching materials. Only when students acquire the meaning from textbook knowledge, do they grasp the textbook knowledge in a true sense. Undoubtedly, meaning is not acquired from transmission, but constructed initiatively by students themselves. Such construction is essentially completed in the process of student-teacher interaction, student-textbook interaction and student-student interaction. If we look upon the textbook as “the Bible” without interpreting it creatively, we will hurt students’ initiative and motivation, and restrain the development of their ability. Therefore, in classroom teaching, teachers should guide students to interpret teaching materials creatively, to raise their own ideas and generate new meaning from them.

3.4 Using instruction media appropriately

In classroom teaching, appropriate use of instruction media helps enhance students’ perceptual knowledge and text comprehension. New Curriculum advocates full use of and development of instruction media for the sake of creating a perceptual environment for students, so that their perceptual knowledge can be enhanced and they can better comprehend textbooks. However, teaching media cannot be casually used, which will otherwise affect class effect. The following principles should be abode by in selection of instruction media. Firstly, principle of purposiveness. The purpose of teaching is the essential starting point of teaching activities. Selection of any instruction media must comply with and serve for its starting point. Secondly, principle of scientificity. The fundamental purpose of using instruction media is help students learning better. Students as the subject in learning activities have their own traits. Therefore, teachers must know the traits of students’ thinking development when they select media so as to achieve the expected class effect. Thirdly, principle of economy. This requires the balance of cost and effect in the selection. Strive to get the most effect in the least cost, to get students spend fewer time and energy to achieve more knowledge and skills. Fourthly, principle of complementarity. Alternately use more than two kinds of media to complement advantages. Principles

of media selection are the basic requirements in selecting and using media. Following these principles, appropriately selecting and wisely using instruction media will help achieve desirable teaching and educational effect.

3.5 Laying emphasis on interaction in teaching process

In traditional classroom teaching, teachers control everything in class, dominating the class while students have few chances to speak in class, and there are even fewer chances for teachers and students to communicate and interact with each other. We confine our understanding to the concept that “teaching is the process of special cognition”, in which the concern is “still the knowledge increase”. [7] Disguisedly, teaching process is equated with knowledge transmission and teacher-student relationship is simplified as that of “teaching” and “learning”. Teaching seems the storing behavior, where teachers become depositors and students as safeguards. Teachers, instead of interchanging with students, speak out their own opinions, let students patiently receive, remember and constantly store information, as a result, teaching becomes a static, lifeless and predictable activity. Eco-class holds that cramming method in teaching should be broken. Teaching should help arouse students’ subject consciousness, positivity, initiative, and participation, in the environment of which, teachers interact with students and students interact with one another. Such interaction is accomplished through language communication, information exchange and spiritual contact. In the way of conversation, question and answer, discussion, and cooperative learning, teachers bring students’ thinking ability into full play, turning the teaching process into the process of teacher-student active interchange and common development, where students, through the interchange, gradually realize the deep meaning of teaching contents, relationship between the individual and others, grasp interpersonal communication skills. In this sense, an interactive and dynamic class atmosphere is shaped.

3.6 Improving the teaching assessment system

Assessment is not the objective of teaching, but a means to promote student development. To assess students preferably and promote their development, it is necessary to improve the teaching assessment system to make it play its due role. The following should be adhered to. First, assessment subjects should be diversified. Assessment is not just the task of teachers, and students should be encouraged to participate in it and become the subject of assessment. Second, means and forms of assessment should be pluralized. Generally, “objectives of knowledge and skills” to some degree can be reflected through exam score, while “procedural objectives” can not possibly be reflected by scores. Therefore, teachers should observe students in class, create opportunities for students to take part in teaching activities so as to assess them objectively and justly. If students do well in class, teachers may use affirmative comments in class. What’s more, other forms like portfolio assessment can be used as well. Thirdly, contents of assessment should be comprehensive. Learning is not a single cognitive activity. Actually, it

involves learners' emotion, attitudes and values. At present, a number of schools in our country view exams as the main, and even the only means to assess students, and fit the quantitative results into one of the moral, intellectual, physical and aesthetic domains, which can not reflect all around development of students. To better such assessment system and promote students' all around development, it is a must to implement comprehensive quality assessment.

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A Preliminary Research on the Developing Model of Technological Sciences-Besides Discussion on a social mechanism of Modern Science & Technology Policy

LIU Qihua (Nanjing University of Technology, China)

qihualiu21cn@126.com

Abstract Depending on the unified category definition and a series of cyclical characteristics for technological sciences, transplanting the methodology of “function coupling net, homeostasis and organizations growth theory” from physiology and cybernetics, the developing model of technological sciences is constructed taking social industry/utility systems, basic science systems, and relative social institution systems of science as three “hardware” dimensions, “target parameters” system including relative social mainstream values, related state laws and government policies as “software” dimension. Macro-society system of technological sciences is a new function coupling net cyclically growing from System A, and provides knowledge and professional people for breeding and constructing specially the leading industry group through developing climax of technological sciences. Then, (1) the rationality of the developing model of technological sciences with “continuous nest wave patterns” during the 4th economic long wave is challenged; (2) a series of rational suggestions to improve the future administrative system of S. & T. policy for every country are put forward.

Keywords the developing model of technological sciences; function coupling net; organizations growth; disorder wave; nest wave; S. & T. policy

1. Introduction

Contemporary philosophy of science has developed a researching climax on the developing model of science and harvested a lot of fruits, such as the developing models put forward by K. Popper, T. Kuhn and I. Lakatos etc. From the researching above we can find two important enlightening points :

(1) the developing model of science is used to explain the internal mechanism and basic characters of scientific development, and it is a model to describe the law of scientific development. Although different developing models of science have different forms, yet they all include the goal direction, dynamic mechanism, evolution characters and evaluating norm, so the developing model of technological sciences in this paper ought to be a model to describe the law of technological sciences development, and reply to the questions about the goal direction, dynamic mechanism, evolution characters and evaluating norm of technological sciences.

(2) almost all of the developing models of science indicate that science progress all presents cyclic phenomena in the time series just as “ $P_1 \rightarrow TT_1 \rightarrow EE_1 \rightarrow P_2 \cdots$ ”. So whether there are cyclic characters for technological sciences developing has become the first premise to construct successfully the developing model of technological sciences.

However, almost all the accepted developing models of science are constructed for basic sciences, so the problem can be resolved in the extent of science epistemology. But the development of technological sciences must depend on the background of basic sciences, the direction of social applying goal and the suitable social institutions for its developing. So the research program in this paper relates to not only science epistemology but also the sociology of (technological) science. Thus the latter is more difficult and complex than the former.

2. Main Research Fundamentals

2.1 Unified Definition on the Category of Technological Sciences

To counter a chaotic aspect in academic circles, specially in Chinese academic circles caused for understanding differently some concepts, such as applied science, engineering science, technological sciences and engineering technology etc. Through multiple-researching program of sorting out the classical old understandings, analyzing the typical cases of technological disciplines, relative statistic studying, systematic history surveying and relative theory clarifying, we have made the unified category definition for technological sciences as follows:

Technological sciences is a new branch range of scientific knowledge between basic sciences and engineering technology, consisting of four layers called separately basic technological sciences (T₁), process technological sciences (T₂), engineering technological sciences (T₃) and synthetic technological sciences (T₄) to form a continuous spectrum from abstraction to concreteness, and is a group of disciplines which interact among themselves to form a network^[1].(fig.1)

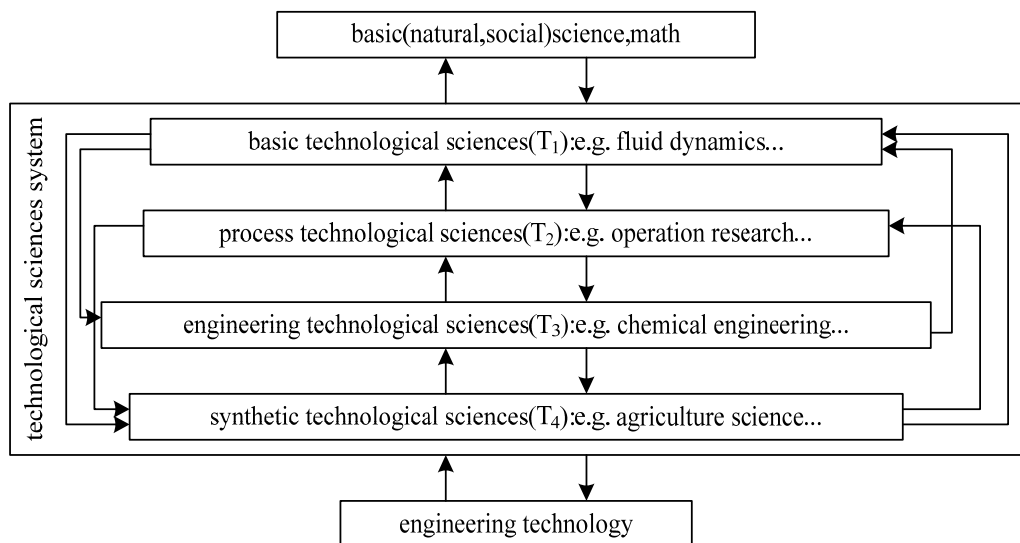


Fig.1 The Structure of Opening System of Technological Sciences

2.2 The History Division of Technological Sciences

Taking the above category of technological sciences as a base, choosing a suitable disciplines dictionary chief-edited by Jiang Zhenhuan^[2] as a statistics source, through relative statistical computation analysis and multi-dimensions (evolution of industry structure, background of basic science, engineering technology education and other relative social institution) empirical study, we have arrived at the conclusions concerning the history division of technological sciences.(table 1)

Table 1 Conclusion on the History Division of Technological Sciences

history division	time phase	knowledge constitution
budding period	1440*-1819	consisting of T ₁ and T ₃
institutionalizing period	1820-1914	consisting of T ₁ , T ₃ , T ₄
mature period	1915-	consisting of T ₁ , T ₂ , T ₃ , T ₄ , forming a perfect system of technological sciences

*taking 1440 A.D. as the beginning of the Renaissance

2.3 The Cyclic Characters of Technological Sciences Development

Firstly, 886 technological disciplines produced during 1440-1987 are chosen from the disciplines dictionary of statistics source, and divided into four layers of T_1, T_2, T_3, T_4 . Secondly, a cluster of curves are drawn according to the above data to express the increment characters of (T_1, T_2, T_3, T_4) technological sciences development during 1440-1987. Thirdly, Economic Long Wave curve drawn by Rainer Metz is put together with the above cluster of curves in order to compare between the development of technological sciences and the evolution of industry structure (fig.2). The conclusions can be made from the phenomenal analysis of fig.2 and the systematic empirical study as follows:

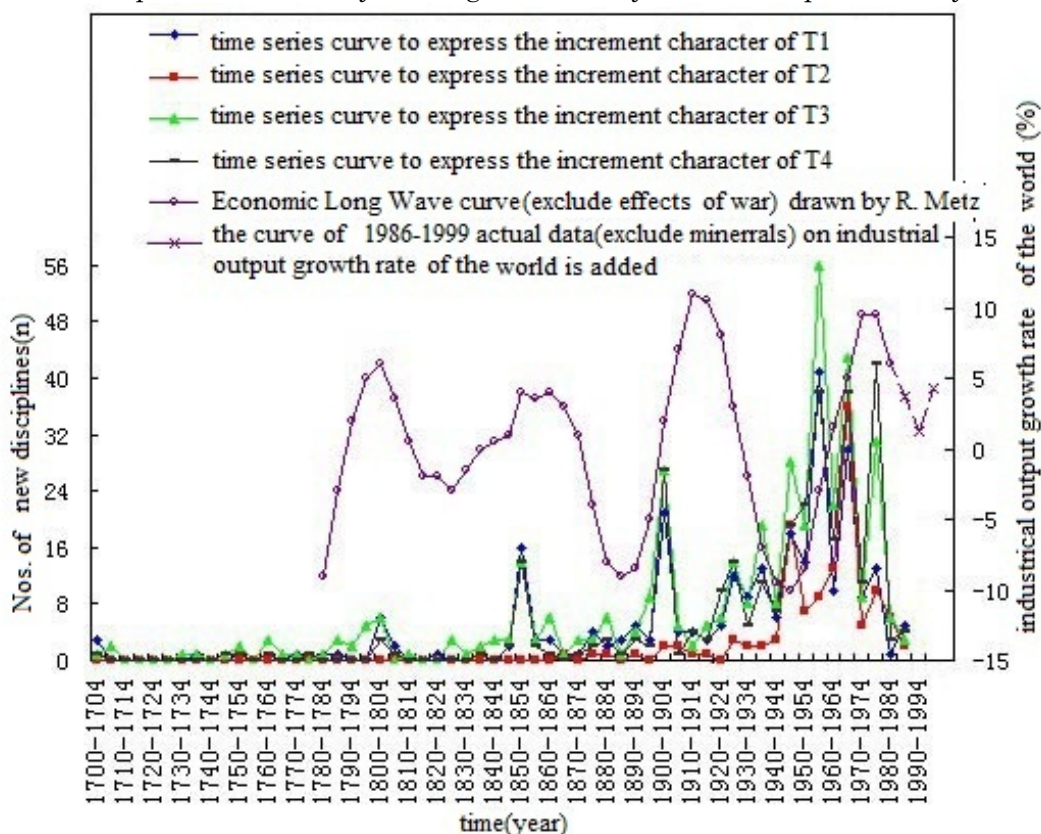


Fig.2 Comparing between the development of technological sciences and the evolution of Economic Long Cycle

- (1) The 4 developing peaks of technological sciences almost fall successively into the 4 Economic Long Waves at the time interval.
- (2) In the developing of technological sciences, the interval per circle is about 50 years. And this circle almost equates and corresponds to the cycle of Economic Long Wave.
- (3) Before 1940, every developing cycle of technological sciences consists of a disorder wave phase (that is, the four curves of T_1, T_2, T_3, T_4 don't show a clear relativity at this phase) and a nest wave phase(that is, the above-mentioned four curves are almost consistent with the increased and decreased rate, synchronizing with the beginning and ending times, nesting among peaks, and showing a clear relativity at this phase); after 1940, on the whole developing cycle, technological sciences is performed of continuous nest wave pattern which is composed with 4-5 sub-peaks at 10 years interval.

3. Basic Conception for Developing Model of Technological Sciences

3.1 Function Coupling Net, Homeostasis and Organization Growth Theory

Because of the complexity concerning the development of technological sciences, in order to construct reasonably its developing model, we transplant the methodology of “function coupling net, homeostasis and organizations growth theory” from physiology and cybernetics. The developing clues of this theory idea are as follows.

(1) Near the turn of last century, C. Bernard, a physiologist from France discovered that the stability of “milieu interne” (internal surrounding) is basic and unique condition for free and independent lives^[3].

(2) In the 1930’s, W. B. Cannon, a famous physiologist from U.S. discovered the homeostasis of life organization. He considered that there was an internal self-adjusting equipment to maintain the mechanism of homeostasis, and emphasized that homeostasis was the base of life organization growth^[4].

(3) In the 1940’s, N. Wiener further revealed that the self-adjusting mechanism of the body stated by W. B. Cannon essentially was the negative feedback mechanism^[5].

(4) Jin Guantao, a Chinese researcher, further summarized and developed the above ideas. He indicated as follows^[3]: ① organization virtually is a function-coupling net with its special whole function through function coupling each other by inside every part. ② organization is the base to maintain life being, there is a negative feedback mechanism inside organization to maintain its homeostasis. ③ organization growth implies automatic expansion of function-coupling net, that is, new function-coupling net grows up from the original function-coupling net. So the maintenance and growth of organization can be summarized as the cyclic developing process as follows: “homeostasis→new function-coupling net→new homeostasis→further to construct newer function-coupling net.....”

3.2 Basic Social Background for Technological Sciences Developing

After the Industry Revolution technological sciences developed so fast that its developing climax emerged one by one. We consider that the following two basic social background conditions can’t be neglected:

(1) Along with the commodity economy flourishing and social division of labor specializing, various social communities were institutionalized into independent social sub-system. According to their own special functions and the relationship of supply-demand between each other, these social sub-systems can be constructed as a function-coupling net and further form new social organization.

(2) After the 19th century, along with science and technology developed rapidly and the social function of science was further strengthened. The studying works of science were professionalized gradually. Adapting to the social needs, various discipline (specialty) communities were institutionalized into independent social sub-system and became the essential parts of many new social organizations.

The system of technological sciences as the medium between science and technology and a new system of producing scientific knowledge, its process of genesis and development certainly can’t be divorced from the above basic social background. For this reason, we can use the above function-coupling net, homeostasis and organization growth theory for reference and try to construct the developing model of technological sciences.

3.3 Basic Social Function-Coupling Net for Breeding Technological Sciences

According to the above mentioned three conditions indispensable for developing of technological sciences, we choose social industry/utility systems, basic science systems and relative social institution systems of science as the three “hardware” dimensions to construct function-coupling net.

We can see easily by careful analyses: industry/utility systems have the function of creating substance wealth and supplying public services (output), but need to absorb specialized people and new knowledge and fruits of S. & T. (input). Basic science systems have the function of producing knowledge (output), but need funds, researchers and new scientific fruits (input). The relative social institution systems of science have the functions of training people and developing scientific fruits (output), but need research funds and new knowledge (input). Thus under the broad social background dominated by market economy, the above three sorts of systems can interact and match each other in accordance with their own functions of “output” and “input” to form inside parts of “homeostasis System A” shown by

fig.3 (don't contain imaginary line).

3.4 The “software” Dimension of Integrating Social Values for forming Social Organization

If the interaction and matching of the above three sorts of systems is irregular and unstable, they won't integrate into relative stable social organization. As viewed from cybernetics, the function-coupling of the above three sorts of systems actually is an interaction, and forms an information transmitting loop caused by coupling among them. If the above sub-systems can be adjusted by negative feedback in light of specific “target parameters” system to realize homeostasis, the function-coupling net integrated by the above sub-systems has become a new social organization-homeostasis System A shown by fig.3 (containing imaginary line). The special whole function of homeostasis System A can be defined as follows: to promote the evolution of industry structure and the development of economy & society by training people, developing fruits and producing knowledge depending on education, R&D and market exchanging.

The “target parameters” system actually is a social value “software” dimension for integrating System A. In the society for developing technological sciences, it's mainly embodied in the relative social mainstream values, related state laws and government policies.

The relative social mainstream values that promote the integrating of homeostasis System A, include the principles of fair competition under the guidance of values law, the basic consciousness of scientific activity (universality, criticism, rationality...), the mechanism of paying for transferring the possession of knowledge, the general social mood for connecting theory with practice.

Relative state laws to promote the integrating of homeostasis System A, include relative provisions from patent law, education law and the law of S. & T. for each country.

Relative government policies to promote the integrating of homeostasis System A, include the relative regulations, stipulations and quotas from the strategies of S. & T. , the programs of S. & T. and administrative policies of S. & T. of different countries.

In an actual society, it is the ideas, viewpoints, specific index, targets and so on from the above three aspects that constitute the “target parameters” system for integrating social values of “software” dimension. It is quite evident that when the “target parameters” system is realized fully and stably by the repeated interaction and function-coupling of the three “hardware” dimensions, the new social organization-homeostasis System A is bound to emerge.

3.5 Two Steps for the Social Macro-system of Technological Sciences Growing

According to the above cyclic process of organization growth-“homeostasis→new function-coupling net→new homeostasis→further to construct newer function-coupling net ...”, we consider that a whole social Macro-system of technological sciences is evolved from System A by two steps.

(1)In the homeostasis System A, various micro-system of the discipline (specialty) of technological sciences (e.g. chemical engineering) grow separately by function-coupling with System A according to the relationship of supply and demand and new corresponding partial homeostasis is realized by adjusting various partial social values(e.g. in chemical industry, the producing process requires large-scale and continuity). So the first step organization growth was fulfilled on the micro-layer^[6].

(2) Under the guidance of the core social values for breeding and constructing the special leading industry group, on the one hand, some supplementary micro-systems of the discipline (specialty) of technological sciences grow continuatively from System A depending on the same approach as above, on the other hand, the social macro-system of technological sciences grows from System A by interacting and function-coupling among all the produced micro-systems of the discipline (specialty) of technological sciences, System A has realized new homeostasis in the full sense, and homeostasis System B has developed from System A at the same time. The whole function of System B can be defined as follows: the special leading industry group is bred and constructed by cultivating qualified people, producing knowledge, developing fruits, depending on education, R&D and market exchanging (fig.3).

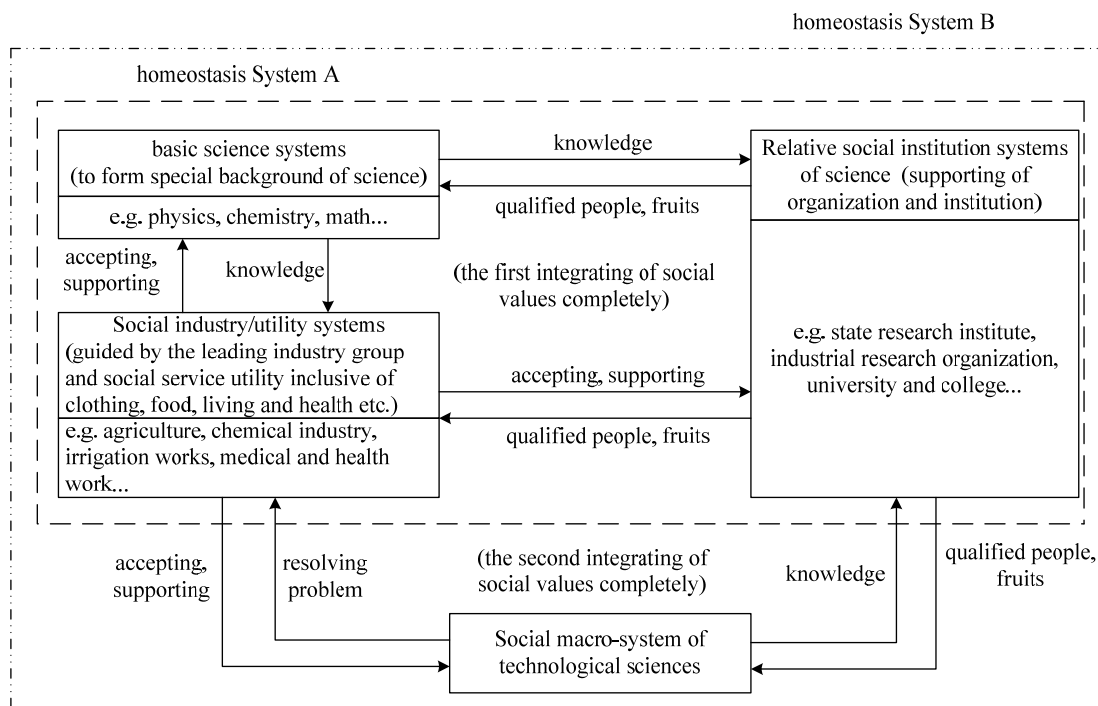


Fig.3 The Basic Developing Model of Technological Sciences

Actually the social macro-system of technological sciences is a new function-coupling net grown and enlarged from System A through the organization growth. By comparing between fig.2 and some of our past researching fruits [7], it isn't difficult for us to discover that the growing step of micro-system of the discipline (speciality) of technological sciences corresponds to the developing phase of disorder waves shown by fig.2, or the phase of continuous exponential curve at the total amount character curve of technological sciences overall development. Because the latter presents the law of exponential rise, it is called the developing phase of self-organization of technological sciences.

However, the growing step of social macro-system of technological sciences corresponds to the developing phase of nest waves shown by fig.2, or the discontinuous phase of exponential curve at the total amount character curve of technological sciences overall development, it is the climax phase of technological sciences that was completed under the guidance of unified social value goal to breed and construct the special leading industry group, so it is called the developing phase of dominated-organization of technological sciences.

Since the Industrial Revolution, every leading industry group only sustained a certain life-span, so the developing climax phase of technological sciences to supply the services of knowledge and specialists for developing and perfecting leading industry group presented the discontinuous and cyclic character. Before 1940, this cyclic developing climax generally lasted only 30 years. After the developing climax, the development of technological sciences began to come back to the developing state of self-organization, and at the same time the social macro-system of technological sciences corresponding to the last developing climax began to disintegrate. Before a new developing climax of technological sciences came into being, the developing phase of self-organization of technological sciences presenting disorder waves pattern was preparing for breeding a new leading industry group and developing a new climax of technological sciences.

How did the developing climax of the fourth Economic Long Wave after 1940 compose of 4-5 continuous sub-peaks at 10 years interval, form the pattern with continuous nest wave? We consider that was caused for the reasons from both "hardware" side and "software" side. The main reasons from "hardware" side are as follows:

(1) Many basic science fruits from the revolution of physics by the turn of the last century had become

gradually the accepted forms of knowledge for engineering technology by digesting, absorbing, transforming over 30 years.

- (2) Many military fruits of S. & T. during the two world wars were transformed rapidly for civil purposes, which supplied a lot of growing-point for S. & T. entering into economic field.
- (3) New social institutions of S. & T., such as the research organization of big science, the innovation system of the state or regions, supplied the important guarantee of organization for researching integrated with production and education.

On the side of “software”, the policy of S. & T. became gradually the main embodying form to affect the developing directions and specific activities of S. & T. “firmly, organizationally and institutionally”. Thus the great majority of activities of S. & T. were controlled under the willpower of government of each country.

It’s the synthetic affection from the above various conditions that made possible not only the development of technological sciences during the fourth Economic Long Wave fully on the “rigid” developing state with the continuous nest waves pattern, but also its developing climax almost covering the whole Economic Long Wave. Thus this phase was called new times by К е д р о в, Б.М. with a group of technological leading disciplines which were consisted of cybernetics, atom energy science and space science.

4. A challenge to the Rationality for the Developing Model of Technological Sciences with “Continuous Nest Wave Pattern”

4.1 The Main Embodying forms for Integrating Social Value and Comparing Study among them

As shown in fig.2, after 1940 the development of technological sciences with the pattern of continuous nest waves indicates the developing model has been different from that before. On the one hand, in this phase technological sciences presents the unprecedented developing trend, firstly takes on the role of leading disciplines, and promotes the development of economy and sociology ; On the other hand, we must see that it is the rapid development of S. & T. in this phase that results in the new crisis all over the world at present such as the pollution of environment, global warming, eco-crisis, energy crisis and so on. We consider that it is perhaps the policy of S. & T. that takes on the main embodying form for integrating social values to result in these consequences.

Through an exhaustive history survey we can discover that the main embodying forms for integrating social values are very different in the different developing periods of technological sciences. In the budding period, its main embodying form was only the relative social mainstream values developed in the capitalist society. In the institutionalized period the corresponding main embodying form was replaced by the relative state laws. By comparing the social values and state laws, the differences between them can be shown in table 2.

table 2 comparing the basic characters between values and laws

basic character embodying form	showing way	character of content	utility property
values	recessive	in disorder	voluntary
laws	dominate	in order	restrictive

From table 2 we can see that the main embodying form for integrating social values was changed

and its integrating function was strengthened which enabled technological sciences to make greater progress and establish its independent social institutions in nearly 100 years from the beginning of 19th century to the beginning of 20th century, exerting the impact to not be ignored.

After 1915, in the mature period along with the capitalist mode of production matured and international competition intensified rapidly, the relative policies of S. & T. were added to the main embodying forms for integrating social values by the governments of different countries besides social values and state laws. Thus a large number of S. & T. policies interfered with the developing directions and specific activities of S. & T. and the power affecting the development of technological sciences from outside society was strengthened dramatically.

This period usually was divided into two phases by the year of 1945 when the Second World War was ended, and the *“Science–The Endless Frontier”* was published by V. Bush. In the former phase, because of the needs from the two wars the governments of relative countries took the policy firstly as a temporary measure to interfere directly in the activities of S. & T. under the special conditions of time and space, and harvested many obvious fruits such as the successful manufactures of atom bomb and radar, and the rapid development of electronics. After 1945, through summarizing experiences of the wars many people realized that S. & T., as the national source would play a role which couldn't be replaced. President Roosevelt F.D. had said: “new frontiers of the mind are before us, and if they are pioneered with the same vision, boldness, and drive with which we have waged this war we can create a fuller and more fruitful employment and a fuller and more fruitful life”.^[8] Henceforth, many countries constructed a lot of big researching organizations for military and civil purposes concerning the respects of national defence, agriculture and atom energy etc., thus the new times of S.&T. policy institutionalization began. From then on, the government policy has become the main embodying form for integrating social values. By comparing state laws and government policies, the differences of them can be shown by table.3.

Table3. Comparing the basic characters between state law and government policy

basic character embodying form	The rules for making	expressing way	time effect	space effect	utility property
state law	standardization	more abstract	longer	often consider on the whole	restrict in principle
government policy	flexibility	more concrete	shorter	often be aimed at partially	operating easily

From table.3 we can see that the former would be safer and more reliable, and the latter reacts to emergency more quickly but results in mistakes more easily too. It is this reason that makes technological sciences almost full on the “inflexible” developing state of dominated-organization and basically excluding the developing phase of self-organization reflecting its own developing law of technological sciences. This obviously runs counter to the Chinese traditional philosophy on the ruling ideas of exchanging between relaxation and tension (“文武之道， 一张一弛”) thus in this phase it is not difficult for us to understand why so many unexpected negative social effects caused by S. & T. have been produced.

4.2 Every Country Must Improve the Present Administrative System of S. & T. Policies

In order to make the policies of S. & T. play better roles in the development of technological sciences

and exclude negative effects resulting from abusing S. & T. policies, we must reflect the procedures for making S.&T. policies inclusive of its researching, making, implementing, evaluating, reforming etc. on an overall scale. This is possibly very complex system engineering, and some basic principles are put forward for reference to the relative departments of every country as follows:

- (1) In the global development of S. & T. and economy, the researching and making work of S. & T. policies should be not only important affairs of the government of each country but also a great affair of the whole world and the U.N... In order to avoid the global crisis, the international interactions and coordination must be strengthened.
- (2) In order to restrict reasonably the implementing power of S. & T. policies, more overall law of S. & T. must be drawn up, even relative provisions of the constitution should be added. In the future development of S. & T. the strategic problems must be coordinated by the laws of S. & T.; the normal administrative problems, such as the partial coordination of S. & T. relationship, and specific program of S. & T. should be coordinated by the policies of S. & T. to avoid the big fault caused by S. & T. policies.
- (3) In the specific programming and drawing up of S. & T. policies the positive social effects must be pursued actively and reasonably, and the negative social effects unexpected must be guarded against and avoided; we should meet outside social needs boldly and promptly, and obey developing law of S. & T. for insuring S. & T., economy and society to develop comprehensively, harmoniously and sustainably.

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On Process View: Momentum of Ecological Society's Development

LUO Xiaoping

(Academy of Marxism, Chinese Academy of Social Sciences, China)

luoxiaoping88@gmail.com

Abstract: From process perspective, the universe is composed of existence in a variety of interrelated systems and formation of mutual connected organic system. Everything existing on this planet is a process. Nowadays, ecological concerns are emerging with the modern environment and the resources question, human society must be enter into ecological society. On process view, the momentum of ecological society' development includes three aspects: demands of ecological balance, appeals to spiritual ecology and requirement on ecological science and technology.

Key Words: Process view Momentum Ecological Balance Spiritual Ecology

In Whitehead 's *Process and reality*, the idea of Process shows that the universe is composed of various actual existence events connected and formation of mutual contain organic system. Natural, society and thinking probably also in the universe are living organism that are in eternal process of evolution and creation. The fundamental composition part of universe is not the so-called prima material (Prime), but an organism composed of features and relations whose ultimate character is activity. One organism can converted into another as well as in the whole universe¹.

Ecological concerns are emerging with the modern environment and the resources question, social development faced with serious ecology crisis. Since the 20th century, with the robbing extraction and

¹ Alfred North Whitehead . *process and reality*, trans. Yang Fubin . Beijing: Chinese City Press. 2003.P.564.

wasteful use of the non-renewable energy resources, a series of regional and world environmental problems has come into being. A focus and concern on how to deeply recognize again and adjust the relationship between human and nature is a pressing task. On process view, the development of ecological society is not a blind or spontaneous process but develops orderly according to the law of development of society and a key element in reality and the historical development.

Hegel uses the concept “moment” in his book *The Philosophy of History*. “The term was borrowed from mechanics by Hegel. He employs it to denote the contending forces which are mutually dependent, and whose contradiction forms an equation. said John Sibree in the translator’s introduction to the English version of the book.² “Moment” is the dynamics that push things forward in their internal contradictory movement. In classical mechanics, “momentum”(kg m/s in the International System of Units, MLT^{-1} in dimension)indicates the product of mass and velocity ,also in social development .The core of momentum in society lies in the achievement of great balance among all sorts of complexity to keep the historical process continue.

So, what is the “moment” in Ecological Society’s Development?

I. The First Momentum: Demands of Ecological Balance

On process perspective, all things in the global biosphere have intrinsically deep association with each other as well as their respective values. All being in the world exists in energy or a complex combination of energy events. Ecological balance is also in continuous process by moving and gain balance as they go.

The tremendous contrast presented by past and present climate alarmingly reminds us of the detrimental deterioration of natural ecosystem by the greediness of mankind. For example, the industry of commercial fishing had undergone a booming expansion along with the growing public awareness of

² P. 6 in *The Philosophy of History* by Georg Wilhelm Friedrich Hegel, Translated by J. Sibree. Kitchener, Canada: Batoche Books, 2001.

the merits of seafood, which made fishing unusually profitable. Lacking knowledge regarding the significance of ecological balance, businessmen sent out ships that insatiably chased fishes and thus posed a severe threat to all life in the sea. However, this trend may in turn endanger humankind.

Global Climate Risk Index 2009 by analyzing the global climate risk states that countries have been seriously disadvantaged by the crisis related to climate: due to the continue influence, climate process and extreme weather events will increase in frequency and intensity – the most well known of these is the El Nino Phenomenon in the South Pacific. It must be slow the process of Millennium Development Goals. On 5th March 2008, World Organization for Economic Cooperation and Development passed *OECD Environmental Outlook to 2030* in which people analyze the trends of economy & environment, and make dynamic simulation to above mentioned respond to climate change policy and action, and they indicates that we risk irreversibly damaging the environment and the natural resource base needed to support economic growth and well-being without new policies. The costs of policy inaction are high.³

II. The Second Momentum: Appeals to Spiritual Ecology

Natural ecology is a material concept while spiritual ecology is psychological one. People know more about how to restrain environmental pollution, but they ignore how to restrain their swelling changing towards materialism and self-interest activism. And nowadays, human being need face all risks of surroundings, and keep a healthy lifestyle. Take the *Wenchuan earthquake* in Sichuan Province in China for example. The force of the earthquake was overwhelming not only for the area and physical harm but also to everyone's heart which caused tremendous pain and wound, their mental suffered a huge shadow. Human spirit is also a process of development with the whole history. People need to seek

³ www.oecd.org/dataoecd/30/17/40203197.pdf 2008-3-5

a natural living style to achieve spiritual growth and maintain mental harmony .Spiritual ecology can accelerate social development in the aspects of reducing fierce competition and obtaining harmony among people. To some extent, people can change social situation and keep harmonious social relationship by purify the mind, treasuring the kindness between people as well as environment. Therefore, spiritual ecology is crucial. To reverse this situation, in addition to basic economic and technology, we still must strengthen ecological moral education; cultivate rational, mining ecological moral resources of the human soul.

In the *Walden*, it does not ask us to submit to nature, nor is it an effort to praise the individual above the community. Nature teaches us to learn to reach beyond nature. We observe the nature, learn from the nature, understand the laws of nature humbly, share the nature with different species peacefully and hence, being alive is happiness itself.

We can no longer afford to be ignorant or think that we can abuse the world as long as what we please. Spiritual ecology means reminding our consciousness of what is the most important in all of life, and knowing that only if we live together with the nature in harmony, can we hope to redeem what we have desecrated and destroyed through our greed and arrogance. It means to reclaim the wisdom of our ancestors who knew the grand interconnections of life and the nature forces within it. We should learn how to understand the natural law and get familiar with the natural developments, how to bring an awareness of ecological rehabilitation which is a historical progress for the human to interpret nature and change it. We cannot afford to remain in this socially destructive area, so we lost our spiritual homeland. Their ideology is born from the separation of spirit and matter, and this is what has caused the problems that are now bleeding the lifeblood of the planet. We must think that science and technology will give us the answers, meanwhile, we need to restore our ecological imbalance. However, we may treat nature correctly in our minds. It is part of a living organism just like the cells in our own

body. And this living organism is an embodiment of spirit. We have to bring ecological awareness and heal the split that has wounded our world whether we take responsibility for our predicament for the future of the world. (See also <http://www.workingwithoneness.org/spiritual-ecology>)

III. The Third Momentum: Requirement on Ecological Science and Technology

For thousands of years, people are constantly aware of human nature, the use of nature modified the benefit of its own nature. Science and technology plays an important role during the human being's process of science exploration, nature recognition and nature reconstruction. Science provided people with the powers to understand and recast nature, to enlighten rationality for fatuous dictation, and to undertake the modern culture revolution and social reformation.

But we must know that the purpose of practice is to comprehend nature, guarantee subsistence, develop in an orderly way, and live in harmony. It is an ecological system that brings an interaction of technological innovation to its environment and inter-techniques. One side, technological innovation does not break away from its environment. On the other hand, technological innovation does not demolish its environment.

Zhang Hengqu had discussed in his article *taihe* that what is “*taihe*” and what kind of state can be called “*taihe*”? Wang Chuanshan who is the famous thinker During the period of the late Ming dynasty, explanted Zhang’s words that “*Taihe*” is the ultimate of all harmony .There is no disharmony before the sundries of tangible while harmony exists continually after the actual objects ,so it is “*Taihe*”.This is to say that “*taihe*” is the most harmonious state. Before human create the tools to change the nature, there is no disharmony on the earth.

“*Taihe*”is the entirely harmony that although human invent the “useful tools for change” without losing the original harmony. All the money and the technique cannot take the place of the ecosphere self-regulation. The science and technology development guided by the traditional human centralism

and moral philosophy have caused ecological mismatch between human and nature. If do not try to change, the relationship between man and nature will be worse. Ecological science and technology will continue to develop with the social change and follow the trend of the ecological society development.

Technology is a two-edged sword; it has changed people's life, but also has its limitation at the same time. Technology's ability to change object is limited. It can change the material, energy and information of the nature, substitute for person's physical strength and some mental work, but may not change people's biological nature. Technology can help people solve life's problems, also can help human to know ,to change or to construct nature and improve social welfare ,but it cannot solve problems of thoughts, faith and ethics. It can only get the limited results to use the technology entity replacing the natural entity, or to simulate the natural process with the technology process. Technology entity is not equal to the natural entity and the technology process is not equal to the natural process. For example, building dams always cause more or less rare species extinction problems. Even if the artificial technology can control rare species breeding, but it is not equal to the natural breeding, it can't absolutely replace natural breeding. Science and technology take potential risk. Technology is man-made and services for people, but the result may harm people themselves.

Ecological balance of technology innovation is a equilibrium which indicates that the interrelationship among factors in technology innovation ecosystems ---energy and material, input and output of the information, inside and outside knowledge, technique, organizational community and environment---can reach mutual adaptation and synchronized harmony. In short, ecological balance of technology innovation is that the structure and function must remain relatively static and match with each other.

The earth is the cradle of life, its own natural phenomena ---climate, temperature and the rain, snow and so on --- prepare for the life reproduction and biological evolution, so that the earth's biosphere becomes an organism associated physical chemical and biological parts.

Science and technology also is in their road to improvement and has its own process. We have limited

recognition and evaluation about scientific law of the whole natural. We still can't grasp t extremely complex relation of the earth life's support system, thus we cannot use technical equipment or technology and methods to replace the earth's self-adjustment mechanism which experience billions of years evolution. Dr.E Goldsmith had straightly said that money and techniques of the entire world can't replace the self-adjusting control. If human wants to survive, then, we should try to ensure that the ecosystem self-adjusting mechanism in its natural function state. This is the most basic human duty.

Identity and Religious Conflicts

Helmut MAASSEN (German Whitehead Society, Germany)

maassen.h@onlinehome.de

In this paper, I will focus on religious beliefs and their significance for a person's identity, in particular on Christian beliefs. The path to violence is defined once religion claims a singular identity and absolute truth, Amartya Sen, in his famous *Identity and Violence, The Illusion of Destiny* states that 'many of the conflicts and barbarities in the world are sustained through the illusion of a unique and choiceless identity'.¹

Many religious advocates insist that the 'true' the 'original' the 'meant' religion is against violence and that Christian, Muslim, Jewish or Hindu terrorism is a distortion of the proper form of religion. Even if true, this claim does not bring us much farther, because one has to face the fact that even very different forms of terrorism show proximity to their respective religions.

The Egyptologist Jan Assmann has contributed a significant approach to the intertwining of religion and violence with what he calls 'the mosaic distinction'. In his book *The Mosaic distinction or The Price of Monotheism*, published in 2003, Assmann restates the thesis he had already advanced in his 1997 monograph *Moses the Egyptian*, which reads as follows: "The distinction I am concerned with in this book is the distinction between true and false religion that underlies more specific distinctions such as Jews and Gentiles, Christians and pagans, Muslims and unbelievers. Once the distinction is drawn, there is no end to reentries or subdistinctions."²

An approach to deal with different identity and truth claims can be found in Whitehead. Whitehead focuses his analysis concerning religion on religious experience. He relies to a large extent on William James' concept of experience, which was a rejection of a purely mechanistic understanding of reality. In doing so, James particularly stresses the importance of religious experience. Though not explicit, the cosmic ocean, in which the experiencing "I" finds itself embedded, is one of his major metaphysical presuppositions.

In Whitehead's "theory of religion", the development of religion leads (at least in his late work) to a rationalization of religious experience (RM 20-36) Although religious concerns were at first preoccupied with rituals, partial myths, and emotional stabilization, later religious consciousness

¹ Amartya Sen, *Identity and Violence: The Illusion of Destiny* (Issues of Our Time) Norton & Company; 1st edition (28. März 2006) p.XV

² Jan Assmann, *Moses the Egyptian. The Memory of Egypt in Western Monotheism* (Cambridge, Mass.) p. 1

evolved increasingly towards the recognition of universal connectivity, leaving behind provincial rituals and social bounds (RM 28). For Whitehead, this process of the "rationalization" of religion occurs within reciprocal movements towards solitariness and solidarity. These opposite features reveal the meaning of "religious intuition," namely, to be the universal mediation of uniquely experienced events.

Whitehead's approach to religious experience, therefore, provides a concept of religion in which one can achieve and maintain ones (religious) identity, without adopting the 'Mosaic' distinction or absolute truth claims, which would inevitably lead to conflicts.

Foundations of Dialogue among Cultures

Egor MAKHAROV (Department of Philosophy Yakut Scientific Center, Russia)

filosofia@prez.ys.ru

Irrespective of geographical location and historical fate nations reach for each other. They, like people, genetically and socially inherit much of what has formed in the course of their long history. One can ascertain it every time when people of different nations meet to solve some questions or just communicate.

The social world is formed as a result of a conscious, intelligent human activity. In the process of socialization the Man assumes the past and present experience which, in many respects, is a synthesis of many elements of peoples' cultures. As a rule, if ideas and conceptions from outside get accustomed in basic structural values of a nation's culture, they become this nation's own ones. This is how mondialisation of life world of both individuals and whole nations occurs.

In the conditions of globalization understanding of peoples' common life is significantly widened. It means not only being neighbors, having common borders but also being involved into the universal orbit through activity of transnational corporations and other factors. An objective basis for such a process is a yearning for communication and cognition of others based on historical experience as well as common needs and interests of inherent human nature. The necessity to solve global problems (environmental, demographic, food etc.) and the need of an adequate response to present political challenges make people unite and seek for a way out from the present situation through common efforts.

Today, as never before, peoples are still directed toward deeper cognition of their history, their roots and naturally on this basis they seek convergence, dialogue. In connection with the recent archeological research interest of scientists to the ancient history of North and South-East Asia rises. Yakut archeologists led by S.A. Fedoseeva put forward a scientific concept about settling of the American continent, the Korean Peninsula and the Japanese archipelago from the ancient North-Eastern territory of modern Russia, with the largest part being ancient territory of Yakutia.

The strong interest in this part of the planet is also related to the present advances in economical and cultural development of nations of this region.

Mondialisation of certain features of the Northern Man is likely to occur largely due to adoption

from eastern nations: Koreans, Japanese, Chinese, and others as we all are of the Mongoloid race and have much common in temper, beliefs, manners, the way we percept the world etc.

The most important factor in the leap forward of Southeast Asia is the characteristic features of the Asian traditional culture. The advanced Asian nations have preserved their community values, family traditions, collectivist spirit, Buddhist and Confucian views and values. All of this is fruitfully combined with universal values.

Understanding of having common historical roots, maintaining spiritual nearness are a guarantee of mutual understanding between nations, dialogue of cultures in spite of all present differences in life standards, political and ideological preferences.

Subject and Reflexivity: Bergson, Whitehead and Benjamin

MORINAGA Naomiki (Utsunomiya University, Japan)

devenir21@hotmail.com

Abstract

Rejecting the European traditional concept of "subject", Henri Bergson has defined it as an arrangement of two multiplicities: qualitative multiplicity/distinct (or quantitative) multiplicity. The Bergsonian "subject" as Duration is a multiple and dynamic process embedded in environment, which drives his way through the reality, pushed by *Élan vital*, and affords to it a Novelty. In principle, any human, any animal or any substance could have its Duration; everything should have it: in short "life". Bergson, in reality, tends to limit it to the living things. Indebted to the Philosophy of Life, Alfred North Whitehead will try to extend the theory of Duration by his own complex and profound terminology. The protagonist in his Philosophy of Organism is the "actual entity", which occurs in a network of relations, modifies the relationship itself and brings a new occasion or Novelty in an actual world. One actual entity is ready to connect with another, both of them emerge as Nexus, in other words "society". There are various societies at various levels in the universe of Whitehead, which creates itself, being alive.

In Bergson as in Whitehead, the theory of evolution has been assumed as a matter of course, but they were not merely optimistic evolutionists. Behind the brilliant success of evolution, how many disasters and catastrophes have happened? Under the sunny nature, so many tragedies have been buried *alive*. Because any actual entity, once occurred, immediately disappears, turns into "eternal object"; the living has metamorphosed, as it were, into the ghost. Life is open not only to unexpected adventures or Holy Grail Discovery, but also to unpredictable accidents or Dante's journey to Hell.

The universe is completely full of evil, violence and death? After the First World War, the theory of *Élan vital* in *L'Évolution créatrice* (1907) has fundamentally changed. In *Les deux sources de la morale et de la religion* (1932), *Élan vital* has transformed into *Élan d'amour*. Bergson was attempting to introduce the concept of personal God into his system. On the other hand, in *Adventures of Ideas* (1932), Whitehead was appealing to the Beauty and the Art for save humanity from the modern crisis. Nature itself is neither good nor evil, or rather it is a huge torrent (or tsunami) of energy beyond the human understanding. How can we derive good from evil?

Only man, not by God, solves this question. We modern humans live in the urban civilization, in other words, the media and information society that is, in my view, faced with the self-destruction. How can we overcome the crisis of *Modernité*? Regarding the mankind as a knot of media, Walter Benjamin

intended to reveal and destroy the trap of modernism. Subject in the present age is neither simply a Duration nor an actual entity; according to *Über den Begriff der Geschichte* (1940), it must be also an ethical subject, entrusted with hope by the forgotten past and the unknown ancestors.

Citizenship in an Ecological Civilization

Leslie MURAY (Curry College, U.S.A.)

lmuray@curry.edu

ABSTRACT

This paper builds on previous work that I have done on “an ecological democratic faith” and “biocracy.” In contrast to the typical anthropocentrism of most democratic theories, the notion of “biocracy” seeks to include listening to the voices of the non-human natural on their own terms and their own integrity as well as to institutionalize that listening. Put differently, “biocracy” is the political expression of an ecological civilization.

I am using the concept of “citizenship” in the sense of being an active participant in a political community, with the accompanying rights and duties. The idea of citizenship presupposes a particular understanding of the self. In most of the inherited Western intellectual tradition, underlying concepts of citizenship, the self has been construed as an unilinear, substantial self capable of acting but not receiving, not being effected by anything in its self-constitution. In contrast a relational, processive understanding of the self, human and non-human, is a characteristic of process thought. I use this processive view of the self, particularly Bernard M. Loomer’s notion of “size” and Bernard E. Meland’s concept of “appreciative awareness,” both building on Whitehead’s idea of beauty, to develop a relational view of citizenship that includes the non-human natural world. We become persons of greater “size,” “stature” and expand our capacity for “appreciative awareness” as we nurture our capacity to take into ourselves more and more of the world, withever richer contrasts. This also entails nurturing the capacity to listen to the non-human natural world and to represent the non-human world in the public square in its own terms and own integrity. At this point, I make use of the Buddhist understanding of the self, the “noself,” to heighten our understanding of citizenship in the broader context of the non-human natural world. I also utilize the Confucian emphasis on self-cultivation to develop further the idea of a responsive-sensitive-open-active-participative citizenry.

Thus, my new understanding of citizenship is relational, including a capacity for receptivity and sensitivity that empowers action. I explore various dimensions of this: citizenship and the particularity of communities, human and non-human; being a citizen of communities of communities of communities, ultimately of that which is closest to us to the universe itself in a common citizenship of all creatures. Finally, I explore some of the difficulties involved in effective democratic participation in the development of biocracy.

INTRODUCTION

This paper builds on previous work that I have done on “an ecological democratic faith” and “biocracy.” In contrast to the typical anthropocentrism of most democratic theories, the notion of “biocracy” seeks to include listening to the voices of the non-human natural world on their own terms and their own integrity as well as to institutionalize that listening. Put differently, “biocracy” is the political expression of an ecological civilization.

I am using the concept of “citizenship” in the sense of being an active participant in a political community, with the accompanying rights and duties. In most of the inherited Western intellectual tradition, notions of the self underlying concepts of citizenship have construed the self as a unilinear, substantial self capable of acting but not receiving, not being affected by anything in its self-constitution. In contrast a relational, processive understanding of the self, human and non-human, is a characteristic of process thought. I use this processive view of the self, particularly Bernard M. Loomer’s notion of “size” and Bernard E. Meland’s concept of “appreciative awareness,” both building on Whitehead’s idea of beauty, to develop a relational view of citizenship that includes the non-human natural world. We become persons of greater “size,” “stature” and expand our capacity for “appreciative awareness” as we nurture our capacity to take into ourselves more and more of the world, with ever richer contrasts. This also entails nurturing the capacity to listen to the non-human natural world and to represent the non-human world in the public square in its own terms and own integrity. At this point, I make use of the Buddhist understanding of the self, the “no-self,” and the Confucian emphasis on self-cultivation to develop further the idea of a responsive-sensitive-open-active-participative citizenry.

Thus, my new understanding of citizenship is relational, including a capacity for receptivity and sensitivity that empowers action.

CITIZENSHIP AND THE SELF

The word citizenship refers to a variety of concepts: belonging to a particular nation or community or ethnic group, usually defined by particular geographical boundaries, and identification with that community’s and locale’s particular cultural and historical traditions. However, I shall focus on the concept of “citizenship” as being an active participant in a political community, with the accompanying rights and duties.

While we can find the roots of such a conception of citizenship in ancient Greece and Rome, its more immediate ancestor can be found in the heritage of the Enlightenment and its emphasis on individualism. Politically, individuals are endowed with certain inalienable rights simply by virtue of being human, of being a unique human individual. The Enlightenment’s focus on individual liberty and equality followed from this. “Equality” did not mean “sameness.” Rather, it meant equality as human

beings, with no hereditary aristocracy born into and inheriting positions of power and privilege.

Of course, in actual fact, it did not work out that way. Restrictions were placed on citizenship based on the ownership of property, gender, and race. In fact one could claim that part of the legacies of the American and French Revolutions, in no small measure inspired by the ideals of the Enlightenment, is the extension citizenship to previously excluded, extending the right to participate in the life of the political community.

In at least the modern Western tradition, the idea of citizenship is rooted in the notion of an isolated, independent, self-sufficient, self-contained individual who requires nothing but himself (predominantly himself) /herself (and God) to exist (i.e. a substance). Relations are freely chosen and not constitutive of the very being of the self. Thus, the self and its power are unilinear, capable of acting on others but incapable of being acted upon or receiving influences from others and the world in its self-constitution. It goes without saying that this notion of the self applies only to human beings and not to non-human animals.

THE PROCESS VIEW OF THE SELF

The process view of the self is not atomistic but thoroughly relational. The self, human and non-human, is a moment of experiencing. The past, like a tributary, flows into the present. The present moment of experience “prehends,” (to follow Whitehead) internalizes the past, not just its own past but the past of everything of the universe, even as it reaches out to the possibilities of the future.

A momentary experience or actual occasion is free, both consciously and subconsciously, as to *how* it prehends the past. Actual occasions are also free as to *how* they respond to the possibilities of the future.

It is important to note that while the becoming of an actual occasion described above is that of a tiny energy event, the basic unit of reality, it is descriptive of the becoming of all actualities, with varying degrees of complexity.

A momentary experience has a receptive as well as an active side. The actual occasion, as we have seen, receives data from the past and creatively synthesizes that data, making decisions about what in the data is relevant in that particular moment of becoming. The active side is the momentary experience reaching for the possibilities of the future. This is not to be understood dualistically but as different aspects, dimensions of a momentary experience that lasts a fraction of a second.

In its becoming, each actual occasion drives at the experience of beauty. For Whitehead, beauty involves two things, harmony and intensity. In any experience, human and non-human, there needs to be some sense of harmony. But it is possible to have too much harmony leading to the trivialization of experience. Hence, the need for intensity, for richness of experience that usually comes through contrast, a contrast of colors, sounds, ideas, etc. Thus, beauty is the dynamic, delicate balance between harmony and intensity.

THE CONCEPT OF “APPRECIATIVE AWARENESS”

Bernard E. Meland and Bernard M. Loomer appropriate the Whiteheadian concept of beauty in developing respectively their ideas of “appreciative awareness” and “size.” “Appreciative awareness” Meland also calls “appreciative consciousness.”

Appreciative awareness or consciousness is a creative response to the structures of experience, a sensitive response from the depths of experience to the structures of sensitivity. It is an openness, receptivity, and sensitivity that empowers the self to take more and more of the world, with all its contrasts, diversity, ambiguity, “otherness” into oneself. It is the opposite of the truncated self that sees others as mere extensions of his/her ego, that tries to make others into her/his own image, or impose his/her limited meanings on others (Meland, *Higher* 64-71).

For the purposes of this paper, it is especially important to note that all selves, human and non-human, have some capacity for appreciative awareness. Secondly, the world that the self takes into itself is not just the world of humans but the non-human natural world as well (Meland, *The Realities* 201).¹ Our very capacity for appreciative awareness is rooted in our earth-creatureliness.

THE CONCEPT OF “SIZE”

Bernard M. Loomer developed the idea of size late in his career. It is a concept that he applied to human and non-human selves and God. Loomer defined size in the following manner:

By *size* I mean the stature of a person’s soul, the range and depth of his love, his capacity for relationships. I mean the volume of life you can take into your being and still maintain your integrity and individuality, the intensity and variety of outlook you can entertain in the unity of your being without feeling defensive or insecure. I mean the strength of your spirit to encourage others to become freer in the development of their diversity and uniqueness. I mean the power to sustain more and complex tensions. I mean the magnanimity of concern to provide conditions that enable others to increase in stature. (Loomer, “S-I-Z-E” 70)

Size is “our readiness to take account of the feelings and values of another” (Loomer, “Two” 18). The world of the person receptive to and capable of taking another into her/his very self without losing his/her freedom or her/his identity is larger than the world of the person afraid of being influenced

¹ See also, Meland, Bernard E. *Modern Man’s Worship: A Search for Reality in Religion* New York and London: Harper and Brothers, Publishers, 1934.

(Loomer, "Two" 18). Moreover, in a way typical of exponents of the notion of the relational self, he maintains that it is "... our constitutive relationships that enable us to be free" (Loomer, "Two" 21).

If the self and, in fact, reality itself are fully relational, power is no less relational; it involves *both* the capacity to affect, to carry out a purpose, *and* to undergo an effect, to be acted upon Loomer, "Two" 22-23). Loomer claims that "the ultimate aim of relational power is the creation of those relationships in which all participating members are transformed into individuals and groups of greater stature"(Loomer, "Two" 23).

The category of ambiguity is a crucial element in Loomer's understanding of size. A person of size is capable of appropriating ambiguity into her/his momentary becoming (Loomer, "The Size" 20-51). The greater the pattern of contrast a person is capable of integrating into his/her momentary becoming, the greater the size, the greater the capacity to tolerate greater degrees of ambiguity.

As for Meland, for Loomer the world we take into ourselves includes the non-human natural world; our capacity to do so is rooted in our being creatures of the earth. (Loomer, "The Size" 34-35).

CITIZENSHIP IN A BIOCRACY

I have explored Meland's concept of appreciative awareness and Loomer's concept of size because, in their appropriation of the receptive dimension of the relational self, they provide a powerful undergirding for the notion of citizenship I seek to develop. This concept of citizenship builds on my previous work in attempting to develop the concept of "biocracy."²

Before entering into a discussion of the meaning of biocracy, a few words are in order about the meaning of "democracy." "Democracy" is the combination of two Greek words meaning "rule by the people." It is grounded in the sense of the dignity of every human being simply by virtue of being human. It entails effective participation in the decisions that affect one's life is; the limitation of undue concentrations of power in every overlapping sphere of life, in both institutions and in persons. Politically, this involves the maximum safeguarding of civil liberties and due process of law. It includes institutional systems of checks and balances, although this is no guarantee of democratic practice.³ At larger levels of community, it could entail representative forms of government, at smaller levels it could and would encourage direct forms of democratic participation.

Most democratic theories are hopelessly anthropocentric. In today's world, we need to extend the notion of dignity, on which so much of democratic theory rests, to non-human creatures if we are to

² See my unpublished articles "Dignity, Democracy, and Biocracy," "The Universality and Particularities of an Ecological Democratic Faith," and "An Ecological Democratic Faith and the Current Economic Crisis."

³ J. Ron Engel has contended in private conversation that our system of checks and balances has failed in preventing the slide of the United States towards oligarchy.

develop a non-anthropocentric way of understanding democracy, that is to say “biocracy.”⁴ Positing dignity in sentience, human and non-human, process-pragmatic thought is uniquely suited to this task.

While, in this regard, if, as process thought maintains, the difference between humans and non-humans is one of degree and not of kind, then we need to listen to non-humans in their own voices, in their own terms, in their own integrity. We need to listen to what non-humans themselves are “telling” us.

While non-humans cannot speak in clearly, articulated words and sentences through which they convey their thoughts, we need to recognize that language is a complex form of communication and that non-human animals do communicate; they make sounds, they convey feelings. Even in human communication, non-verbal communication is more basic than the verbal; the nuances of language change with the emotional tone conveyed.

Listening to what the non-human natural world is telling us includes not only individual non-human animals but larger systems as well. For example, having lived in the desert in Arizona for twenty-two years, I learned to tell when it was actually going to rain by looking at the thickness of the clouds. My method was hardly scientific—but I was right with far greater frequency than the weather forecasters. In similar fashion, I learned from a Native American to predict the length and severity winter based on the thickness of the clouds, their formations, and the speed of their movement in early fall

⁴ I am indebted for the idea of “biocracy” to Thomas Berry. See Thomas Berry, “Teilhard in the Age of Ecology,” Video Interview (Mystic, Connecticut: Twenty-Third Publications, 1988).

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If we listen to the non-human natural world, I would maintain that we see hear and see nature's version of "checks and balances" in environmental degradation. Whether we look at global warming, the spreading of the Sahara and Gobi deserts, deforestation, air and water pollution, I would ask whether this is the non-human natural world's way of showing the limits of the human grab for power and domination, of the revolt of the dignity of the constitutive, interdependent actualities that make up non-human natural world?

It is at this point that Meland's concept of appreciative awareness and Loomer's idea of size become important, rich resources for developing the idea of citizenship in a biocracy. As we have seen, both appreciative awareness and size entail being able to take more and more of the world, in all its diversity, into oneself. The world one takes into oneself certainly includes the non-human natural world of which we are parts and which are parts of us. Our very capacity for appreciative awareness and growth in size (in Loomer's sense) is rooted in our being earth creatures.

Thus, in a certain sense, appreciative awareness and size are virtues to be cultivated. We are to cultivate our capacity to take others, human and non-human into ourselves, without being overwhelmed or violating the distinctiveness of "others."

While this view does uphold the active dimension of the self and of citizenship, it is a richer view of citizenship than the modern one predicated on an atomistic self-contained view of the self. The relational matrix of the self, human and non-man, empowers its creativity, its active participation in the life of the political community, reaching toward previously unimagined possibilities of the future.

THE "NOSELF," EMPTINESS, AND COMPASSION

In contrast to most of the Western tradition and Hinduism, Buddhism, like process thought, teaches that there is no "substantial self." It teaches the doctrine of the "no self," the "anatman" in contrast to the Hindu idea of the Atman, the enduring soul that makes a living thing what it is. For Buddhists, as for process thinkers, "the self" is a momentary self, the experiencing of the moment. While the past (not just my own but that of the entire universe!) does flow into the present, the immediacy and intensity of the past is gone. All we have is the experience of the moment. Thus, everything is impermanent—including impermanence!

For Buddhists, believing in the idea of an enduring, substantial self is an illusion, one that is fostered by clinging to past selves that we are no longer. Clinging is the cause of suffering. We can cling to anything: people, possessions, cherished ideas and beliefs, God. Yet, one of the main paradigms of clinging, if not the main one, is clinging to past

selves. We cling to selves that we are no longer, to momentary experiences the immediacy and intensity of which have perished. By doing so, we are preventing ourselves from being the experience of the moment. Once we have let go of clinging, we are free to live fully in the moment, to be the moment of experiencing.

When we have let go of clinging and live fully in the moment, we have reached Enlightenment or Awakening. We have reached Nirvana, which is a way of being rather than a place, when we are the experience of the moment every moment. Moreover, when we have let go of clinging, we become Empty. It is precisely because we are empty that we can become fully the experiencing of the moment. Yet, paradoxically, it is when we are Empty that we are most Full, open and attentive to more and more of the world around us. It is because of the Emptiness that is Fullness that we are able to be compassionate. Our Awakening (to our Buddha nature) empowers us to be compassionate to all creatures.

The Buddhist view of the self, emptiness, and compassion have much in common with the view of the self in process thought and its adaptation in Meland's idea of appreciative awareness and Loomer's concept of size. In Buddhism, as in Meland, and Loomer, empowered by our ability to live in the present, we are to cultivate our capacity to take more and more of the world into ourselves, and thus respond with compassion and creativity.

I can mention Confucianism all too briefly in this paper all too briefly. A key tenet of Confucianism is that the self, dynamic and relational, is in constant need of transformation. A constant, ongoing process of self-cultivation is basic to the ongoing to the transformation of the self, a transformation that entails a growing capacity for empathy towards an ever expanding circle of beings, human and non-human.

Both Buddhism and Confucianism provide rich resources for the development of citizenship in an ecological civilization. An appropriation of Buddhism and Confucianism by process thought, as used by Meland and Loomer, will empower the development of citizenship in a biocracy in which we truly hear the voices of all creatures and stand in a solidarity of kinship with them.

History and Eternity from Tanabe's Perspectives

OZAKI Makoto (Sanyo Gakuen University, Japan)

ozaki@sguc.ac.jp

The attempt is made to elucidate the relationship between history and eternity in terms of the dialectical Logic of Species, advocated by Hajime Tanabe (1885-1962), another pole of the Kyoto School. Tanabe does not presuppose any eternal prototype of history prior to history, but starts from the present situation given in the actual world. History is composed of subjective action and objective being, and is directed towards the future as a moving point or contact point between time and eternity. This shows a parallel to A.N. Whitehead's conception of process constituted by subjective becoming and objective or superjective being with the irreversible direction towards the future. The irreversibility of time corresponds to Tanabe's concept of the future as the actively creating presence of eternity in the world. Time, however, does not exist by or in itself, but is rather created by actual entities in succession, according to Whitehead. For Tanabe, the reciprocal transformation of action and being, or, subject and object, occurs in and through the mediation of eternity as the principle of absolute universality in the field of history. The movement of history and eternity in and through action is interpreted by the dialectic of the triadic Logic of Species.

For Whitehead, the subjective immediate becoming of actuality in the present is negatively converted into the past being which is objectively immortal and functions as the causality influencing on the succeeding actual entities. This structural conversion from subject to object or superject may correspond to Tanabe's dialectic in which the subjective action of the individual is self-negated into the substrative species as the self-estranged or alienated form without the authentic universality. Even if so, however, for Tanabe, there is no objective immortality of the past as the efficient causation, whereas for

Whitehead the idea of nature rather than history seems predominant. While in nature causality prevails, in history the human subjective action, which is ambivalent in doing both of good and evil, is inevitably involved in the contradistinction of necessity and freedom. Although Tanabe attempts to construct a kind of philosophy of history, his view is restricted to the existentialist standpoint as the present-centered without expanding to the original root in the far past as well as the long term future-oriented teleology. In this regard, Heidegger seeks for the historical origin of western metaphysics as the first beginning and for the Last God as the other beginning of a new era of history. His way of thinking is implicitly marked by the Judeo-Christian traditional Messianism as well as Nietzsche's idea of the eternal return in structure. On the other hand, in Buddhist philosophy, a cyclic view of history on a cosmic scale beyond our globe is prevalent, and hence it might be anticipated to synthesize Tanabe, including the Buddhist cyclic view of history, Whitehead and Heidegger in terms of the relationship between history and eternity which is mediated by the human action for the purpose of realizing the humankind universality in the actual world.

Tanabe explores his own unique Triadic Logic of Species in the form of the Dialectic as the foundation of his whole system of thought. He creates a new synthesis of Western and Eastern philosophy on the basis of the traditional Buddhist notion of Emptiness or Absolute Nothingness, the latter of which was first used by his mentor Kitaro Nishida under whose influence Tanabe develops his ideas in a different way from Nishida's. Nishida's system of thought focuses upon the concept of ultimate Place or *Topos* as Absolute Nothingness which encompasses everything in the world. Tanabe is very critical of this seemingly static logic of Place as still substrative in character and further develops his own logic in the form of the Triadic Dialectic of the three parties, the genus or universal, the species or particular, and

the individual. Tanabe's Triadic Logic or Trinity, however, is different from the ancient Christian doctrine of the Trinity in that the latter occurs in the eternal dimension of God, whereas the former takes place in the historical realm in which human activity plays a central role. This means that Tanabe stands by practical action, without resorting to any type of contemplation of truth, and his goal is to bring about the self-realization or self-manifestation of eternity in history through the mediation of free human subjective action, so that his philosophy aims at constructing the sort of philosophy of history.

The relation of time and eternity is crucial for understanding Tanabe's Logic of Species. Eternity comes from the future. The future is a perpetually moving point of eternity in time. Eternity is made to become time through the future. Eternity comes to manifest itself in the present in and through the act of the future. The active mediation of the future perpetually makes eternity manifest in time. This bears a resemblance to McTaggart's idea of eternity as the future, and Moltmann's God as the coming future as well. The difference, however, is that for both McTaggart and Moltmann eternity seems to come from the future non-mediatedly without self-negation in action, whereas for Tanabe, eternity returns to time through the perpetually active conversion in negation from the future as the moving point of eternity. Although eternity as such is unbegotten without the beginning, nevertheless, it contains the temporal dynamism within itself, as the origin of time, and realizes the temporality in the uncertain openness of the future, without surrendering the temporal changeableness into the specious coexistent whole. Eternity comes to the end and always anew begins at each moment of the present. In other words, time, participating in the unbegotten, beginningless eternity in the direction of the past, retains the possibility of the end and the uncertainty of its coming, without being immortal and endless. The past is to be determined and renewed by present activity and is to be exposed to the end as well. The past is no longer the expression of unbegotten, beginningless eternity, but is mediated by the uncertainty of the future and resurrected at each present moment as the higher repetition. That is, the repetition in the present, in which the end is identical with the renewal, becomes a symbol of eternity. The infinite

repetition of the self-negation of eternity as non-being or nothingness is the origin from which time arises, and the subject of making a decision as to unification of the future and the past, necessity and freedom, is none other than the self as the individual existence. Its subjective action entails the repetitive superposition of the present in which the end of the past is converted into the arising of the future through negation. Eternity is mediated by the present moment of negation, and self-negatively becomes manifest and present in time in return, with the result of forming a temporal continuity. The mediator of the unification of the past end and the future uncertainty is the self as the subject of the self-consciousness of Nothingness. Eternity takes place in the present moment in repetition through the active conversion of the subjective self in negation from the future.

Tanabe does not regard the Absolute as self-identical Being without self-negation within itself, but rather regards it as the perpetually self-converting unification of the opposites through negation in action in terms of Absolute Nothingness. This is what is meant by the Buddhist principle of Emptiness (*suyata*) in the modern context of a new creative synthesis of Western and Eastern philosophy. For Tanabe, the principle of Absolute Nothingness has the dynamic structure which displays the perpetual self-negating conversion in action in the process of self-development in history. This is the distinctiveness of his concept of Absolute Nothingness as the most appropriate interpretation of the Buddhist notion of Emptiness. Consequently, he rejects the intuitive identity of intellect with object, as in the case of Nishida, but instead establishes his own standpoint of the perpetual active conversion of the opposites in and through negation in terms of Absolute Nothingness.

Tanabe may be said to be successful in the establishment of the modernization of the traditional Buddhist notion of Emptiness (*suyata*) in relation to Western philosophy, without surrendering itself to such emanation theory as represented by the Chinese philosopher Lao-tu's idea of Nothingness, which is very similar to the Neo-Platonist Plotinus' concept of the One as beyond being from which the world is produced and to which it returns. The authentic meaning of the Buddhist notion of Emptiness excludes

any substantial nature but rather points to non-substantiality of being. Due to its own non-substantiality without original source, everything in the phenomenal world can arise co-dependently. This is the reverse meaning of Emptiness as the co-dependent origination (*pratityasamutpada*). Tanabe rules out any antecedent original source from which the historical world is issued, as in the case of Plotinus' One or the Vedantic *Brahman* as ultimate reality.

Tanabe distinguishes the two different kinds of the concept of the universal: one is the absolute universal, and the other the relative universal. This distinction is important to an interpretation of Whitehead's concept of eternal object as the universal form vis-à-vis its particular instance or ingression into actual entity's concrescence. The eternal objects as the relative universals may correspond to Tanabe's concept of species which mediates between the absolute universal as the genus and the individuals. In this regard, the confusion of them should be avoided and a lucid distinction between them is to be retained throughout.

Although Tanabe attempts to construct the philosophy of history, the emphasis is placed on the isolated point as the individual existence, and as a result, the goal and line of history are attenuated. This may be influenced by his existentialist contemporaries, the earlier Heidegger, Jaspers and Bultmann. In comparison to Christian theology, Tanabe's eschatology is centered upon the present moment of time, without epochal duration of time as a historical period.

Tanabe's Triadic Logic of Species refers to the distinction between the absolute universal as the genus and the relative universal as the species, and may contribute to the analysis of social entities such as the political state and a possible higher union of the world, which modern existentialism fails to grasp in its entirety due to its own individualistic tendency.

Another defect in Tanabe's Logic of Species is that the Dialectic tends to operate at the level of a logical scheme lacking concrete content. The same thing holds true for Nishida. To provide the concrete content, it is necessary for both of them to compare and synthesize their thoughts with the modern scientific and

empirical philosophy of Whitehead who regards reality as process.

What I intend to explicate as the distinctiveness of Tanabe's idea lies in the returning way from transcendent eternity to the immanent historical world, and this is to be borne by the free individual existence as the subject of action which is contingent in history, having the inherent possibility of even doing evil and fault. On the first point so much attention has, it seems to me, not been paid so far, except for the Japanese scholar Senichro Higashi, who touches upon this point implicitly from the Buddhist perspective. In the double way of attaining eternal truth from the side of appearance, and vice versa, what is important is the reverse way of returning from the eternal side of truth to the actual historical world of appearances. The historical background of this thought lies in the Tendai Buddhist doctrine of the perfect harmony among the three realms of truth, with the special emphasis on the second one, i.e., the direction from truth to appearance, rather than the reverse course. In Tendai Buddhism, however, this idea is contemplated without involving the socio-historical practice. The distinctiveness of Tanabe's thought is not as a guide for individual subjects to attain or ascent toward an eternal truth, but, on the contrary, in his analysis of how eternal truth may be realized in the actual world. This is nothing but the returning aspect of transcendent eternal truth to the historical world of human existence, and this echoes Plato's later dialectic depicted in the *Nomoi*, which Tanabe aims at a further development as his own position.

In this regard, the stress is shifted from the eternal God to historical man who can make mistakes and be evil because of the twin possibility of acting on good and evil. This is the problem of radical evil since Kant, and Tanabe was entangled with it. We must situate Tanabe within the modern context of understandings of the contingency of human existence, within the limits of historical freedom. In the light of modern interpretations of the free subjectivity of contingent human beings, Tanabe's way of thinking points out the vivid dynamic activity of the historical dimension on the stage of the history of human ideas. As John Macquarrie points out, even in the Latin Neo-Platonist Eriugena's thought, there

is no historical element of the human existential struggle for attaining goodness on the side of human beings, so that the double movement of procession and reversion, or progress and return, occurs solely in the eternal realm of God, lacking the human existential activity of the struggle to overcome evil and fault in actual history. As a consequence, there is no real historical time or historical reality of time. This is entailed by the contemplative attitude toward truth, of which Tanabe is very critical from the standpoint of the historical existence.

Even though the Logic of Species was motivated by the fact that Tanabe was inevitably involved in the surrounding circumstances of his time, in which the state was committed to the World Wars, and consequently in the theoretical task of justifying the state's existence from a philosophical standpoint, nevertheless, his thought does not immediately lose its validity, but rather exhibits it in the shift of emphasis from the state to cultural-civilizational typology to attain the absolute universality beyond specific particularities of different cultural patterns or zones.

Tanabe already anticipated the coming of the dialogue and mutual transformation of world religions in connection with the political action of the state existence in terms of the Logic of Species more than forty years ago at the time when almost nobody had predicted such a situation in the near future. This shows Tanabe's deep insight into the ideal state of world religion in the coming era. He intends to integrate Japanese Buddhism, Christianity, and Marxism with the view of a reformation of them into a higher stage of world religion. This means that he is neither satisfied with Zen Buddhism nor with Pure Land Buddhism, but rather aims to reform them in such a way that both types of Japanese Buddhism can be integrated with the historical character of Christianity, though the Christian idea of the personal God should at the same time be demythologized in terms of the Buddhist principle of Emptiness or Absolute Nothingness, and with the Marxist socio-historical practice as well.

Tanabe's construction of the philosophy of history is an existential and historical one, which avoids the dualities of an individualistic type of existentialism, devoid of socio-historical extension in the

space-time dimension, or a relativistic type of historicism, that never gets beyond a relativity but merely immanent in the historical horizon, without the eternal dimension. The existential-historical type of metaphysics, which Tanabe claims, denies the one-way emanationist line of thought, according to which history is no other than the self-manifestation or self-unfolding of the Absolute, on the transcendent side of God, where free existential action borne by an individual person as a subject in history disappears, like Hegel's concept of history, as Tanabe suggests.

On the relationship between religion and culture, particularly the debate between Karl Barth and Emil Brunner, Tanabe asserts that religion must not stand by itself in the transcendent realm apart from human society, but, on the contrary, religious truth should appear in the secular world as cultural phenomena. This, however, does not mean the direct, immediate identity of religion and culture, but rather religious truth is to be self-manifested through conversion in negation by means of human existential activity in the realm of culture in which human values are created. Religion and culture are in opposition to one another, nevertheless, they are in the mutual conversion in negation through human free, subjective action. Hence, culture is not automatically unfolded as if it emanated from the transcendent One, but rather is perpetually created anew at each moment of time through the mediation of human existence as the subject of free action.

According to Tanabe, the origin of the world is the unfathomable mystery, unknown riddle for human beings, but on the contrary, only from the end as the already given fact can we commence to think about the world. His standpoint is confined to the human experience, i.e., from below, the horizon of history vis-à-vis from above, the transcendental eternity.

In contrast to the Buddhist cyclic view of history, Tanabe's view of history is limited to the present moment in which the end and the beginning of every present are dialectically unified with each other, without forming a linear durational history. On the other hand, for Heidegger, the other beginning is deeply hidden in the first beginning of western metaphysical history and is to be disclosed and restored.

This is the type of the origin-resuming philosophy, and may be influenced by Nietzsche's idea of the eternal return of the same within the finite scope of history. According to the Lotus Sutra, however, the profoundly concealed eternal origin of the historical Buddha *Sakyamuni* is retrospectively revealed, and the eternal original Buddha is expected to reappear in the eschatological *Mappo* era. This is nothing but the eternal recurrence of the eternal original Buddha in history.

As it is the task of philosophy for Hegel and Heidegger to reconstruct the oldest, archaic source forgotten and hidden in history, so it is the Buddha's salvific aim to restore the innermost essence of human beings sunk into oblivion in the long journey in the remote past in the nascent age.

PROVISIONAL OUTLINE OF THE RELEVANCE OF WHITEHEADIAN PHILOSOPHY FOR AFRICA

Olusegun Noah OLAWOYIN (United Missionary Church of Africa, Nigeria)

olusegunolawoyin@gmail.com

Abstract

The Continent of Africa is known worldwide today primarily as the Continent where people are suffering most on the planet. It is known as the Continent of conflicts and wars, endemic corruption and power-hungry tyrants, poverty, draught and famine. The cause(s) of these negative factors are sometimes traced to the colonial past of the Continent. But it is agreed by all that at present, the fate of the Continent is in the hands of its people; whether to let the past and outside negative influences dominate the Continent or not. However, in many discussions about how to solve the problems besetting the Continent, there has been "... the absence of a coördinating philosophy of life..." The absence of this in the populace would "spell decadence, boredom and the slackening of efforts". (Whitehead, 1967, p. 98) This writer is convinced that "It is our business – philosophers, students and practical men – *to create and re-enact a vision of the world*, including those elements of reverence and order without which society lapses into riot, and penetrated through and through with unflinching rationality." (Whitehead, 1967, p. 99, emphasis added). It is suggested here that 'the vision of the world' that Africa needs is 'Process Philosophy'. A detail working out of this thesis would take volumes and decades to produce. Hence, what is given here is 'provisional outline'. This is the perspective of someone who is convinced of the relevance of this philosophy for Africa.

To Talk about Justice:

Suturing the Whiteheadian harmonious subject to the Badiouan militant subject for the universal subject of *ta me onta* - A Badiouan Response to *Event and Decision*

PARK Iljoon (Methodist Theological University, Korea)

iljoon85@naver.com

This is an attempt to suture Whitehead's subject to Badiou's to talk about justice under the regime of the global market-based capitalism in an age of ecological crisis. Both Whitehead and Badiou are tangential to each other in that they refer to a halting and breaking point of our established system of thoughts and at the same time in that they lure the subject beyond itself. They enable each actual entity to advance in terms of a truth-event of actual entity, but it is so only by bringing the breaking point(s) into our present thoughts. The suture of Whitehead's subject to Badiou's subject means an attempt to explore some breaking points in the former's notion of subject and thereby to connect it to the latter's. The breaking point refers to hiatus that does not mean logical contradiction or separation, but rather conflict and tension for the emergence of a new creativity. In short, the subject is not the endurance or permanence of the self but an aleatory and excessive event to the established situation. It is not by a continuous and smooth endurance but by a temporary and discrete momentum of hiatus that the subject adds some novelty to the established system. As to overcome the modern inhuman, materialistic and mechanical worldview, the ideal of organic harmony based upon organic relationality has been suggested, but what really matters after the modern period is rather our violent grasp of the other(s) when our sticky human relations turn into a form of political relationship so that the organic relationality deteriorate into a blind theory of harmony, which suppresses any form of conflict in our society and which after all becomes a totalitarian. This article attempts to depict a structure of the subject, which to see via Badiou's theory of the militant and resistant subject Whitehead's harmonious subject overcoming conflict and tension. What it wants to draw is the structure of the subject to break through and go beyond the established discourses of power that have sought to cover up the contradictions and injustice of our age. In the meantime, Whitehead and Badiou become harsh critiques to tackle to their opponent's weak points instead of being a harmonious pair, which supplement the respective logics. They seem to disharmonize, but they could be a perfect pair exactly in that they are subtracted from each other and seek a chance to overturn the other. Their disharmony may generate a form of dis/harmony, a virtual harmony embedded into actual conflict and hostile tension, like justice showing itself only amid explicit scenes of injustice.

- The Badiouan critique of Whitehead via Deleuze

It is really hard to find any explicit connection between Badiou and Whitehead, except the fact that both of them try to build up a theory of the subject. Of course, there is no mention about Whitehead in Badiou's writings, as far as is known, for they live in different ages and have different aims with different background. Thus their respective tasks are naturally different. Whitehead held some Victorian influence in his spirit, and Badiou have faced the so-called Post-modern minds. They seemingly have their own curios: God for Whitehead and truth for Badiou. In an age disdaining God, Whitehead preserved God as a logically necessary mechanism for his philosophy. Badiou has tried to hold vanishing figure of truth to talk about justice for the falling spirit of Marxism in the global market-driven capitalism. It is really difficult to find any direct contact between them, but few awkward coincidences. A way for the Badiouan to gain access to Whitehead is to get through by medium of Deleuze, who refers to Whitehead as one of the philosopher of the event, for Badiou's critique of Deleuze can be applied to Whitehead in that both Whitehead and Deleuze share some extended sense of the subject over nature (Faber, Krips & Pettus 2010, xi).

- Deleuzean event

The event in Deleuze derives from his understanding of sense, which is to complement the three propositional relations of denotation, manifestation and signification. The propositional relations make sense due to the sense. However, sense occupies an ambiguous place in the relations. First of all, for Deleuze, sense is a "nonexistent entity, which can only present itself as paradox and non-sense" (Faber, Krips & Pettus 2010, 25). It means that sense is not disclosed when the propositional relations deliver its meaningful network. Rather, sense gropes its way of flight not to be fully captured by the relations. Paradox and/or non-sense are kinds of halting points for the propositional network of meaning. Meanings by propositional relationships break down before paradox and non-sense, for paradox and nonsense collapse the structure of meaningful network. The irony lies in the fact that sense "must be both the expressible or the expressed of the proposition and the attribute of the state of affair" (Faber, Krips & Pettus 2010, 26). It must reside within what it breaks down! The status of sense in the propositional relations depicts the Deleuzean sense of the event. The breaking-down of the existing network of propositional meanings and relations does not result in a total destruction but lead to an emergence of novelty along with the line of flight of paradox and nonsense. That is, sense belongs to

the proposition, but it is also not captured by it and seeks for a line of flight. Put it differently, the sense is not separated from language and propositional relations. Rather, the event of the sense “‘belongs essentially to language; it has an essential relationship to language’ (LS 22)” (Faber, Krips & Pettus 2010, 28). Sense may be called the foundation (or “a non-foundational foundation”) of all meaningful networks, as the human body forms the ground of all structure of meaning for human mind (Faber, Krips & Pettus 2010, 26). Nevertheless, the sense “exceeds any possible capture by signification or truth-conditions in advance” (Faber, Krips & Pettus 2010, 28). It means that the event of the sense “never *is*, but is always becoming” (Faber, Krips & Pettus 2010, 26). For instance, a proposition is “never the last or final proposition, because its entire sense will be altered by the addition of further propositions,” but this ‘sense’ “can never be *said* as such, only *expressed*” (Faber, Krips & Pettus 2010, 26). Thus, sense shows a kind of transcendent immanence in that it exceeds all linguistic capture, but its expression always is “immanent in the proposition as such” (Faber, Krips & Pettus 2010, 27). In this vein, sense “only subsists as *expressed*” (Faber, Krips & Pettus 2010, 27). Thus, the Deleuzian event is that which is none other than ‘becoming’ always seeking for a line of flight or a nomadic move.¹ This Deleuzian event, according to Clemens and Feltham, always begins “in the middle” in that there is no first or final event. Any event is “singular, neither one nor multiple,” and it means that an event is “always part of a series of modifications through further propositions, which constitute the continuing ‘eventing’ of the event,” which is like “the eternal return of sense as continual novelty” (Faber, Krips & Pettus 2010, 28). Put it differently, the event “never stops coming back,” and, in so doing, it is “always divagating and accreting” (Faber, Krips & Pettus 2010, 28).

- The Badiouan critique of Deleuze

¹ Also, given that sense “only emerges as paradox and nonsense,” it comes to the subject “as a force of desubjectification” (Faber, Krips & Pettus 2010, 29). More exactly, sense exceeds the subject but at the same time “makes the manifestation of subjectivity possible” (Faber, Krips & Pettus 2010, 28).

Badiou curiously(?) criticizes Deleuze, who has been a famous defender of difference and a helpful philosopher of the event, and it is not without reason for him. From the Badiouan perspective, the Deleuzian event is none other than “the ontological realization of the eternal truth of the One, the infinite power of Life” by “synthesi[zing] the past and the future in the indivisible continuity of Virtuality” (LM 404/TED 38; recited from Faber, Krips & Pettus 2010, 50). For all events in Deleuze from Badiou’s perspective are “only aspects of a single Event, ‘the Eternal return of the identical, the undifferentiated power of the Same: the ‘powerful inorganic life’ (LM 406/TED 39)” (Faber, Krips & Pettus 2010, 51). For Badiou, the Deleuzian event consists of a single stream of becoming, that is, of the virtuality.

However, according to Keith Robinson, the Badiouan critique of Deleuze for his “ontological precomprehension of being as One” (DCB 20) and his univocal virtuality just misses the target, and it is due to Badiou’s misunderstanding of the Deleuzian One and the virtual. (Faber, Krips & Pettus 2010, 119). For Deleuze, unity refers to the multiple, and thus the One for him is “nothing but the multiple” (Faber, Krips & Pettus 2010, 119). In other words, the Deleuzian univocity is none other than “a synthesis without remainder, the synthesis and affirmation of the immanent multiple” (Faber, Krips & Pettus 2010, 119). Thus, it is virtually one, but actually multiple.

According to Jeffrey Bell, Badiou’s misunderstanding of Deleuze’s thinking of the One is basically associated with his misunderstanding of the Deleuzian notion of the virtual (Faber, Krips & Pettus 2010, 138). The misunderstanding is mainly due to his failure to distinguish the distinction of the virtual/the actual from that of the actual/the possible. The virtual is not the same as the possible at all. The reality of the virtual does not depend upon its realization in the actuality, while the possible is not real at all until it will be realized in the actuality. The example of the virtual offered by Deleuze is “the linguistic multiplicity” that is “a virtual system of reciprocal connections between ‘phonemes’ which is incarnated [i.e., actualized] in the actual terms and relations of diverse languages’ (DR 193)” (Faber, Krips & Pettus 2010, 139). In this linguistic multiplicity, the phonemes and their relations are “not actual, meaningful terms” until they are incarnated in actual terms (Faber, Krips & Pettus 2010, 139). However, they are also “no less real than” the actualized terms (Faber, Krips & Pettus 2010, 139). Their reality does not depend upon their actualization. The virtual is real, but may not be actual. This virtuality is the source of the new coming over beyond the existing. In this sense, the virtual refers to “the transcendent object” or “the metalanguage” (DR 193; Faber, Krips & Pettus 2010, 140). Here the transcendence is not outside

the actual but rather radically immanent within it. Thus, the virtual One in Deleuze only refers to the transcendental immanence of the Multiple. With regard to Badiou's critique, the Deleuzian virtual is not the unifying and omnipotent One but the Multiple giving birth to all differences. In this sense, Badiou may completely misunderstand Deleuze.

From a different perspective, according to Phelps, the real problem of Badiou with Deleuze is not so much the One as the becoming, that is, as "the way in which the equation of the event with becoming in [Deleuze's] thought tends to deny the possibility of a radical break with or reorientation of being" (Faber, Krips & Pettus 2010, 53). It has to do with Badiou's understanding of the event. For him, the event "a pure break with becoming rather than being coextensive with becoming" (Faber, Krips & Pettus 2010, 53). The becoming is still under the existing control of the state of the situation, which conceals the path to truth and offers the market-driven substitution to the consumer subject, producing a false self-recognition. For Badiou, the state system does not offer any exit, and it holds everything under its capitalistic control. It ceaselessly creates the product as the substitution for the truth, offering a feeling of satisfaction to the consumer subject. Thus, what the subject needs to get access to the truth is a way out of the state system through the breaking interruption of the event, a radical rupture with the state of the situation and its encyclopedic knowledge. Thus, the event is a creation of something new, or an advent of the new, out of the void. It means that the Badiouan event rather "creates another time rather than being tied to the continuity of time" (Faber, Krips & Pettus 2010, 54). This is the whole point when Badiou criticize Deleuze as still clinging to the One. We remember that Whitehead speaks of the becoming and the event. Just as both the event and the becoming are intimately united in Deleuze, so is the case in Whitehead. Thus, the Badiouan critique may be well extend over to the Whiteheadian notion of the event, which is a nexus of actual occasion whose another name would be the process.

- The Whiteheadian Event

The whole point of Badiou's critique of Deleuze lies in the fact that Deleuze tends to reduce the subjectivity "to a nonhuman perspective (either cosmic or molecular) and risks ignoring the specificity of actualized perceptual difference—the difference of the human, of women, of the animal, etc, all 'external' differences for Deleuze, effects of the more obscure processes of 'internal' difference, a difference that differs from itself" (Faber, Krips & Pettus 2010, 122). This reduction can make sense, only if one understands that Deleuze "persues the 'turn' beyond individual human experience into an 'inhuman'

world, an ‘any-point-of-view-whatever’ teeming with ‘pre-individual singularities’ and ‘non-personal individuations’ at that point in their genesis when these elements are not yet captured in the form of the self or the person, the universal ‘I’ and the individual ‘me’” (Faber, Krips & Pettus 2010, 123). That is, all forms of (small and individual) difference may be the temporary manifestation of the invisible and ungraspable cosmic ‘I’ or Self or One. In so doing, Deleuze wants to go beyond a form of anthropocentrism, which has derived from the Cartesian model of the subject and has caused the human cruel and tyrant mastery of the world and nature since the modern times. However, for that purpose, Deleuze also forecloses the subject with nothing but its functions “both to universalize and to individuate” (Faber, Krips & Pettus 2010, 123). Thus, in Deleuze, philosophy “becomes a *‘theory of multiplicities* that refers to no subject as preliminary unity’ (PC 95)” (Faber, Krips & Pettus 2010, 123), and it means that there is no possibility of the revolutionary subject at all. As a matter of fact, Deleuze refuses any revolutionary and resistant activity, and he instead insists a nomadic flight as a resistant gesture, a flight from the ruthless state mechanism. Thus, for Deleuze, the subject, if possible, is only the “virtual cosmic subject” (Faber, Krips & Pettus 2010, 126). His “rhizomatic continuity of becoming” ends up in “the displacement of the ‘subject’ of the philosophical tradition and perhaps a displacement of even the generalized subject of process in Whitehead in favor of an assemblage of the ‘haecceity type’ (TP 265), a mode of individuation that consists entirely of relations of speed and slowness, of movement and rest between molecules, particles, affects” (Faber, Krips & Pettus 2010, 126).

Then, how would Badiou criticize Whitehead, for whom, any being itself is “event”² (Faber, Krips & Pettus 2010, 120). Given that Whitehead’s *Process and Reality* is about the processual description of the subject-superject, it thus seems that the Deleuzian bridge to Whitehead would not work at all. However, one needs to remember that Whitehead “generalizes from a human subjective point of view yet reaches beyond any individual consciousness” (Faber, Krips & Pettus 2010, 117). The Whiteheadian understanding of the event is

² For Whitehead, the term ‘event’ is more general than actual occasion and refers to “a nexus of actual occasions, inter-related in some determinate fashion in the extensive quantum” (Whitehead 1978, 73). Thus, for Whitehead, an actual occasion is none other than “the limiting type of an event with only one member” (Whitehead 1978, 73). Put it differently, the event presupposes a nexus of actual occasions that may be extended over to the entire process.

“carried though in his generalization of the subject,” which extends beyond human experience and “thereby risks the accusative claim of anthropocentrism, the swallowing up of non-human differences by finding analogies with human perception throughout nature” (Faber, Krips & Pettus 2010, 122). Although there are clear differences between Deleuze and Whitehead in that the former subjectivizes the cosmic natural force in the form of the virtual one, vanishing human individual subject in a way for it to be no longer unique, and that the latter “ ‘reforms’ the subject” in a way to “[remove] it from any exclusive attachment to the realm of human cognition and generalizes its form across beings but retains its function of (metaphysical) individuality”, both Deleuze and Whitehead share one perspective that the becoming and the event are not separated but united (Faber, Krips & Pettus 2010, 124; cf. PR 167). Thus, the subject in Whitehead is quite different from that in Badiou whose militant fidelity is to illegal truth.

As mentioned above, the Whiteheadian subject does not necessarily mean a human subject. It is the subject of actual entity and that of the event. The ultimate unit in Whitehead is an actual entity. It is the basic unit of nature and, in this sense, it may be a cosmological basic unit of the event. Every event is constituted in terms of the dipolarity of the mental and the physical pole. An emerging actual occasion takes the casual data from the past and reconstructs it with the divine initial aim through the presentational immediacy. During the process, the actual occasion forms its subjective aim, and it is passed over to the ensuing occasion(s) in the form of the superject after the completion of its concrescence. The individual process of actual occasion does not last very long, but the entire nexus of actual entities creatively advances. The point with regard to the event discourse is that, for Whitehead, the multiples ‘becomes,’ and this becoming is not a change from a state to another.³ The process of becoming is not just a change, minor or major. In the Whitehead universe of becoming, the mental pole can “explore for possibilities (i.e., multiplicities)” and “the mental functioning ... ‘introduces into realization subjective forms conformal to relevant alternatives excluded from the completeness of physical realization’ (AI 259)” (Faber, Krips & Pettus 2010, 150). What is introduced is none other than something new to the passing actual occasion. This new thing, novelty is “the very essence of life,” and it “occurs [only] when there is a discord between the physical and mental poles” (Faber, Krips & Pettus 2010, 150). In this sense, the discordant feeling is the basis of “progress as adventure” (Faber, Krips & Pettus 2010, 151). Thus, Jeffery Bell expresses it as the following with some Deleuzean flavour: “[k]ey to the adventure of ideas is the ability of the mental pole to access the nomadic, anti-social actual entities that have not been actualized within the complete physical realization of a social nexus, or, more simply, that have not yet become facts” (Faber, Krips & Pettus 2010, 151). In other words, in Whitehead, there is “no pre-established harmony, no pre-determining completeness, but rather

³ In contrast, in the Leibnizian monadic universe, there is certain change happened, but only according to the harmony of the whole. That is, in the Leibnizian universe, “each monad expresses the ultimate fact that is the pre-established harmony of the universe,” and this change for harmony blocks any novelty from entering into it (Faber, Krips & Pettus 2010, 150).

there is order and chaos” (Faber, Krips & Pettus 2010, 151). Thus, “the actual world ... is neither ‘purely orderly’ nor ‘purely chaotic’ (PR 131)” (Faber, Krips & Pettus 2010, 151). Does it sound like the Deleuzian “chaosmos”?

What especially makes Whitehead different from Deleuzian way of thinking is the role of God, for there is no God in the Deleuzian becoming. For Whitehead, “what assures the successful balancing of social and nomadic actual entities, order and chaos, is God” (Faber, Krips & Pettus 2010, 152). According to Bell, the Whiteheadian God “prevents chaos from gaining the upper hand and assures the successful territorializing of nomadic actual entities into societies, or, as Whitehead puts it, God ‘does not create the world, he saves it’ (PR 408)” (Faber, Krips & Pettus 2010, 152). However, God is not a transcendent reality in the heaven in any sense, but rather “the chief exemplification of the process whereby discordant feelings becomes resolved through the attainment of perfection, or God is the chief exemplification of adventure” (Faber, Krips & Pettus 2010, 152). After all, the becoming and the event with the logical role of the divinity are creatively united in both Whitehead and Deleuze. Then note that this is what Badiou radically criticizes Deleuze, and, if so, he would do the same to Whitehead.

For Badiou, the subject is militant and radically resistant against the becoming structure of the existing state of the situation. For truth is always outside the system which means that truth, if it exists at all, is disclosed as distorted or twisted due to the subjective structure of desire. Thus, to see the truth for the situation, the subject always tries to find a hole or breaking point within the state. The truth is what the established structure regards as a non-existent, that is, as *ta me onta* (those who are not [1Corinthian 1:27]). Thus, the subject within the situation is “posited as void, irreflexive and objectless, subject only of the event” (Faber, Krips & Pettus 2010, 122). For the event, the subject has to find the evental site where excrescent multiples reside. There the subject “as a local configuration of a generic truth procedure” generates the truth for the situation (Faber, Krips & Pettus 2010, 122). Then, with his/her fidelity to the event of the truth, the subject presents the event with his/her “interpretive intervention” (Badiou 2007, 181). It is a decision whether the event belongs to the situation, and Badiou thus calls it a “cut” (Badiou 2007, 181). If the event turns out to belong to the situation, it is called “ultra-one,” because it “falls under the count-as-one,” which is the operation of the situation (Badiou 2007, 182). It does not mean that the event becomes the One Badiou strongly rejects. Rather, the presentation of the event by the subject is a subjective interpretive decision to name at the evental

site the void which cannot be known to the situation otherwise. Here, the Badiouan subject is from the beginning a human subject, maybe too human. There is no possibility of any animal subject, because the subject operates the interpretive intervention along with the generic truth procedures. If so, Badiou's subject of the event "risks anthropocentrism" obviously because "only 'Man' thinks" (Faber, Krips & Pettus 2010, 122).

The key point here between Badiou and Whitehead-Deleuze is that Badiou's subject "emerges with the event in its revelation of the void," which does not belong to the state of the situation and which thus cannot be counted as one (Faber, Krips & Pettus 2010, 124). What Badiou suggests with regard to the event is that it is a radical rupture with the becoming structure of the situation. The event is not counted as one by the situation, and it thus is regarded as the void, as non-existent.

- *Clinamen* in Badiou and *khora* in Whitehead

Thus, the key point between Badiou and Whitehead, and possibly Deleuze is about their understanding of the subject and its role, especially in politics. Although there is no explicit mention about the subject in Deleuze, according to K. Robinson, one can find at least a trace of the subject in him: virtuality or the virtual time (Faber, Krips & Pettus 2010, 126). Thus, according to Robinson, Whitehead enlarges human subjectivity beyond itself, extending it over nature, whereas, for Badiou, the subject is human along with his/her fidelity to the event of the truth and his/her interpretive intervention to talk about justice.⁴ **My first argument** in this paper is that the continuity for Whitehead (and Deleuze) and the discontinuity for Badiou between the event and the becoming derives from their respective reference to *khora* and *clinamen*.

- Whitehead's *khora*:

⁴ Robinson summarizes it as following: "Deleuze seeks the non-human becomings in the human whereas Whitehead looks for humanlike becomings in the non-human and Badiou a human fidelity to the immortal" (Faber, Krips & Pettus 2010, 123).

Almost at the end of the book, *Adventures of Ideas*, after discussing Plato's seven generalities, Whitehead says, "Something is still lacking" (1967, 284). This 'something' is quite like Plato's Harmony, yet it has its own inward dynamics, which is the divine eros, unlike Plato's. As a matter of fact, it has some names such as 'creativity,' *khora*, and 'divine eros' (Park 2006, 134-135). In Plato, *khora* is very passive without its own dynamic, but, in Whitehead, it is very active and dynamic, for he emphasizes the creative advance. Thus, Plato's static eternal being turns into the divine eros in Whitehead to lure things toward their actualizations. Thus, creativity emerges when *khora* and the divine eros are united. *Khora* refers to the place (or, according to Faber, a "non-local place" or a "placeless place" [Faber, Krips & Pettus 2010, 219]) of creativity without any fixed location. The divine eros refers to its inner dynamics. Along with these two, the process creatively advances. The goal or destination of this process is to Peace, which is for Whitehead the "Harmony of Harmonies" (1967, 285).

For Whitehead, a multiple means a disjunctive universe, and an actuality means a conjunctive universe (1978, 21). The disjunctive and the conjunctive universes are not separated and independent. Rather, the multiple disjunctive pluri-verse(s) is conjunctively united into the unifying concrescence of each actual entity. In this way each universe, that is, each actuality contains all the levels of connection to things in the universe. However, the Whiteheadian universe is always and already the pluri-verse, for the uni-verse of each actual entity hangs on to others. Thus, to reach at Harmony of Harmonies, the Whiteheadian universe still needs something to put all the actualities together. Here, Whitehead introduces *khora* for Harmony. The need for *khora* is due to the cellular structure of each actual entity. In other words, when each actuality has its own uni-verse and forms its singular subjectivity, the interconnection of them does not foreclose the individuality of each of them. Just as the cellular unity does not guarantee a unity on the level of organism, the integrity of each actual occasion does not necessarily prove the unity of societies.

The usual translation of *khora* is 'receptacle' and Whitehead uses this translation (1967, 122; Emmet 1932, 224). Plato calls it "the foster mother" of all becoming, and Whitehead "a natural matrix for all things" (Whitehead 1967, 134). For *khora* contains every actuality within itself in a way that it does not have its own form so that it is not "abstracted from those actualities" (Whitehead 1967, 134). Given that Harmony is the unification of the many into one, *khora* is "the time-space of the adventure of the eternal and the locus of actualizing the Goodness of Harmony" (Park 2006, 148). That is, *khora* is "the material locus of creativity" (Park 2006, 148). *Khora* receives the one and the many together and preserves them in a creative, harmonious and peaceful way. Put it differently, *khora* is "the creative integration of ... one and the many" (Park 2006, 149).

Whitehead exemplifies two locus of *khora*: the extensive continuum and personal identity. First, actual occasions on the extensive continuum need something to support them. Although Whitehead's philosophy of organism aims at a relational philosophy, actual relations of actual occasions are ambiguous in that each actual occasion does not have direct connection to others. They are related only through the causal efficacy (connection to the past) and the presentational immediacy (connection to the future anticipation via the dipolar nature of God).

How do they hang on to the present extensive continuum? Just as *khora* in Plato supports the combination of form and matter, the extensive continuum supports the creative union of the mental and the physical (Nobo 1986, 22). Whitehead analogically explains *khora*(receptacle) as the “empty space” of Newton which was regarded as “the sensorium of God” (Whitehead 1967, 135). In modern terms, *khora* corresponds to the notion of the space-time in that the latter is “bare of all forms” like the Receptacle (Whitehead 1967, 150). The extensive continuum as the Receptacle is “potentiality for regions itself,” which means its divisibility (Nobo 1986, 208). There actual occasions are the realization of “a region of extension,” but not that of “the extension if its region” (Nobo 1986, 209). It means that actual occasions depend upon the divisibility of the extensive continuum. It further means that an actual entity becomes, and does not realize, its extensive region (Nobo 1986, 209). Thus, one may say that actual occasions are none other than “the immanence of the extensive continuum (Park 2006, 148). By the same token, there is no actual entity without the extensive continuum. However, the extensive continuum cannot be defined because it is “bare of all forms” (Whitehead 1967, 150). It emerges only when each actuality actualizes the “potentiality for regions itself.” Thus, it cannot be seen, defined, or explained in itself. It is assumed or logically presupposed for the emergence of actual entities. It is the only one that guarantees harmonious unification of one and many and its creative advance.

It is exactly the same case in personal identity. Each actual occasion cannot guarantee any continuity and succession. Their higher organic order may have a sense of successive continuity, although temporarily, but the succession of the actual occasions in the form of identity cannot be logically guaranteed. For Whitehead, *khora* is needed here for the personhood. How do I know that the I consisting of innumerable actual occasions in the present is the same I in the past? Philosophically and also scientifically, this is a very difficult question to answer, although it seems stupid and thoughtless for our commonsense. Whitehead introduces *khora* for supporting the successive continuity of the personal identity. It does not mean that *khora* is the human soul for him, but rather that the human soul is one of the examples of *khora*. In Whitehead’s words, *khora* is “the general principle” that “guid[es] the constitution of nature as a whole and the constitution of the individual human person” (Hosinski 1993, 65). Even Whitehead cites the part of *khora* in Plato’s *Timaeus* with his replacement of *khora* with ‘personal unity’ (Whitehead 1967, 187).

In addition to the notions of the welter of events and of the forms which they illustrate, we require a third term, personal unity. It is a perplexed and obscure concept. We must conceive it the receptacle, the foster-mother as I might say, of the becoming of our occasions of experience. This personal identity is the thing which receives all occasions of the man’s existence. It is there as a natural matrix for all transitions of life, and is changed and variously figured by the things that enter it; so that it differs in its character at different times. Since it receives all manner of experiences into its own unity, it must itself be bare of all forms. We shall not be far wrong if we describe it as invisible, formless, and all-receptive. It is a locus which persists, and provides an emplacement for all the occasions of experience. That which happens in it is conditioned by the compulsion of its own past, and by the persuasion of its

immanent ideals (Whitehead 1967, 187).

Here one can clearly see why Whitehead introduces *khora* for his metaphysics. To complete his description of harmonious unity of all the becomings, he needs a “third term,” like Plato. This is the context in which *khora*, Receptacle, is referred to as “the community of the world, which is the matrix for all begetting, and whose essence is process with retention of connectedness” (Whitehead 1967, 150). The Receptacle is a necessary relatedness for every process in the world, yet it in itself does not have any specific relatedness. What I want to point out here from Whitehead’s use of *khora* is that the entire emphasis of Whitehead’s philosophy of organism is upon unity and harmony, toward which all the process of becoming proceeds. This Whiteheadian emphasis is in stark contrast with the Badiou’s emphasis upon the militant spirit of the subject.

- Badiou’s clinamen:

Rather than finding the spirit for unity and harmony, Badiou is very confident that the subject constitutes itself in the form of the Two. In *The Theory of the Subject*, he argues that the dynamical contradiction of the Two generated between the *splace* and the *outplace* is not secondary to the established order, but rather the foundation or ground of the order, for it produces the movement of the whole structure. This structure of the Two is none other than the subject. The subject of militant resistance has its reference in the deviational movement of clinamen. Then in *Being and Event*, the subject is transited to that which uncovers the truth through interventional interpretation and faithful generic procedures out of the being of the void. There the subject becomes a militant savant arguing the generic truth by means of enquiries of fidelity in its local situation. Nevertheless, the subject is not a being. It is just a vanishing term mediating the event(s) by its intervention and the operation of fidelity.

For Badiou the subject is from the beginning the Two. The subject as the Two is seen in his terms, *splace* and *outplace*, in *Theory of the Subject*. Badiou traces this Two back to Hegel. According to Badiou, Hegel’s One just shows the original scission within the One itself. Unlike Hegel, who regarded history as the realization of the one *Geist*, Badiou rather think that the scission is originary, not derivative. In other words, the Two gives birth to the notion of the One, and not vice versa (Badiou 2009, 5). There is an inerasable trace of the Two between the whole and the One (Badiou 2009, 30). The notion of the One derives from the feeling that the whole is not exactly what it is, for the whole is just “a name for the aggregation” of all belonging to it (Badiou 2009, 58). In so doing, it interiorizes the exterior within itself to impose unity upon the whole itself. This is the forming of the *splace*, that is, “the space of placement” (Badiou 2009, 10). This interiorization of the exterior is intimately

connected to the exteriorization of the interior force, because, by interiorizing the exterior, the force in fact alienates itself and this is “the expansive wrenching away from itself” (Badiou 2009, 35). Basically, as the aggregation of all belonging to it, the whole does not refer to any unity or unifying one. Rather it refers to the Multiple. In this sense, “a whole is always the death of a One” (Badiou 2009, 58). At any rate, the imposition of the one upon the multiple whole for unity generates the alienation of itself, and, to overcome this alienation, which has been given the situation of the placement according to the One, a force resists against the structure. This heterogeneous and a-structural inner force is called “the *outplace*” (Badiou 2009, 10). The subject or subjective force is constituted by these Two of the *splace* and the *outplace*. Thus, the subjective force is not the One or the whole but the Two from the beginning. The *outplace* is an “aleatory process” to purge itself from the impure alienation (Badiou 2009, 38). This *outplace*, the purifying force, always introduces novelties into the *splace*. This introduction of the novelty is justice, for what repeats within the *splace* works according to the coercive mechanism of the One. What is introduced as new is a response to the inner cry against the injustice, which the coercive force places upon the space.

Badiou finds his textual reference in Epicurus for the militantly resisting subject. According to Epicurus, in the beginning, there were only the void and the atoms, which only vertically fall down in it. The void was structured by the identical movements of the atoms in it. If this strong difference between the void and atoms was firmly maintained, there would be no being at all. However, we know that there is “something, not nothing” (Badiou 2009, 57). It means that some atoms started to deviate from the vertical falling of other atoms and to cause collision with them, and, from the collision, everything generated. This deviating atom is called “clinamen” (Badiou 2009, 58). What attracts Badiou here is the deviation of clinamen from the standardized identical movement of the placement. Then, clinamen is none other than “the *outplace* of an unlocatable, deregulated movement” (Badiou 2009, 58). Put it differently, clinamen is “a-specific, beyond necessity, absolutely out-of-place, unplaceable, unfigurable: chance” (Badiou 2009, 59). Chance is the womb for the emerging subject. Without deviation, without resistance, there would be only structure, the space of placement.

The subject for Badiou is the one to bring the excluded in the situation. For that, it refuses the established system of the encyclopedic knowledge, for it experienced the event of the truth to which it hold on with her fidelity. This subjective fidelity to the event means none other than its radical rupture with the existing. It is seen as resistance against the state of the situation. Instead of pursuing the harmony and unity of becoming, the Badiouan subject decide to be faithful to the event. Here in this Badiouan understanding of the event, becoming cannot be identical with the event. Rather the event deviates from the existing stream of becoming in a militant way.

- The suture of A.N. Whithead to A. Badiou to say justice

For Badiou justice is as a matter of fact the barred. The real can operate in the matrix of desire because it is barred. In this sense, justice is barred. However, it is really difficult to experience justice as barred within our judicial system, because the legal system apparently seems to fulfill the ideal of justice in the society. In fact, justice is the justification of law. Nonetheless, justice is “rare,” and injustice is actual and everywhere. This is the vivid actuality before us. It gives us a sense that the law of justice may be a strategy to conceal the living violence and injustice behind the law. If this sense were unfortunately right, the only way to look the reality of justice straight in the face would be to gaze at the spot where it is as distorted, that is, where the actuality of injustice prevails. Justice cannot be experienced, for it is absent and this absence causes our desire for it. This is the law of desire. Thus, justice is from the beginning barred by the law of desire. The law or the judicial system only offers us supplements for justice, but the supplements never gives us a perfect satisfaction or it cannot do it. This is the original betrayal or the original sin of law. To say that justice is a barred object does not mean that the subject prohibits justice, but that it is the object barred by the system or the state. Thus, the subject of truth and justice is the barred subject, which cannot reach at what it desires. What the subject can gain access to is only the supplements for it. The only site to see the forbidden object is that where it is twisted by the state. The eventual site of justice is not fixed or permanent. Rather, it has to be found by the faithful subject through its tenacious enquires along with the generic truth procedures. Moreover, it is not one-time event but it rather would happen to the subject when it finds a hole of the state of the situation or when it punches a hole to it. Thus, the event is not the becoming. Rather it is a deviation from the existing structure of becoming, for truth at the outset is outside the becoming structure.

In this vein, for Badiou, the event is not to express harmony or becoming but to say about a hiatus of the state of the situation or a hole of the encyclopedic knowledge system. However, the event is not just about something special or idiosyncratic or genius. The event “announces the advent of a singular universality that operates in utter difference to and refuses integration in any established ‘regime of discourse’,” and it is a singular voice for justice and equality (Faber, Krips & Pettus 2010, 55). Truth and justice come from a singular event into the situation, and their appealing force is universal. They are not idiosyncratic to certain individuals. Rather, they are beyond individual situation(s). they are transcendent in the sense that they are absent from the current situation. Thus, the event is the impossible from the situation and its state. The impossible means that it is illegal and anarchic from the state of the situation.

For Badiou, politics “works toward ... the impossibility, in the situation, of every non-egalitarian statement concerning this situation’ (MP 93)” (Faber, Krips & Pettus 2010, 156). It means that it is “a thought of the singularity that cannot be included within a situation” (Faber, Krips & Pettus 2010, 156). Due to this, the political subject performs “a militant resistance to the inequalities of the situation” (Faber, Krips & Pettus 2010, 156). This politics “breaks with the politics that is” and it is in this sense “revolt” (Faber, Krips & Pettus 2010, 156). According to Bell, for Badiou, “the egalitarian maxim is effectively incompatible with the errancy of statist

excess,” and thus “what is needed for the militants subject to the truth of the political event is to challenge this very indecision, to bring into clarity the ‘measurelessness in which this power is enveloped’ and most especially the inequalities this power produces” (Faber, Krips & Pettus 2010, 156). For Badiou, this radical rupture with the situation is carried out by the thought of the universal or the generic, equality, and this is why the Badiouan subject dreams of a revolution.

Then, can we suture Whitehead to Badiou? Can we find a sense of dis/harmony in Whitehead to talk about justice? It is really hard to find the word ‘justice’ in Whitehead, although he mentions ‘truth’ along with ‘beauty’ and ‘goodness’ many times within his texts. However, our present age may need a voice of justice when it is really ‘rare’ around the globe under the global capitalistic system. **My second argument** in the paper is that one can find dis/harmonious moments in Whitehead so that both Whitehead and Badiou can talk about justice together that is barred to the subject.

Indeed, in the structure of the Whiteheadian subject, one can see some sense of dis/harmony, which may lead the entire process to a revolutionary one. First of all, there is a tiny gap between the subject and the superject. According to Whitehead, an actual entity is “at once the subject experiencing and the superject of its experiences,” and it thus is always “subject-superject” (1978, 29). Although the subject and the superject are integrated in the process of an actual entity, they are distinguished. For example, “[i]n the analysis of a feeling, whatever presents itself as also *ante rem* is a datum, whatever presents itself as exclusively *in re* is subjective form, whatever presents itself *in re* and *post rem* is ‘subject-superject’ ” (Whitehead 1978, 233). What one has to note here is the change of the gaze. The subject is an internal constitution according to its subjective form, but this subject becomes the superject when the ensuing occasion accepts as part of the data for it. It means that the superject is the subject seen to the other ensuing occasions. Here one can see some sense of difference between them. The subject and the superject cannot be the same (Park 2009A, 16). For instance, the I, of which I think as my-self, cannot be the same as the I, of which the other(s) around me think. The subject-superject is the mark of dis/harmony, which cannot be concealed by Whitehead’s noble aim for harmony and peace. The superject risks being betrayed and abandoned by the following process(es), and it does not know any satisfaction the subject enjoyed, because it is “*post rem*.”

The second instance of the dis/harmony in Whitehead lies in his term, the initial subjective aim. The aim is initially given by the divine lure, but it later takes its own subjective form. This process may be well and smooth. However, the divine aim given can be felt as the aim of the other, or may be of the Other, so that it would become resistant against the existing. This divine aim enters into the actual occasion in question and takes the place of the subject along with its subjective form. Whitehead never mentions a possibility of conflict or competition happening between the divine aim and the subjective form of the concrescent occasion. Thus, he often uses the term “initial subjective aim” (Whitehead 1978, 108). Whitehead here forgets one commonsense

thing: God and His/her calling us often have been felt as the Other and/or the voice of the Other within. Truth is always and already the Other to the self being constituted by the existing mechanism of the situation in that our sense of the identity of being my-self is based upon our cognitive mechanism of “auto-affection” (Derrida 1976, 166). Then, one may say that the subject is always disruptive to the established system, and, in this sense, it is “aleatory, excessive, eventful and supernumerary” (Park 2009B, 178). The point of the term ‘initial subjective aim’ is that it becomes the subjective aim of the actual occasion without any possibility of rejection or betrayal. This subjective aim disappears in the moment of the superject. Although its subjective form may be felt by the subsequent occasion, it is only as the data for it. In this sense, the Whiteheadian subject is like a “vanishing mediator” (Žižek 1993, 33). Here, let’s note that *khora* is understood as *différance* by Derrida. It is Derrida’s term to describe the originary force as differing and deferring (Derrida 1991, 300). What Derrida wants to say of by the term is not the concern here, but what I want to sympathetically share with the term is a sense of ‘deviation.’ As a matter of fact, the reason why Whitehead aims at attaining harmony and peace conversely indicates or can be interpreted to indicate, that harmony is absent, at least for now. Here one may possibly construct the Whiteheadian militant subject of resistance against the existing privileged under the global competitive, market-driven capitalism.

Indeed, according to Roland Faber, like Badiou, Whitehead also “expects the change to be issued not by an analysis of preconditions, but by a *revolutionary* process (cf. AM 114), perusing the idea of a universal brotherhood of human beings and skepticism regarding the natural givenness of social structures” (Faber, Krips & Pettus 2010, 195). Metaphysical discourses are not about ‘givenness’ or ‘being’ but about becoming. By critically questioning on the becoming of beings, ontology politically deconstruct the limitations of the hidden abstractions of the established system. The ontological interpretation then becomes “an activity” to deconstruct the arbitrary foundation of the existing system. In this sense, metaphysics becomes “revolutionary” (Faber, Krips & Pettus 2010, 197).

Nevertheless, the Whiteheadian revolutionary spirit still lacks something very important to talk about justice. It is due to the fact that, although the Whiteheadian onto/politics asks for “a political activation of freedom and equality,” it at the same time “tolerates the possibility of differences in the equality and intensity of power activated” (Faber, Krips & Pettus 2010, 211). This tolerance is to preserve the creative value of divine persuasion, and it is a really beautiful idea. However, given that “the powers are not equal,” this tolerance may turn into hypocritical reticence of intellectual privileged middle-class facing injustice and power (Faber, Krips & Pettus 2010, 211). The real problem of Whitehead does not lie in “the disconnection of ontology and theory of subjectivity”⁵ but the *plasticity* of their ontology of becoming to *tolerate* structures of slavery and still to *demand* a

⁵ Indeed, according to R. Faber, “Badiou’s *duality* of ontology and theory of subjectivity is in peril of relapsing into in the hierarchical disconnection of cosmos and human beings, mind and body, and ontology and politics. It precisely *creates the conditions* of the prevalence of slavery out of the ‘barbarious substratum [that] had to be interwoven in the social structure, so as to sustain the civilized

democratic process” (Faber, Krips & Pettus 2010, 215-216). The plasticity of their ontopolitical position may permit thousand ways to avoid to talk about justice. Thus, it is really hard to hear any voice for justice in Whitehead. Then, Faber asks, “where is the radical democratic move that hinders and effectively abolishes these concrete hierarchies—since they emerge out of an anarchic ontology of ‘aboriginal disorder’ (PR 95)—to become or relapse into the imperial States of slavery?” (Faber, Krips & Pettus 2010, 216). It is due to Whitehead’s understanding of power or force. For Whitehead, each society is “confronted with power: coercive and persuasive power” (Faber, Krips & Pettus 2010, 245). According to him, “[t]he intercourse between individuals and between social groups takes one of two forms, force or persuasion. Commerce is the great example of intercourse in the way of persuasion. War, slavery, and governmental compulsion exemplify the reign of force (AI 83)” (Faber, Krips & Pettus 2010, 246). Any intercourse would involve elements of conflict, and conflict is not necessarily a disaster but “a chance to advance towards a better life” (Faber, Krips & Pettus 2010, 246). Conflict would give us a choice, “advance or decadence” (AI 274-5; Faber, Krips & Pettus 2010, 247). Thus, although the “final aim of civilization is peace, this peace is “not just an absence of violence but a living experience of overcoming conflict through the novel advance into contrasts” (Faber, Krips & Pettus 2010, 247). As a matter of fact, any civilized order keeps being “always endangered by its excluded (and exclusive) violence, the *illusion* of unconditioned self-creation” (Faber, Krips & Pettus 2010, 247). To choose persuasion over coercive violence is to have “some transcendent aim,” which is the chief function of God in Whitehead (AI 85; Faber, Krips & Pettus 2010, 247). Here Whitehead has a kind of dualistic thinking of power: coercive and persuasive. What if every force is the same and all of them are inherently violent, as Derrida would say?(cf. Derrida 2004, 44-47). What if every force is always and already violent, originarily violent?

Deleuze may side with Whitehead to defend his persuasive strategy in coping with the matter of injustice. Under the global system of capitalism and market based upon infinite competition, the radical distinction between the privileged and the disadvantaged is not always helpful, for the disadvantaged deploy a strategy of the ‘outsider’ and the ‘excluded’ “as a means of obtaining some small political advantage” (Faber, Krips & Pettus 2010, 345). Thus, it may be really doubtful whether there is any real outsider, except those who pretend to be the excluded outsider for their political benefits. Instead of deploying the Badiouan militant resistance against the system, Deleuze prefers a strategy of flight, according to Jeffrey Bell, by “becoming-imperceptible” as “the correct political change in the modern society of control” (Faber, Krips & Pettus 2010, 164; 347). For, as Adorno already mentioned, it is “too late for resistance” (Faber, Krips & Pettus 2010, 349). This may be true, unfortunately.

Let’s go back to Badiou and look at his text. Badiou has another figure of the subject in addition

apex’ (AI 13)” (Faber, Krips & Pettus 2010, 215). Indeed, Badiou’s mathematical ontology “has nothing to say for the event of political action and therefore enslaves human action again into a dangerous humanism” (Faber, Krips & Pettus 2010, 216).

to the militant one: the savant (Badiou 2007, 406). According to Badiou, the subject is “at the intersection, via its language, of knowledge and truth” (Badiou 2007, 406). As we have seen, the subject does not seek to be in the state of the situation and thus to remain within the encyclopedic knowledge system, because truth is outside them. However, the subject does not simply live outside them. It knows that truth comes from the outside, but it cannot survive there. As a matter of fact, it has actually its residence within the situation. Then, does the subject simply pretend to be outside? No. Being is the multiple which means that it cannot be counted to the last and that there is something uncounted or that which cannot be counted within it. The uncounted contain the truth for the situation. Note that truth for Badiou is always for the situation. There is no general or universal Truth. Thus, truth is also multiple. The savant figure militantly seeks to find the uncounted to improve the situation. And this militant endeavour of the savant cannot be stopped, for the uncounted at its essence is inexhaustible, maybe due to the technical problem of the counting method or to the infinite potential of the uncounted. In this sense, Krips correctly observe that Badiou’s politics of the event does not engage in building up “new authoritative Master Signifier” but instead that which “sweeps away an old order by acting in the name of a signifier of equality that is ‘empty’ in the sense of always and already being open to reinterpretation” (Faber, Krips & Pettus 2010, 267). That is, unlike what Žižek argues, justice for Badiou is not Master Signifier but rather like “*objet a*” in Lacanian terms (Faber, Krips & Pettus 2010, 267). *Objet a* is “not itself a signifier, but instead functions as a stop-gap (or ‘cork’) that plugs a hole in the symbolic order where signification fails” (Faber, Krips & Pettus 2010, 267). Thus, one can say “the signifiers of the political cause never represent it perfectly, so that there is always more to be achieved: more equality, more justice, etc” (Faber, Krips & Pettus 2010, 268). The savant as the militant subject does not dream of the dream coming true. S/he ceaselessly makes her enquiry on the truth for the situation and examines some possible and potential holes of the knowledge system, giving thanks to the fact that s/he still can try. However, the savant never succumb to the given, and this is her/his militant

spirit of resistance.

One more thing, can Badiou's anthropocentrism find an exit to a cosmic horizon? Here, Whitehead may help Badiou to find the exit. Whitehead's ontopolitics includes "all creatures as societies of societies on the basis of univocity—the speaking with *one, equal voice of difference*—that undermines any Establishment of a State of slavery, imperial oppression and exclusion" (Faber, Krips & Pettus 2010, 216). In so doing, "instead of the isolation of democracy from cosmology, ... [his] *onto/politics becomes eco/politics* as the true horizon for becoming-democratic" (Faber, Krips & Pettus 2010, 216).

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Religious Education in Poland and the New Paradigms in Ecology

Mirosław PATALON (University of Gdansk, Poland)

patalon@univ.gda.pl

Introduction

The topic is centered around the question of subject identity in the religious aspect and in the context of ecology. It seems that this is vitally important in view of the fact that today no longer is a person shaped exclusively by separate and monolithic communities, even if he or she is rooted in a uniform and homogenous setting. Common access to the Internet and other media, along with the ability to travel, facilitate contact with cultural diversity, including religious diversity. It seems justified, therefore, to consider the dynamics of religious views of an individual in this new social reality. This issue is even more important if one accepts the assumption that social structures continue to be inspired by religious paradigms. The (self) formation of a subject is a basic problem not only in pedagogy and sociology but also in philosophy and theology. Is an individual subjected to absolute socialization within imposed and existing social structures or does he or she participate in the process of relatively free self-development? Are we determined by nature or called to achieve human maturity? Who or what specifies standards of that maturity? Is the world of values given to us or are we supposed to work it out? These are some possible questions that follow from the main problem stated above. In the ontic aspect, the question also concerns religious education and the content mediated in this process: is it permanent or subject to change? That, in turn, leads to the question regarding the connection between religious instruction based on specific theologies with the attitude toward nature and ecological consciousness.

Process theology, conceiving of God and the world in a permanent organic relationship, implies an active participation of believers in the sphere of ecological problems. Here this issue is discussed against the background of the changes in perceiving the symbol of God by the religious educators in Poland. Later on I will show the results of the research that is based on the phenomenographic approach and was accomplished among religion teachers of Gdansk secondary schools (where more than 90% of the students attend religion lessons provided by Christian churches on the public schools ground).

Theoretical assumptions

Process philosophy, as well as the related theological and pedagogical reflection, is strongly connected to American pragmatism, represented by Charles S. Peirce, William James, George Herbert Mead, Charles Horton Cooley and – above all – John Dewey. According to these philosophers, knowledge should always be oriented towards the real world characterized by diversity and changeability (using Dewey's terms, reality is subject to continual 'reorganization' and is never 'finished' in its development). Abstract and holistic models are useless fancy; what matters is everyday life and solutions to real problems (the ethical and political dimensions of philosophy). It is also noteworthy that pragmaticians refer to the naturalistic assumption that a human being is a part of the broader world of nature but – contrary to Spencerian evolutionism – they strongly oppose social determinism. Culture does not have a spiritual or metaphysical source but is a form of an active and responsible adjustment to actual conditions of life. Consequently, it is not established ontically nor grounded in a transcendental pattern, which in the pedagogical context considered here means that the subject is being continually constructed. Reality is a dynamic collection of interactions between its participants; it is open (processual) by character and every aspect of the world consists of continual becoming. A human being is a unique participant of these processes: on the one hand, conditioned naturally and culturally, and on the other hand, free to change the encountered reality through his or her active involvement¹. Pragmaticians criticized dualism of reality and abandoned the rigid differentiations between the soul and body, consciousness and being, thinking and acting, organism and environment, individual and society. Rather, people are in the constant process of mutual adjustment to one another and to the environment. The essence of socialization is a harmony of continuation and creativity; any innovations cannot be hostile towards tradition.

The pragmatists view truth in a distinctive way: it always refers to the practice of everyday life (a statement is true if it works) and, as such, is not a closed or static notion. Truth is not to be discovered but to be experienced; the experiencing subject should not be raised above the experienced object but should be immersed in it (thus the borderline between the subject and object of experience is blurred). Consequently, knowledge constantly escapes possession and rather than being conceived of statically as a commodity it must be approached dynamically as a process dependent on the entire context of time, place, etc. This principle refers to both gnoseology and axiology: values are constructed through a

¹ See: William James, *Pragmatism. A new name for some old ways of thinking*, Cambridge, Mass, 1978.

person's concrete involvement, which means that some disappear and others emerge. Social values are established democratically; that is why education should above all develop human activity and responsibility. Educational processes are not limited to a specific area or time and all established educational institutions must as much as possible reflect the currently experienced world². Because of the changeability and diversity of reality, learning is based on the principle of novelty viewed as a virtue and, consequently, on pluralism which leads to that novelty. One of the most urgent problems of today's world is the state of the nature and it's constantly worsen condition. That is why education in general and religious education in particular must not be based on the classical paradigms avoiding the ecological dimension.

Despite his emphasis on diversity in education, Dewey carefully avoided the two extremes of individualism and collectivism. An individual is always a part of a larger social organism; that is why it is important to be aware of common pursuits and achieve a relative uniformity in perceiving the world³. Democracy is therefore primarily a form of exchange of experiences and it is in this sense that it is vitally important for the development of both individuals and entire societies. The life of an individual must not be considered apart from the life of the social organism but, at the same time, it is individuals that affect the character of the society. What is extremely important in the context of the subject of this paper – not only a man is an agent of the democratic society but also every part of the nature – both living creatures and so called still life. This mutual and constant influence is a result of communicative processes, that is interactions between all participants of a community.

Likewise, Charles H. Cooley – because of the assumption concerning the organicity of social life – maintained that notions and phenomena that appear to be mutually exclusive (e.g. freedom and necessity, the individual and the group, the spirit and the matter, science and art) must not be separated as antinomies but viewed in a complementary way as collective and distributive aspects of one reality⁴. That is why we should oppose any particularism and artificial isolation of specific aspects (e.g. biological, economic, psychological, etc.) as if they functioned independently of one another. For everything is a part of a single process of life in its entirety.

Even though neopragmatians (not only Richard Rorty but also Hilary Putnam, Donald Davidson and John B. Cobb) are critical of metaphysical realism (in Cobb's case, of theological

² See: John Dewey, *Democracy and education. An introduction to the philosophy of education*, New York 1929.

³ John Dewey, *Logic. The Theory of Inquiry*, New York 1938, pp. 66-67.

⁴ Charles Horton Cooley, *Human Nature and Social Order*, New York 1964, pp. 36-37.

dogmatism), they do not advocate relativism. On the contrary, they stress the necessity to retain discursive analyses of great contemporary problems⁵. Rationality, which goes beyond accepting the function of a mere observer, is both entitled and compelled to declare a certain state of affairs. Life itself establishes canons of truth and falsehood, being the most important human commodity and creating an area of exchange between individuals, this enabling the sustained existence and development of a society. In this sense, neither scientific nor theological rationality exists beyond the context of concrete experience; truth about God (transcendence) in separation from life is an illusion.⁶

A human being, along with the culture he or she creates, is neither separated from nature nor placed above it as God's representative who subdues the earth. Rather, he or she is settled in nature and connected with it; nature and culture are unified⁷. Because of this, the sense and fulfillment of human life is not the exclusive result of analyses of the mind (soul) or experiences of the material body – as independently operating spheres of experience – but comes from dialogical creating new possibilities, which in process theology is compared to the dance of life; the meaningfulness of reality consists of its participants' creative acts. In the process of the constant development of an organism the key element is not the desire of the individuals to survive (evolution) but the interactions between them; the dance of life does not incorporate steps planned ahead but develops unpredictably, fancifully, surprisingly, and yet surely! Creative relationships build up the meaning and sense of existence of beings and conversely: singleness, isolationism and solitude lead to nihilism. Dance, typical of all pairs and rooted in nature, in this light becomes the hermeneutic key to unlock the meaningfulness of life at large. All knowledge is transitory; one should rather speak of attempts to “capture” reality and multiple perceptions thereof. Changes do not occur according to a simple principle of causality: some may be predicted, others not. Neither are they designed and controlled from the outside; rather, the world is in a constant process of self-creation.

However, it must be stressed that in process philosophy God is not viewed as a person separate from the world, as a sovereign Lord manipulating reality using a hierarchy of intermediate beings. In this sense, education consists of a person's finding his or her place in creative relationships with other subjects of nature; it is a constant process, which follows from the dynamic character of these relationships⁸.

⁵ See H. Putnam, *Realism and Reason. Philosophical Papers*, vol. 3, Cambridge 1983, p. 195.

⁶ See G. Deleuze, *Negotiations, 1972-1990*, New York 1995, pp. 159-160.

⁷ John B. Cobb, *Thinking with Whitehead about Nature*, [in:] J. Polanowski, D. Sherburne (ed.), *Whitehead's Philosophy. Points of Connection*, Albany 2004, pp. 175-196.

⁸ See: Michael Kazanjian, *Learning Values Lifelong. From Inert Ideas to Wholes*, Amsterdam-New York

Report from empirical research

Phenomenographic research described below was conducted in June and July 2007 in a group of teachers of religion in Gdańsk, Poland. Among the respondents there were 20 teachers of the Roman Catholic religion and 15 teachers of other religions (including Christian denominations: Polish National Catholic, Greek Catholic, Lutheran, Baptist, Pentecostal, Adventist churches, as well as other religions: Islam, Buddhism and Judaism), all teaching in gymnasiums (Polish middle schools with students aged 13-16). Interviews were held in schools in which religion is taught or in educational facilities run by parishes. The first question asked was: How do you characterize God? I was basically interested in respondents understanding of God especially in relation to the world. The assumption of the research is based on the structuralist theory of the language (Ferdinand de Saussure, Claude Lévi-Strauss, Michel Foucault) and discursive way of understanding both the society and self formation (Jacques Lacan). That's why here asking for God is in fact asking for both the universe and a man. This way theology can be seen as anthropology since it is created by the human spirit as thinkers like Ludwig Feuerbach, Sigmund Freud and Karl Barth indicated.

In the phenomenographic procedure, the following categories of meanings assigned by teachers to the examined phenomena were isolated:

1. Established and internalized theological construct

This is the most common category referring to God. Respondents in their answers quoted different parts of the holy scriptures or the writings of classical theologians (like Church Fathers) believing that this is the right and correct definition of God; that's why there is no need of the new search in this matter.

2. Perfect Father

Here the yearning for the primordial perfect relationships is disclosed. An interesting notion is that nobody mentioned the category of mother or motherhood which shows strong masculine character of the functioning culture. God as Father is the symbol of lost unity of the mankind and the nature. Religion's function is to rebuild this unity which may be viewed as the empty signifier since it will never be fully defined and established.

3. The source of meaning and purpose of life

The paradigm of cosmos as perfectly organized system appears in this category. This kind of order is necessary for an individual's sense of meaning – every agent in the universe is based on the whole and is seen as a portion of the excellent organism. Apart from it an individual is useless and lacking for satisfaction.

4. Postulated ideal of man and moral pattern

Here God is viewed as a guarantee of stable moral system – without him everything is relative and subject to change. The need of stability in this sphere strongly influences the respondents. The world needs a ruler and strong omnipotent lord deciding what is right and wrong.

5. Bottomless mystery

This is the only category allowing the further quest and leaving the space for new paradigms coming up in the changing world. Only here we can abandon the man's position as superior to other creatures and enter the discourse of ecology and harmony of the nature.

Conclusion

It may be stated in general terms that the interviewed teachers of religion view God in a very stable and traditional way. Consequently, they are not open to be introduced to new paradigms dynamizing the process of creating new meanings and developing the theological identity of the subject. Some respondents openly declare that in their case this process has been finished, others are only open to changes within the paradigms operating in their own traditions. Only a small group of the interviewed teachers looks for new inspirations to think about God. This is true of both the Roman Catholic confession, dominant in Poland, as well as of the minority confessions and religions.

Here the role of brave theology occurs. I believe that process approach may play such a role. Major elements of Whitehead's metaphysics are: the oneness of reality as well as its dynamism and variability, the integration of apparent antagonisms and contradictions into a single whole. The chief tenets of process theology – pragmatism, panexperimentalism, the relationality of God and other beings, and their correspondence to the nature of the world, the atomistic concept of time – are the background of the specific understanding of the religious doctrine, the concept of God and man, and the nature of the world, which have a great impact on the quality of religious education in the context of today's world. Actually, we live in the world where we have to reformulate theological instruction due to the new

problems connected with the state of the nature and its relation to the culture.⁹

Doctrinal formulations must not be perceived as an absolute determinant of faith but rather as a socially construed result of its connection with a given culture. Therefore, the role of a theologian is about a responsible transformation of reality through a reinterpretation of the functioning religious symbols in the context of the changing culture. This is how the activity of Moses and Jesus is viewed; this is also the task of their followers because “where there is no prophecy, the people cast off restraint” (Proverbs 29:18, NRSV). Cobb, after Whitehead, depicts God as a relational being constantly participating in complementation processes: His creative activity is an example to all other beings. Man’s humanity, therefore, should not be considered as a *given* but as a *task* because freedom is linked to the responsibility for co-creating history through active multiplication of an individual experience.

This kind of pan-en-theistic view of reality results in the concern about nature and, in theology, a shift of the emphasis from theo- and anthropocentrism toward the sacredness of Life and the ecological awareness. This leads to certain repercussions in John B. Cobb’s ethical thought: in the idea of ecojustice and the paradigm of adventure and joy of life as a starting point in the quest for specific ethical assertions. In the processual perspective, however, these assertions are always local and temporal because of the freedom and activity of the relationally situated ethical subjects. In this system, God is no longer an omnipotent decision maker responsible for the condition of the world but rather a co-creator of history who offers his help.¹⁰ Thus, the sense of life lies in the very existence on this earth and not in the anticipation of the ephemeral heavenly reality; consequently, the paradigm of certainty of salvation, typical of Evangelical Christianity, is replaced by the paradigm of the hope of salvation, which stimulates Christians to get actively and creatively involved in the socio-cultural life of the contemporary world. Ecojustice requires Christians who believe also in life before death.

⁹ David R. Griffin, *Process Theology and the Christian Good News. A Response to Classical Free Will Theism*, in John B. Cobb, Clark H. Pinnock (eds.), *Searching for an Adequate God. A Dialogue between Process and Free Will Theists*, Grand Rapids, Mich., p. 3.

¹⁰ *Ibid.*, p. 52.

Collapse or Sustainability? Future-Ethics, Eco-Pluralism, and Process Thought

John QUIRING (Center for Process Studies, Victor Valley College, U.S.A.)

johnq@ctr4process.org

This paper employs the depolarizing methods of Hartshorne and Whitehead to address the problem of a *spectrum* of conflicting environmental *psychologies*, *philosophies*, and *scenarios*. As process thought creatively transforms polarized orthodoxies in religion, philosophy, and science, so it might seek ways to address the polarization of environmental psychologies (pessimism/optimism), paradigms (ecologism/economism-technism), and scenarios (collapse/sustainability). Hartshorne's "position matrices" and Whitehead's harmonizing of opposites might facilitate critical integration of selected aspects of competing environmental philosophies. A path from polarization, through eco-pluralism, to polarity is charted.

The introduction indicates that future-scenarios evoke the need of consequentialist ethics to assess their *conflicting projections*. The book *Future Ethics* explores a dialectic of polarized meanings of climate change: political inertia (the inaction of denial in the modern paradigm of progress) vs. apocalyptic fatalism; mediated by a paradigm shift to radical resistance to anthropogenic causes of climate change.

Section 1 discusses the spectrum of *environmental philosophies*, or *ideologies*, that *differently-prioritize scenario variables*—from left to right: anarcho-primitivism, deep ecology, ecofeminism, people-of-color ecojustice, eco-Marxism, social ecology, eco-humanism, liberal environmentalism, conservationism, traditional green conservatism, ecorealism, neoliberal green, free market environmentalism, green conservatism, and wise use.

John QUIRING

Section 2 discusses a spectrum of environmental scenarios—from civilizational collapse through varieties of sustainability:

2A discusses *comparative* scenarios (Global Megacrisis Survey; Tellus Institute; Global Scenario Group); *population* scenarios (Millennium Ecosystem Assessment); *energy* scenarios (Four Energy Futures); *oil* scenarios (Robert Hirsch; Shell Global Strategies; oil depletion timelines; peak oil); global *water* scenarios; *climate change* scenarios (IPCC), and “Climate-Change-Denial Debate issues.”

2B discusses scenarios proposed by those who *focus on population, resources, and pollution*. Arranged *from bad to worst*, they include forecasts by Worldwatch Institute, Lester Brown, *Panarchy*, *Resilience Thinking*, Graeme Tayler, Robert Nadeau, Thomas Homer-Dixon, Joseph Tainter, *New Scientist*, Petra Kelly, William Rees, Jon Foley, “The 11th Hour,” David Orr, Robert Costanza, Jorgen Randers, “Collapse” (*National Geographic*), James Gustave Speth, Sing C. Chew, P. H. Liotta and Allan Shearer, John Cobb, Bill McKibben, James Lovelock, and Frank Fenner.

2C discusses scenarios proposed by those who *focus on economics, business, and technology*. Arranged *from bad to seemingly-utopian*, these include forecasts by Yvon Chouinard, Ray Anderson, Hazel Henderson, Natural Step, World Business Council for Sustainable Development, Jeffrey Sachs, Republicans for Environmental Protection (McCain, Gingrich), Joel Garreau, Stewart Brand, Indur Goklany, Matt Ridley, Ronald Bailey, Julian Simon, Bjorn Lomborg, Kevin Kelly, Andy Clark, Ray Kurzweil, Singularity Institute, and Singularity University.

Section 3 discusses possibilities of mediating the polarized philosophies and scenarios. Environmental methods paralleling the method of Hartshorne (*polarity, inclusive contrast, creative synthesis*,

interweaving both sides) might be considered in aspects of the thought of John Dryzek, Bruce Hull, Eric Lambin, Eric Neumayer, Vaclav Smil, Daniel Farber, Eric Katz and Andrew Light. They propose that the plurality of scenarios, philosophies, and psychologies might actually reflect competing *paradigms*. The middle ground that is typically offered is sustainability (strong/weak), *relating differently to the opposites*: pessimism/optimism, ‘doomsters’/‘deniers’, environment/economy, regulation/market, preservation/development, steady-state/growth, intrinsic value/ instrumental value, scarcity/abundance, Eastern thought/Western thought, and shades of ‘Green’ (deep/ stakeholder/market/compliance).

The ground as nothingness

SATO Yosuke (Chuo University, Japan)

polly82@kki.biglobe.ne.jp

In the philosophy of Whitehead, The Category of The Ultimate is made up of three concepts, ‘creativity’, ‘many’, ‘one’. These concepts are mutually dependent and do not precede each other. ‘Many’ aims to unify ‘one’ and ‘one’ is that ‘many’ as a unity: these concepts presupposes each other. In Whitehead’s system, the determinateness as the contrast of ‘one’ and ‘many’, and— ‘creativity’ that unifies ‘one’ and ‘many’ form the ‘ultimate principle’ (PR 21)¹. For Neville², the problem is what ontologically gives a ground to The Category of The Ultimate, which as the determinateness unifies ‘one’ and ‘many’ that makes actual entities possible. The reason I take up Neville’s discussion is that Neville’s argument reaches nothingness. This situation is critical in Whitehead's system. In Whitehead's scheme, there is not nothingness which belongs to somewhere. Neville’s argument deviates from the system of Whitehead. This paper will discuss whether a system that accepts this deviation and has a ground as nothingness can be formed.

I

To begin with, let’s see why Neville’s argument reaches nothingness. If any ground of determinateness is something even more determinate, then it is not able to be a ground. Therefore, the ground of determinateness must be indeterminateness. Neville considers this indeterminateness as nothingness. Neville consider this indeterminateness to be nothingness. Why? Even if it is indeterminate, it must not be something that exists, because we seek a ground for determinateness as unity *that makes entities possible*. If what makes an entity possible is some kind of being, then it demands a ground for itself, so it can’t be a ground. Consequently, it must be a non-entity and not belong to the system of Whitehead anywhere. So Neville can’t help considering it as nothingness. How does a ground as nothingness create

¹ Reference to the principal works of Alfred North Whitehead will use the following abbreviations, followed by page numbers, placed in parentheses in the text.

PR—*Process and Reality*. 1929. Corrected Edition. New York: Free Press.

² Robert C. Neville, *Creativity and God A Challenge to Process Theology* (State University of New York, 1995), ch.III, Ontology of the One and the Many, pp.36-47.

the determinateness? From here, Neville advances a new theory of creation. However, there are difficulties in this theory that must be criticized. Let's examine the difficulties.

The difficulty for Neville is the problem of how nothingness creates. How does nothingness create determinateness? How does a ground explain that creative act? Though Neville says that the creator of the determinateness is created by nothingness with the determinateness, what does this situation mean? As a logical order, we think that first there is a creation, then determinateness, and the creator of determinateness. Unless the determinateness is created by nothingness, any determinate entity can't be being, even if it is the creator of determinateness. But, before the act of creation, nothingness can't suppose the creator of determinateness because there is still nothing at all. It is not until we suppose the creator of determinateness that the determinateness is created by the act of creation. In Neville's theory of creation, the creation of the determinateness and creator of the determinateness is side by side. Could anyone say that this creator is the creator of determinateness?

However, Neville explains a relation of nothingness and the creator of determinateness that nothingness in itself that is 'the creative source'³ becomes the creator. Nothingness itself makes the act of creation, and becomes the creator. But, in this explanation, nothingness is not entirely nothingness, that is to say, before the act of creation, there is *something* indeterminate (that is not nothingness). According to Neville nothingness turn out to be something indeterminate which is named the creative source, where *something* that is to become creator at the same time as the act of creation is already supposed. Therefore, if we believe Neville's explanation, before the act of creation, there is an indeterminateness of creator. Neville's difficulty is that he makes nothingness something indeterminate and requires potentially the indeterminateness to be a creator as determinateness.

As Neville fails to ground determinateness on nothingness by making nothingness something indeterminate, the creation from nothingness is not able to ground determinateness. But unless we can ground determinateness on nothingness, the system of Whitehead involves irrationality of The Category of The Ultimate. The situation that the determinateness as contrast of 'one' and 'many' unified by 'creativity' is, as a given fact, accepted without any foundation.

I will investigate whether nothingness plays a role as a ground by reducing what Neville made an indeterminateness of creator to genuine nothingness. Is it possible for nothingness to be founded even if nothingness does not accept immanence of creativity in the potential of mere indeterminateness? There is a theory that explains existence with a ground as nothingness. Let's examine 'the place of

³ Neville, op. cit., p.44.

absolute nothingness' of Nishida Kitarō.

II

It may seem that immediately taking up the place of absolute nothingness of Nishida Kitarō is a simplistic idea. But it isn't. Nishida's theory that the place of absolute nothingness is the ultimate within which all reality takes place has another difficulty in providing coherence for the notion of nothingness: a difficulty that is different from the one facing Neville's interpretation of Whitehead's *The Category of The Ultimate*. The difficulty is a problem of how nothingness itself is founded.

Nishida thinks that in order to be something, there must be a place antecedent to the something itself. If there is A, then it is thought that there is a place within which A take places, namely, because there is the place, so, A exists. This is expressed as: A is in B; also as, place B envelops place A.

According to Nishida's logic of place, when some being as existence is thought, it must need a place to make it exist. Because this place is the place to make some being exist, this place is not itself some being, namely, it is non-being, nothingness. Likewise, when nothingness is thought, it must need a place to *be* nothingness. This is the so-called place of absolute nothingness. While nothingness that is thought as contrast with being is called 'opposite nothingness', 'absolute nothingness' that makes the opposite nothingness possible is thought. According to Nishida, genuine reality is the place of absolute nothingness. What is in there is a shadow of the place of absolute nothingness itself. The place of absolute nothingness is a seer which sees the shadow. However, there isn't the place of absolute nothingness anywhere as some substantial. The place of absolute nothingness isn't something being, because it transcends the concepts of existence and (opposite) nothingness, and envelopes all oppositions and contradictions as a transcendent and incomparable place. What does it mean that the place of absolute nothingness is thought? Frankly speaking, there isn't the place of absolute nothingness anywhere. But existence is explained by the place of absolute nothingness that 'mirrors itself in itself'. How can we understand such a place of absolute nothingness itself?

After *The system of Self-Consciousness of the Universal*⁴, a place is considered as 'universal' that envelopes the particular. Nishida investigates various places, going up steps of universality. He finally reaches the place of absolute nothingness. He explains this process as if it were a phased explanation; a universal (a place) is transcended by various universals and finally the place of absolute nothingness is reached as the most fundamental universal. But it is not true. All universals take place as

⁴ *Nishida Kitarō Zenshū*, (1979, Tokyo: Iwanami Shoten.) [Complete Works of Nishida Kitarō, in nineteen volumes, cited as NKZ followed by volume and page number.]

self-determination of absolute nothingness, in other words, the reason there are all the universals is that the place of absolute nothingness as ground is assumed. The place of absolute nothingness is there like the inside of all places. The place of absolute nothingness is thought by various universals: and the place of absolute nothingness lays the foundation for all universals. There is a circular structure that the universal returns to the place of absolute nothingness as the original and only self. This circular structure can't accept the explanation that lays a foundation for the place of absolute nothingness itself, but that's the very reason why we must question a ground of the place of absolute nothingness itself.

However, the place of absolute nothingness does not mean directly that there isn't anything at all. Although it is absolutely nothing in the sense that it is not enveloped by a more extensive universal, it is the fundamental universal as that which mirrors and that which sees. Therefore, 'it is absolutely nothingness and absolutely being at the same time' (NKZ V 451). Though the place of absolute nothingness that is 'seeing without seer' is a contradictory situation, it is said that this situation is founded on self-negation of the place of absolute nothingness itself.

It is truly absolute by being opposed to nothing. It is absolute being only if it is opposed to absolute nothing. Since there can be nothing at all that objectively opposes the absolute, the absolute must relate to itself as a form of self-contradiction.

It must express itself by negation itself. Mere nonentity cannot stand in relation to itself. That which stands in relation to itself must negate it. But by negation itself it is paradoxically one with itself. What is entirely unrelated to itself cannot even be said to negate itself.⁵ (NKZ XI 397)

Through the self-negation of the place of absolute nothingness as seer, the absoluteness is completed as self that negates itself. As far as there is something else that negates self, it is not something absolute, because it is relative negation by something other than self. Nothingness that is impossible to be some kind of object or concept becomes absolute nothing by self-negation. The place of absolute nothingness can't demand an explanation of ground by any other factor. The reason the place of absolute nothingness can be thought as absolute is that it possesses absolute self-negation within itself.

However, in what sense, can the place of absolute nothingness self-negate? What does the place of

⁵ Cf. David Dilworth (trans.), *Last Writings: Nothingness and the Religious Worldview* (Honolulu: University of Hawai'i Press, 1987), *and p68*.

absolute nothingness negate? Certainly, the place of absolute nothingness does not mean directly that there is nothing. But the place of absolute nothingness is absolutely nothing in the sense that it transcends all universals and rejects its conceptualization and objectification. When the negation that negates nothingness is thought, it doesn't mean ordinary negation. Could ordinary negation negate such nothingness as there is nothing at all? Even if we accept the self-negation of the place of absolute nothingness as Nishida says, we must make the facts of this negation clear. Because the self-negation of the place of absolute nothingness that can negate absolute nothingness must be an extremely special action, it is not clear that whether this self-negation is properly called negation. What is that which the place of absolute nothingness negates? Is it possible that the place of absolute nothingness self-negates? In this respect, Nishida does not explain at all. Does the self-negation become empty action, because the place of absolute nothingness is absolute nothingness?

Furthermore, when we think carefully the character of the place of absolute nothingness, it is impossible to explain a ground of the place of absolute nothingness itself. Although the place of absolute nothingness is a place where all universals are thought within it, there is no further place that is the place of absolute nothingness within it, and there is no place of absolute nothingness that is in contrast to something. If something further is thought, it can't be called absoluteness. Consequently, the place of absolute nothingness must be said that it *is* there suddenly, unfoundedly and without ground as the situation of directly nothing, because it is the fundamental place. It is said that it *is* there, but it does not mean *being*. It is just the situation of absolute nothingness. As Nishida says, the place of absolute nothingness can be thought, but it refuses to accept an explanation of ground from the beginning.

III

In case of Neville, he has difficulty that the creation from nothingness can't be explained. In the case of Nishida, the facts of self-negation that forms the place of absolute nothingness and gives a ground to it are not clear. And the character of the place of absolute nothingness can't give a ground to nothingness itself. They have difficulty that nothingness refuses explanation because it is nothingness. That is to say, there is the difficulty that nothingness can't draw an explanation from it, it refuses to give an explanation of ground to itself. Does a ground itself have a fault, then? But it seems valid for Neville to replace an indeterminateness which gives a ground to the determinateness of 'one' and 'many' with nothingness. It seems also valid for Nishida to think the place of absolute nothingness that transcends all existences and 'opposite nothingness' contrasted with being. As seen above, to give a ground as nothingness is a

valid result, because a ground must transcend the determinateness of all universals. Accordingly, it can be thought that the explanation which is founded on nothingness should be denied. It intends to take a standpoint that there is no ground in that it is impossible to explain beyond that, accepting nothingness. There will be a refutation that accepting nothingness is not the solution at all because it denies a rational explanation which is required and refuses an attempt to explain. But rather than completing the explanation, does the explanation itself reveal that it is impossible? Thus a crack appears between nothingness as a ground and explanation that gives a ground to nothingness itself. In a demonstration, both Neville and Nishida meet nothingness. However, the nothingness completely escapes from our explanation. Only it will become a ground or the most fundamental answer to the question that why is there something. That is to say, the answer is there isn't nothing at all, there isn't any answer. Although we meet the most fundamental ground, it hasn't been there always and already the moment we try to explain it. To make nothingness a ground is to accept nothingness without foundation.

Nothingness can't be completely made a language and it is impossible to objectify by knowledge. In this sense, it is absolutely other. At any rate, there isn't anything at all. By a language, in a sense, nothingness is made into a being. The reason we can make nothingness a ground is that nothingness is made into being. But it isn't genuine nothingness to which this should be related. If it is related to, it is made into being. Therefore after relation, it is not nothingness any longer, and it has escaped from our explanation always and already. However if it is not related, we can't see nothingness. To make nothingness a ground of system means that we must keep following that which escapes. Nothingness is constantly escaping because it is nothingness. While to make nothingness a ground can avoid all the further explanation, it is a double-edged sword that makes impossible to explain from it. Is there any other means for us to meet a ground to which we can't be related? We will have to try to find a possible relation (If it is there!) to this ground without foundation.

The ground beneath our feet

Heine SIEBRAND (Remonstrant Church, Netherlands)

heinesiebrand@planet.nl

Abstract

Since more than a century, our western world is heading towards a sphere of secularism and it has become more or less used to it in culture and thinking. Nowadays however, there seems to be a counter reaction in fictional literature, in philosophy (of religion) and in theology. There is a growing new understanding for the spiritual dimension of life in its practical as well as theological aspects. It is argued that the actual interest in worldviews as such, be it religious, secular, environmentalist or deep-ecologist, is immediately related to a change in our appreciation of our underlying perception on how and what things really are. This change involves amongst other things the return of god-concepts in a range of central topics in modern thinking.

In my paper I will engage with some central aspects in Spinoza's god-concept in my debate with the well known late Norwegian philosopher Arne Naess. His view and mine were published in *Neue Zeitschrift für Systematische Theologie und Religionsphilosophie*, Berlin 28 (3), 271- 283. My argument is that by the method of logical reconstruction it can be shown that even a strict rational system such as Spinoza's a god-concept is more open than one would think. This is opposite to the standard belief. Recently this debate was resumed by Eccy de Jonge, in his *Spinoza and Deep Ecology. Challenging traditional approaches to Environmentalism*, ASHGATE 2004. In this interesting study it is shown that Naess as an environmentalist (and non believer) adopts and introduces a god-concept which can be seen as in fact ambivalent and complicit with the very necessity it supposedly opposes. As it seems to be, the only

reason for introducing a god-concept in his environmental thinking is to overcome the overall (typically western) experienced phenomenon of staying an outsider and of non-belonging. In order to prevent humans from becoming subjected to unreliable meaning and random events, and to behold the connection with life, Naess values therefore a central role and function for the return of a god-concept as I understand his view, in a time wrestling with the absence of God.

In my paper I will argue that Whiteheadian thinking can be a great support for a radical openness of the god-concept. Especially when now this debate happens on the basis of (i) the absence of the dominant (religious) narrative in a traditionally Christian society, (ii) the fact that secularism and religion both are “in the making”, and finally (iii) the spiritual praxis and the search for self-understanding, which is developing in and outside the traditional churches strongly today in western society, spans the significant characteristics of an immanent-transcendentalist (panentheist) approach to God and nature. In a secular age, reminding Richard Kearney, what we perceive is the return-to-God-after-God. What will this mean for how we are related to the ground beneath our feet?. There are fortunately many voices opposing the experience of loss and disenchantment and turning it into the powerful expectation of either secular transcendence in the context of art, or rather into a future (secular?) still unknown form of religion which is in the making. The crucial question at hand behind all of this is perhaps: “What will God become?”

Whiteheads illuminating ideas on prehension and eternal objects etc. might serve as a key, and help us in rethinking our world by unfolding its intensities and forces.

Rev. Dr. Heine J. Siebrand (1951) is a remonstrant theologian and minister at Utrecht, The Netherlands. In 2006 he presented his paper entitled “Religion without Theology”, at the International Whitehead

Heine SIEBRAND

Conference, Salzburg, Austria. In recent years he published several books on religion, literature and philosophy, and is engaged by giving public lectures and in debates with vital issues of our time. As a curator-secretary he belonged to the board of directors of the Remonstrant Seminary, Leiden University 1996-2004. From 2005 till 2009 he was a member of the central national board of a progressive small liberal church: the Remonstrant Brotherhood. Since 2002 he functions as chairman of the Dutch *Society for Modern Theology* (founded in 1934). He studied at Groningen University, where he received his degree in 1980, whereas he received his license as a minister from the Remonstrant Seminary at Leiden University in 1986. He received his Ph.D. from Groningen University in 1988 for his dissertation: *Spinoza and the Netherlanders. An Inquiry into the Early Reception of His Philosophy of Religion*, Wolfeboro, New Hampshire (USA). Further more he contributed to several publications, such as e.g. Marjorie Grene & Debra Nails, *Spinoza and the Sciences*. Dordrecht/Tokyo 1988, and is also author of i.a.: *Belief in God and Intellectual Honesty, A Spinozabibliography 1971-1983* (Brill Leiden), *De bekleding van de wereld, Mooi weer spelen, Onvrijzinnig vrijzinnig, Tegendraads. Vrijzinnige stemmen op het kruispunt van geloven en denken* and *Woorden zouden overbodig zijn*.

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Gaspeldoorn 10

3984 AX ODIJK NL

The Netherlands

www.remonstranten.org/utrecht

Toward Being for Others, with Others
—Suggestions from Kitarō Nishida’s “I and Thou”—

SHIRAI Masato (Toyo University, Japan)

HitachiShirai@aol.com

Foreword

Today, it is undeniable that “being for others and with others” is an important issue. However, if we fail to grasp others as themselves and, as a consequence, distort them violently, we cannot achieve “being for others and with others” in a true sense. Therefore, we must ask how we can encounter others and accept them as others.

To answer that question, Kitarō Nishida’s “theory of others” gives us great suggestions. To deepen his theory Nishida explained in what kind of place we encounter others and who are others in the true sense. According to Nishida, we encounter “thee” as the “absolute other” in the “historical world”.

Based on the above-mentioned awareness of this issue, this essay intends to clarify how and where we encounter others, based on Nishida’s “theory of others”. In section 1, the place where we live will be discussed. Section 2 will discuss others who encounter us. And the last section will deal with the relationship between the encounter and the place where we live.

1 Environment and the Individual

It is in the essay “I and Thou” (1932) that Nishida explained about the problem of “others”. With this essay, Nishida’s thought on the “Place”¹ where we live will be examined.

Nishida thought of us as an individual which is determined by the environment. Namely, we are affected by the environment, and through this effect we are molded into a concrete shape of us. Nishida wrote: “The individual must be completely determined by the environment” (6-347)². However, Nishida did not take the standpoint of determinism that, every state of our being is a result from the environment. Nishida wrote:

¹ “The place” (Japanese “*Basho* 「場所」”) is important term in Nishida Philosophy. About the concept of basho, cf. cf. Robert J. J. Wargo. *The Logic of nothingness*, Honolulu: University of Hawai’i Press.

² Kitarō Nishida. *Complete works of Nishida Kitarō*, Tokyo: Iwanami Shoten, 1965-1966. 19vols. Abbreviated as (volume number – page number).

As long as we think that a substance is determined by its environment, which is regarded as a universal for all beings, we cannot think of the individual thoroughly in a true sense. There only exists something that might be called an “example”. If we think of the so-called rational relationship between thing and environment, we cannot think of the individual. (6-344)

If we are beings who are only determined by our environment, we are mere example (such as species or genera) of “universal beings”. As long as we think about individuality through a rational law of environment such as a physical or a biological law, individuality is no more than an example of a general law. It is only an example that applicable to anytime and anywhere, not indispensable to the self that is living “here and now”. Therefore, Nishida wrote “Individuality has meaning that (.....) is not thoroughly determined by environment, instead, it determines environment” (6-344). We are determined by environment. However, at the same time we are beyond environment and even form environment.

But how can this be possible? Here, Nishida adopted this idea which he called “absolute negative medium.” Nishida wrote:

In order for true dialectic activity, the substance must die and leave the environment. (.....) Moreover we can consider true dialectic activity as a determination which does not determine (in view that death is immediately life. (.....) That way, we can see a dialectic process in which the environment determines the individual, and the individual determines the environment. And we can think of the accidental, numberless individuals as being determined by place. (6-346f.)

As can be seen from the phrases “die and leave”, the individual should negate determination by environment to make himself unique and irreplaceable. An individual must deny being determined by the environment and destroy himself, as long as he is determined by that. The negation of self who is determined by environment, or death of environmental-self, makes the individual’s life into his own unique one so that “death” immediately becomes the “life”, and “absolute negation immediately becomes absolute affirmation” (6-346).

Environment is thoroughly a universal object which denies individuality. And individuality is thoroughly an individual object which denies universality of environment. Through this mutual negation, it turns out to be possible to establish such an activity as that environment determines the individual and the individual determines environment. Environment with such an activity is neither a mere physical nor biological world, but the historical world³. “(.....) we are in the historical world when we are individually determined” (6-356). In the historical world, we are beyond historical determinism and are able to make new history. In this sense, the place where the individual can truly live is the

³ The historical world is important term in Nishida’s later works. Cf. Robert E. Carter. *The nothingness beyond god*, St. Paul: Paragon House, 1997, pp.100.

historical world. “Our individual self, which is considered the limit of social and historical determinations, conversely determines history and has a creative significance for improving society. Society changes through determination of an individual self which is regarded as a forefront of social determination” (6-356).

About the above “absolute negation”, Nishida wrote:

That absolute death is immediately the life means neither noematic unity nor process from negation to affirmation, but the unity of self and the absolute other, finding the absolute other in self, finding self in the absolute other. (6-378)

The word “noematic” means “objective”. “Absolute death is immediately life” means neither objective unity of death and life nor the process where negation turns into affirmation. It means just finding in ourselves the absolute other that denies us. If absolute negation took place outside of us, it would become relative to us. Therefore, we and the absolute other are inseparable; so that we are found in the absolute other and the absolute other is found in us. Then what is the absolute other? In the next section we will discuss the “absolute other” that we find in ourselves.

2 Absolute Other

Nishida emphasized that we find the absolute other in our basis. About what kind of others we encounter at our base Nishida wrote:

One who is thought to be “thou” for me should be thought of as the absolute other. We can still think that substances exist in us, but “thou” should be independent of me, and exist outside of me. Furthermore, I become myself by recognizing “thou”, and “thou” becomes thyself by recognizing me. The one who let “thee” be “thyself” is me, and who let me be myself is “thee”. (6-415)

We can own the “substances” in such a way as handling a tool. That means it cannot yet be called “absolute other”. However, the personal “thou” refuses to be owned by us and appears as “other” to us. Moreover, we become ourselves by recognizing “thy” personality, calling out “thee”, and responding to “thy” calling. We should live in relation to “thee”, responding to each other, to be ourselves. The absolute other makes us ourselves in the distinction between “I and thou”.

Nishida further developed his thought on the absolute other to relate it to God’s agape. Nishida wrote:

“By finding the absolute other, namely “thee” as a basis of ourselves, the self-awareness of the absolute

nothingness, which I have named, must have meaning of the love. I think that Agape, which is a part of Christian theology, has such a meaning. Agape is not a longing, but a sacrifice, not a love of humans, but a love of God, not a rise from human to God, but a descent from God to human.” (6-421)

As Megumi Sakabe pointed⁴ out, Nishida thought that the personal relationship between “I and thou” occurs intersecting with the relationship to God⁵. Absolute negation does not arise from us, because it absolutely negates us. In the same way, it does not arise from “thee”. Absolute negation is far beyond us, but at the same time it acts in us. But love, according to Nishida, does not mean that we find “thee” with love. As Nishida’s words phrase it “to descend from God to human,” Agape is to descend from the absolute to the relative. The activity of the Absolute, which is not possible for us, relative beings, is acting in us. The appearance of absolute other in the basis of determining us, and the appearance of absolute negation in relative existence that is ourselves, are expressed by the word love. Although the transcendent moment of absolute other is not a result from me or thee, it is found immanently in ourselves. This situation means Agape of God.

As argued above, to find the absolute other means that we live in relation to other with negation of ourselves, and “find ourselves in the absolute other.” Nishida wrote:

By finding ourselves in the absolute other, we can find the absolute other as opposite to an extension of ourselves. And there, we can think truly that we are ourselves. We are neither a personal self because of reason or even desire. We are a personal self by loving our neighbors in the manner of Agape for God. (6-424)

By living in such negation as the absolute other, we are open to others who are absolutely different from us, without controlling others when extending ourselves. In response to Agape of God, we are defining our relationship to others by negating ourselves. Moreover, the phrase “after Agape of God” shows that this personal relation assumes our obedience to what was given by God. Here, we are connected with an area concerning absolute “ought”. In the next section, the encounter with the absolute other in the historical world will be argued, focusing on the problem of “ought”⁶.

3 The negation and the ought

⁴ Cf. Megumi Sakabe. *Nishida-Philosophy and Problem of Others* —about “I and thou”—, in Shizuteru Ueda ed. “Nishida philosophy”, Tokyo: Sobunsha, 1994, pp.60.

⁵ The Relation between “I and others” includes relation to things. About details of relation between things, others and the absolute, cf. Masato Shirai. *The dimensions of “I and thou”*, in “Yearbook of Nishida Philosophy Association” vol.1, Nishida Philosophy Association, 2004.

⁶ About details of problem of practice in Nishida’s later works, cf. Masato Shirai. *Negativity and Ought*, in “Yearbook of Nishida Philosophy Association” vol.4, Nishida Philosophy Association, 2007.

Nishida believed that we are formed by the responding relation to others. From this responding relation, the problem of responsibility arises. Also Nishida thought responsibility for others does not come out from extension of us by Eros, but from the direction of Agape.

Eros and Agape are essentially directed oppositely. We can't reach God along the direction of Eros, but can only find our extended ourselves. The responsibility or duty cannot come out from there. It cannot come out that ourselves exist for the absolute and have the "ought" for the absolute value. (6-425)

According to Nishida, we are formed through negation, and the "ought" or responsibility to others becomes possible to exist when the negation is transcendent and driven by our basis. However, in the essay "I and thou" Nishida mentioned this argument only briefly, and could not develop it further⁷. So, concerning this issue, Nishida's later work should be investigated.

Nishida wrote about the relationship between God and "ought" in the essay "human beings" (1938):

Our historical life that is mediated by absolute negation always faces that. That is, we touch the Absolute which we cannot touch. Such a leading point of the historical life is called humanistic life. In the historical realistic world, we possess self-awareness through facing the Absolute which we cannot face. When we face the absolute infinite objective expression (so-called God's word) at the limiting point of self-contradiction of the historical world, which is moving from the created being to the creating being, as the absolute contradictory self-identity, we possess the self-awareness. That is, we possess personality. Except, at this point, we do not possess any true self-awareness. (9-47)

We become ourselves, in the true sense, by facing absolute negation. Moreover, this activity of absolute negation, which is also called "absolute infinite objective expression (regarded as God's word)", is considered the activity by which God expresses something to us. Nishida wrote "the objective expression is considered as infinite ought." This objective expression is the "ought" that specifies what we must do. Our self-awareness arises from recognizing what we must do, and through accepting "ought" with relation to the Absolute. "To find ourselves in the absolute other" means that we have awareness of our true self when facing God, and the will to do what we must do.

So how can we think about this "ought"? The "ought" means that we must negate reality and create the society anew. Nishida wrote in the essay "absolute contradictory self-identity" (1939):

In the world of absolute contradictory self-identity, whatever is given to us should be given as tasks.

⁷ About development of Nishida's later works, cf. Yujin Itabashi. *The historical reality and Nishida Philosophy*, Tokyo: Hosei University Press, 2008.

We are imposed upon construct something in this world. At that point, we live our life. We are born carrying our tasks. (.....) What is directly given to our acting-self truly should be such that faces us objectively as a serious task. Reality should be such that envelops us and oppresses us. (.....) It should be such that asks us whether we do it or die. (9-180f.)

Reality has tasks, and these tasks impose upon us to construct something anew, that is to negate the given reality and to change the world. Furthermore, we cannot live our life without performing our tasks. To find the absolute other in our basis is to face the absolute negation, and a reality should be negated and constructed anew, reality becoming task in this way includes negating and innovating a historical society —“historical species”⁸ in Nishida’s terminology—. In the essay “practice and recognition of object” Nishida wrote: “we are born in a species, but we must be beings forming the species” (8-450), and the individual “is even considered to break the species in some cases” (8-450). We are born in a historical society as historical species. But at the same time, we are beyond the specific society, and should break and reform it. Nishida wrote:

Reality is reality as long as it gets over itself, and out of itself. Life is being the life as long as it is creative, contradictory, has self-identification and has a chance to break form, even though it has the fixed form of a species. (8-451)

Of course, Negation of a species does not make us depart from the species. It means an acting to make a rigid society alive. Breaking a species and forming a new species means that we must always be creative. In the essay “absolute contradictory self-identity”, Nishida wrote:

“Our life as belonging to a species is also the result of an infinite dialectic development. If we act conventionally as a species, it is a mechanization of self and death of the species. We must be creative from moment to moment.” (9-190)

We are imposed to be creative. We are made to live in reality while facing the negation and forming the reality anew. And these tasks must be considered to be breaking and reforming a historical species which we belong to.

Conclusion: The place where we live for others, with others

⁸ This word “species” results from Tanabe Hajime’s criticism. Cf. Tanabe Hajime. *The logic of species and the schema of world*, and *To make clear the meaning of logic of species*, in “Tanabe Hajime Works” vol.6, Tokyo: Chikuma Shobo, 1963. And About Nishida’s response to Tanabe’s criticism, cf. Yujin Itabashi. *Ibid.*

Based on Nishida's "theory of others", the encounter between us and others and the place where the encounter arises were discussed. In section 1 we inquired about the place where we live, and disclosed that it is in the historical world. In section 2, we investigated others whom we encounter, and it was concluded that in the activity of the absolute negation, we encounter the personal "thee" as the absolute other. And in section 3, it was shown that we cannot encounter others without negation of society or species to which we belong.

As Katsumi Takizawa pointed out⁹, Nishida clearly distinguished "I and thou" from "I and you". In Nishida's terminology, "you" is grasped in homogeneity with me, and "is mere another I and only just a neighbor (not "thou" in the true sense)" (8-69). It becomes possible for us to encounter "thou" in the true sense when we break the homologous "species", that is implied in "I and you". We encounter "thou" not as the homologous others, but as the absolute other through finding a task in our society and breaking society of ourselves. What enables us to live with others and for others is negation of ourselves and our society, and recognition of the task through the negation. In order to encounter others in the true sense, it is important for us to be open to the activity which negates the self and society, and to find a task in the response to its activity.

⁹ Cf. Katsumi Takizawa. *Ground problem of Nishida Philosophy*, in "Katsumi Takizawa works", Kyoto: Hozokan, 1972.

**Effective Catalysts for Large-scale Social Change:
An Argument from Process Philosophy and Chinese Confucianism**

Robert SMID (Boston University, U.S.A)

robert.smid@curry.edu

The impetus for this paper is a dissatisfaction with the methods for bringing about large-scale social change prevalent in contemporary Western civilization. While the Western world has achieved remarkable growth and prosperity over the last few centuries, it has done so at least in part by pressing its limits in almost every conceivable respect. This drive is expressed, for example, in the capitalist conviction that, if it is possible to make a profit doing something, someone will inevitably figure out a way to do it. At first glance, this may seem to bring with it a tendency toward progressiveness—a willingness to change as new opportunities present themselves—and the swift pace of economic, technological, and scientific development seem to confirm this. At a deeper level, however, it has engendered a fierce cultural conservatism, which maintains that the existing social practices that have proven so productive in the past should not be altered in any significant way unless it can be demonstrated with absolutely certainty that they are inadequate. That this cultural conservatism is more fundamental than any apparent progressivism is readily evident in the fact that scientific data, technological possibilities, and sometimes even economic opportunities are often suppressed in favor of existing social practices.

In some cases, such conservatism has proven to be a boon, insofar as it steadies the pace of development and protects against faddishness and its attendant volatility. More often than not, it simply results in an odd collection of curious yet relatively harmless behaviors, such as when well-meaning American consumers thought that “buying American” would remedy the challenges associated with the globalization of the industrial economy. In some cases, however, it has blinded Western civilization to the seriousness of impending crises, causing it to play fast and loose with its future in the naïve belief that the practices that have sustained it in the past will be sufficient to see it through any unperceived difficulties. It has only occasionally paid the full price for such brashness, but there is good reason to believe that its luck may be running out.

The current ecological crisis—rising global temperatures, decreasing biodiversity, mounting pollution, overpopulation, etc.—is a good case in point. Despite strong and readily available scientific

evidence substantiating these problems, there has been very little in the way of serious collective action on the part of Western civilization to remedy them; to the contrary, the strongest responses have been characterized by apathy, disbelief, and ridicule. Granted, some of this inaction may be the result of the fact that the direct impact of the crisis has been relatively minimal to date, but most scientifically credible forecasts suggest that much larger problems lie ahead, including significant rises in ocean water levels, resource scarcity, destabilized ecosystems, cancer rates, and so on. Indeed, the evidence is so strong and the potential consequences so dire that it is difficult to understand why any rational person or society would refuse to address it in a serious and sustained way.

Why, then, is there such myopia, such inattentiveness, and such despondency? Why is it that Western civilization must run headlong into an ecological catastrophe before it takes any significant steps to remedy the problem? As the history of Western civilization makes amply clear, once the problem is made manifestly clear, the full resources of the tradition will be committed to its resolution. The question, then, is not whether Western civilization will address the impending ecological crisis, but why it must wait for a catastrophe to occur before doing so. In other words, if—as the American intellectual Benjamin Franklin suggested—an ounce of prevention is worth a pound of cure, why does the West insist on waiting for an incontrovertible diagnosis before undertaking any remedy?

A partial answer to these questions can be found in the commonplace conviction that, whatever problems may accompany existing practices, it is nonetheless those practices that have otherwise enabled the broader flourishing of Western civilization. The overall success of the West over the last few centuries has been remarkable and, without a clear sense of the causes of that success, Westerners are justifiably hesitant to adopt any changes that might undermine it. In an American context, for example, proposals for large-scale change are often seen as “un-American,” insofar as they typically call into question practices that have otherwise sustained America for generations. This certainly appears to be true of the ecological crisis: its associated problems are at least in large part the result of the industrialization that made Western countries the economic powerhouses they are today; how, then, are Westerners supposed to address these problems without significantly compromising the basic source of their own prosperity?

This problem has been compounded by the failure of the scientific community to make consistently reliable predictions about the future. Whether its predictions have been optimistic or pessimistic, they have been wrong with sufficient frequency that much of the public refuses to take such predictions seriously unless it is accompanied by evidence that they can personally confirm. Obviously,

this is a particular challenge for ecological issues, as such evidence may only become readily available once the situation has become so severe as to be potentially irreversible. In any event, the end result is a public that, for at least partially understandable reasons, is doubly hesitant to act on any warnings of ecological crisis.

There are likely several other pieces to the social puzzle concerning why Westerners are so hesitant to adopt significant changes to existing social practices in the face of impending crises. Yet it is worth pausing for a moment and asking what a philosopher like myself is doing asking such questions. Social change is already the stated subject matter of another discipline, and one that—like most others—hardly welcomes philosophers coming around and mucking about in their business. My reason for mucking about in this manner, however, stems from my conviction that a crucial part of the problem described above can be found in the metaphysical assumptions driving Western civilization—assumptions that are so fundamental and abstract that only philosophy is typically willing to take them as its subject matter.

Specifically, I locate the Western failure described above in the general assumption that reality is, at its most basic, a static entity. While there may be changes from moment to moment, such changes are merely secondary features of reality that exemplify more basic, unchanging universal laws. This is exemplified in the Forms of Plato, the theory of essences described by Aristotle, the immutable God of Christianity, the unchanging One of neoplatonism, the rational world of Descartes, the noumenal world of Kant, and so on. Consistent with this view of reality, the social and cultural ideals set forth within Western civilization have also been static: utopias are social forms of organization that embody the ideal relations of the static reality they are meant to reflect. Hence, there is no suggestion of change within the garden of Eden (once God's work was done), nor in the Christian notion of Heaven, nor in any of the other intervening utopias; to the contrary, such utopias are typically defined by the absence of change and the new challenges that always accompany it.

The net effect of this orientation is that, to the extent that a civilization has confidence in its social organization, it becomes equally resistant to change in such organization; if it has “gotten it right”—or at least, to the extent that it believes it has done so—it shouldn't need to change in any significant way. Of course, Western civilization has changed throughout its history, but such changes have been addressed in a manner consistent with the aforementioned assumptions. I will refer to this as the “engineering” model of change, whereby change is only undertaken when problems have been identified and confirmed, and the solutions undertaken are limited to the problem as identified. The

net effect of this model is to address only genuine problems without unnecessarily compromising the strength of the surrounding system of organization.

As suggested earlier, while this model has been for the most part effective at guiding Western civilization through the twentieth century, there is good reason to question its adequacy for the twenty-first. At present, we are able to shape our world with such speed and magnitude that it is entirely possible for us to bring upon ourselves disasters from which we cannot fully recover. As a result, the costs, both material and moral, associated with continuing to employ this model may no longer be sustainable. What model, then, is to replace it? Outlining such a model is more than I can accomplish in this paper, but if the problem lies with one of the assumptions dominant within Western civilization then it seems promising to look to traditions that have embraced contrasting assumptions for clues. In this paper, I look to two indirectly related traditions—Chinese Confucianism and Whiteheadian process philosophy—that have operated on the assumption that reality is, at its most basic, not static but in perpetual flux.¹ While neither may be viable models for the organization of Western civilization, they may at least provide some guidance for the development of a more sustainable approach to large-scale change in the twenty-first century.

The Chinese Confucian alternative is centered around the concept of harmony. Although the Chinese character for harmony—*he*—is most commonly used as a basic conjunction (“and”), it has a much richer etymological and conceptual history. On the one hand, the graphs composing the character, going back as far as early bronze inscriptions, represent a plant and a mouth (Yao 2002, 170); taken together, these indicate the need to balance the use of a variety of diverse flavors to create a tasty dish (Fung 1952, 36; see also Xu and Lee, 4178).² On the other hand, the character was frequently applied to traditional singing practices in ancient China; quoting the *Shuōwén Jiězì* (*Explanation of Words and Characters*), which states that “‘harmony’ is one replying to another” (2a, *kou bu*, 32a), Zhang Dainian explains that the term reflects the way in which one singer would respond to another in traditional musical form (270).³ Harmony, in this context, is thus the bringing together of otherwise disparate voices into a common refrain.⁴

¹ Note: this assumption may be operative in other traditions as well (e.g., non-Chinese forms of Confucianism, certain varieties of Buddhism); my treatment of these two is not meant to be exclusive as much as it is indicative.

² Xu and Lee do not give the sources for the etymology, it has been reinforced by several late Zhou Dynasty texts cited by Zhang (2002).

³ Zhang is quoting from a Chinese-only edition of text (see bibliography, below); the translation appears to be his own.

⁴ It is worth noting that this does not require the sublimation of one voice to another as it typically does

Although the context of these two roots are different, they share a common concern. This connection is recognized in the *Zuo Zhuan* (*Commentary of Zuo*), which records Yanzi (Yan Ying) as arguing that harmony is different than mere assent: “If you would try to give water a flavor with water, who would care to partake of the result? If lutes were to be confined to one note, who would be able to listen to them? Such is the insufficiency of mere assent” (10, *Zhao* 20, 679). Harmony, he insists, may require that things be brought together into a unity, but one cannot do this without acknowledging and embracing diversity. True harmony integrates diverse elements in a way that does not diminish variety or eliminate opposition, but rather reconciles them in a new way within a broader context.⁵ This can serve as a working definition of *he* for the purposes of this paper.

The importance of harmony lies in the fact, although it consists of the reconciliation of conflicts within a broader context, there is nothing about it to suggest that its ultimate goal is the elimination of such conflicts. Rather, change and its ensuing conflicts are taken to be a basic feature of reality, such what a world without novelty and change is effectively inconceivable. A successful implementation of harmony is thus not one that eliminates conflict but one that recognizes and reconciles conflicts as they emerge. In other words, harmony is best exemplified not in the *reconciliation* of conflicts but in *reconciling* them. As Yao writes, “harmony is not considered a static identity, in which everything holds to its status quo and nothing is to be changed. Rather, harmony is regarded as a result of constant changes and reconciliation of conflict” (178). This is not to say that there is no order or stability in harmony; to the contrary, harmony is precisely the passing order achieved in the midst of perpetual change.⁶

This balancing of stability and change was achieved with similar results in the process philosophy of Alfred North Whitehead. In his process vision, actual occasions are never static but always moving toward completion in some novel concrescence, at which point they become the resources for another set of concrescing actual occasions. In the midst of all of this change, stability and order are

in Western accounts of harmony, whereby one voice sings the melody that would persist even without a harmony, while a second voice finds ways to complement that leading voice with tones of agreeable proportion. Insofar as it doesn't emphasize simultaneity, the Chinese account is not pressed to privilege one voice over the other, and can thus allow for a mutuality and equality that is often lost in Western accounts of harmony. While this difference may have bearing on the way that the concept has developed within each context, I do not think it should be overemphasized.

⁵ Zhang does an excellent job of supporting this understanding of harmony with passages from late Zhou Dynasty texts, including the *Analects* (*Lunyu*) and the *Sayings of the States* (*Guo Yu*) and *Zuo's Commentary* (*Zuo Zhuan*); see 270-272 for more information

⁶ This balance was most completely developed by the Neoconfucians in their complementary notions of *li* (principle) and *qi* (material force).

preserved both by the influence those entities have on subsequent occasions as well as by their inclusion within the consequent nature of God. Like the Confucian tradition, then, Whitehead's process vision emphasizes the pervasiveness of change while simultaneously recognizing the importance of achieved moments of relative stability.

The advantage that process philosophy has over the Confucian tradition, at least relative to the issue at hand, is that it was developed as an alternative to prevailing Western ways of thinking. As a result, it is more attuned to the shortcomings of the Western tradition and more directed toward identifying solutions to those problems. Consider, for example, when Whitehead writes that "order is not sufficient. What is required, is something much more complex. It is order entering upon novelty; so that the massiveness of order does not degenerate into mere repetition; and so that the novelty is always reflected upon a background of system (1979, 339). This is a critique of the position described at the opening of this paper, which seeks an enduring perfection and accepts change only grudgingly. The point is not to do away with the quest for order altogether, but to balance with a simultaneous pursuit of novelty. Thus, he writes, "the art of progress is to preserve order amid change and to preserve change amid order" (28). Although not emphasized in these quotes, the rhetorical edge of Whitehead's work is to emphasize the importance of change in a properly balanced metaphysics.

What Chinese Confucian and Whiteheadian process philosophy remind us is that everything in our experience is subject to change, and that even our goals and ideals become liabilities to the extent that we fail to remember this. Rather than latching on to supposedly eternal goods, then, the best we can do is to make our decisions at each moment with the best information that is available to us at the moment—and, as each moment passes, to be prepared to make each decision anew as context dictates. Such an orientation has the advantage of allowing its holders to judiciously attune themselves to changes as they emerge, without either rushing to embrace any emerging novelty nor requiring a catastrophe to acknowledge the need for change.

In contrast to the "engineering model" dominant in Western civilization, the model developed within the Chinese Confucian and process philosophical tradition is perhaps best understood as a "scientific model," where the term "scientific" refers not to a privileging of the natural sciences (which would make little sense in the Confucian context) but rather to the outlook that acknowledges the uncertainty of any present moment and seeks to form constructive hypotheses about the most promising courses of action based on the best information available. In this respect, the Confucian "investigation of things" would qualify no less than the Whiteheadian _____.

Whitehead was one of a small number of intellectuals at the beginning of the twentieth century who recognized that the increasing speed and magnitude of the changes made possible in the late modern world demanded a change in the way we respond to those changes. The lead scientists of the Manhattan Project had a similar realization: we can no longer act as we will and change our ways if the consequences are less than desirable; rather, we must anticipate, to the best of our abilities, the likely results of our action before acting, as our ability to act may well have surpassed the wisdom of existing practices. Whitehead recognized this when he wrote that

In the conditions of modern life the rule is absolute, the race which does not value trained intelligence is doomed. Not all your heroism, not all your social charm, not all your wit, not all your victories on land or at sea, can move back the finger of fate. To-day we maintain ourselves. To-morrow science will have moved forward yet one more step, and there will be no appeal from the judgment which will then be pronounced on the uneducated (1917, 28).

In the tomorrow of the twenty-first century, neither the most fervently held ideals nor the best of intentions will save us from poorly conceived ecological decisions. The only way to avoid the judgment that inevitably follows is to learn to make decisions that anticipate likely outcomes on the basis of the best available information. In other words, Western civilization must learn to anticipate change, and embrace its attendant novelty with the same passion that it currently employs to preserve existing orders.

The adoption of a Chinese Confucian/Whiteheadian process account of change is no panacea for the challenges of the twenty-first century, but it may help us to avoid catastrophes from which we cannot recover (and perhaps some that we can). As Whitehead noted, “it is the business of the future to be dangerous; and it is among the merits of science that it equips the future for its duties” (1925, 291). The question for the West is whether, aware of its ever-increasing capacities for self-destruction, it will choose to equip itself for the future or whether it will continue to close its eyes and hope for the best. For everyone’s sake, let us hope that it can take on the wisdom that some of its intellectual leaders evinced almost a century ago.

We are in the World and the World is in us

Maria Teresa TEIXEIRA (Centro de Filosofia da Universidade de Lisboa, Portugal)

mt_teixeira@netcabo.pt

When Francis Xavier¹, a Jesuit missionary at the service of John III King of Portugal, arrived in Japan in 1549, he brought with him a message of catholicity, that is to say a message of universality. His mission was to spread the Gospel, but his attitude was an all-embracing and all-inclusive stance. The message of his teaching was one of togetherness in diversity and oneness in multiplicity. Were he to have lived in the 20th century, he might have drawn on process philosophy and philosophers such as Henri Bergson, Sri Aurobindo, Kitaro Nishida, and especially Alfred North Whitehead.

“We are in the world and the world is in us.”² This is how the late Whitehead sums up the fact that, within the realms of reality, there exist no two detached occasions. The actual world is a community of occasions that form ‘a solidarity of many actual entities’.³ Togetherness pervades all experience, whether we consider a single actual occasion, or the whole stream of experience.⁴ The actual world is a community of temporal actual occasions, designated by Whitehead as epochal.⁵ The notion of togetherness is present in the Whiteheadian ontological principle, whereby there is real togetherness in the constitution of every actual entity. The ontological principle states that everything in the world can be referred to some actual entity: nothing exists in separation from actual entities.⁶ Togetherness is thus found in the becoming of the world, and in the becoming of every actual entity. Whitehead’s ontological principle means that everything must be either in actuality or in potency.⁷ This way of being either in actuality or in potency is always a way of being in solidarity. Thus existence must always be some form of togetherness.

The actual world is a community of epochal entities. They always refer to one another as they come into being. The actual world is constant passage into novelty.⁸ But novelty is possible because there is togetherness in the community of actual occasions that necessitates creativity. “The epochal occasions are the primary units of the actual community, and the community is composed of the units. But each

¹ The foundation of Sophia University (where the 8th Whitehead International Conference is held) can be traced back to Francis Xavier who intended to found a university in Japan in view of the human qualities of the Japanese people.

² *Modes of Thought*, p. 165.

³ *Process and Reality*, p. 40 [65].

⁴ *Ibid.*, p. 189 [288].

⁵ *Religion in the Making*, p. 91.

⁶ *Process and Reality*, p. 32 [48], p. 43 [68], p. 244 [373].

⁷ *Ibid.*, p. 40 [64], 46 [73].

⁸ *Religion in the Making*, p. 90; *Concept of Nature*, p. 54.

unit has in its nature a reference to every other member of the community, so that each unit is a microcosm representing itself the entire all-inclusive universe.”⁹ It is patent actual occasions need one another for their communal existence and they can only exist in togetherness. The old Cartesian maxim, frequently quoted by Whitehead that states that an existent requires nothing but itself in order to exist is thus refuted.¹⁰ The refutation of the Cartesian dictum implies the solidarity of the whole universe and corroborates the ontological principle. Nothing comes floating into the actual world from nowhere.¹¹

A common world is shared by all actual entities; sharing a common world means that the world also shares in every actual entity that shares in the common world. The huge complexity in each and every actual entity does not rob it of its unity and individualisation. However, complexity means interdependence of all occasions within the common world.

Every new actual occasion is a novel entity emerging from the total universe and comprising the actual world, as well as pure potentiality. Actual occasions are self-creative. “A new creation has to arise from the actual world as much as from pure potentiality: it arises from the total universe and not solely from its mere abstract elements. It also adds to that universe. Thus every actual entity springs from that universe which there is for it. Causation is nothing else than one outcome of the principle that every actual entity has to house its actual world.”¹² The process of coming into being is a process of novelty and also a process of new addition to the actual world. The actual world is given for the new creature, and, in turn, the novel entity accommodates this antecedent actual world that is given for it. “The many become one and are increase by one.”¹³ The next sentence in *Process and Reality* enlightens Whitehead’s very notion of multiplicity, as well as the temporal nature of the actual entities that are the active elements of these multiplicities. It reads as follows: “In their natures, entities are disjunctively ‘many’ in process of passage into conjunctive unity.”¹⁴ A new addition to the universe is not mere repetition; on the contrary, it is pure novel unification drawing on the whole universe. It is a temporal process that necessitates the determination of creativity. The creatures are its outcome. “Thus an actual entity is the outcome of a creative synthesis, individual and passing.”¹⁵

Togetherness is also a ground concept in other process thinkers’ philosophies like Sri Aurobindo and Bergson’s. Bergson describes reality as the flow of succeeding states of consciousness that interpenetrate and augment this flux as they come into being. This continuity is heterogeneous, i.e. different states can be identified and acknowledged. However, they are not separate, neither are they indistinguishable for they exhibit a togetherness that preserves their individuality. The flux of life presses on as it carries

⁹ *Religion in the Making*, p. 91.

¹⁰ *Process and Reality*, p. 6[10], p. 50[79].

¹¹ *Ibid.*, p.70 [108], p. 244 [373].

¹² *Ibid.*, p.80 [123-124].

¹³ *Ibid.*, p.21 [32].

¹⁴ *Ibid.*

¹⁵ *Religion in the Making*, p. 93.

along all the indestructible past, which is a togetherness of diverse states past and present. Bergson's multiplicities are multifarious even though they cannot be separated into their different composing elements. Aurobindo also emphasises multiplicity in so far as he underlines unity as the foundation of multiplicity, which in turn founds unity back again.¹⁶ He conceives of an essence of life that is the movement of a universal existence; "the play and movement embodies itself in a multiplicity of forms, a variation of tendencies, an interplay of energies."¹⁷

Togetherness is present in nature. In *Concept of Nature*, Whitehead focuses on the bifurcation of nature. It consists in considering two different natures, instead of one nature, whole and cohesive. There is one nature, which is submitted to causal mechanisms, and another that includes human beings as self-determining. The bifurcation of nature is the unfortunate result of confusing "what the mind knows of nature" with "what nature does to the mind"¹⁸. This distinction about what is in nature and what is in the mind should not be considered as valid; it splits reality, which is one, into two different systems of actuality. It is interesting to note that in Aurobindo's doctrine, the bifurcation of nature is also clearly rejected. He writes in *The Life Divine*: "earth-existence cannot be the result of the human mind which is itself the result of earth-existence."¹⁹ Now, if we bear in mind there is an irrevocable togetherness in the whole universe, we will find that solidarity precludes the bifurcation of nature. "Natural philosophy should never ask, what is in the mind and what is in nature."²⁰

As Whitehead says in *Concept of Nature*, nature is passage.²¹ In *Modes of Thought* he writes: "there is no nature apart from transition, and there is no transition apart from temporal duration. This is the reason why the notion of an instant of time, conceived as a primary simple fact, is nonsense."²² Every undertaking of nature requires other undertakings of nature, one leading into the other. Temporality seems to originate in this dynamic solidarity. There is a multiplicity of existences that intertwine and unite giving rise to the emergence of this inexhaustible duration of the universe. Their existence requires togetherness. In a process world, being in isolation is an absurdity. Aurobindo puts it in a slightly different way: "The evolution of human mind and life must necessarily lead towards an increasing universality."²³

Whitehead describes basic experience as referring to others. Primary worth is the very foundation of our existence.²⁴ Original experience takes value into consideration. It is but a vague experience. The feeling of worth comes with the vagueness of first experience and with its differentiation from other value

¹⁶ *The Life Divine* pp. 65-67, pp. 161-162.

¹⁷ *Ibid.* p. 65.

¹⁸ *Concept of Nature*, p. 27.

¹⁹ P. 249.

²⁰ *Concept of Nature*, p. 29-30.

²¹ P. 54.

²² *Modes of Thought*, p.152.

²³ *The Life Divine*, p.1093.

²⁴ *Modes of Thought*, p. 109.

experiences. Clear perception is not a primary experience. The vague feeling of primary experience allows for differentiation and for some kind of individualisation. In Whitehead's words: "the notion of worth is not to be construed in a purely eulogistic sense. It is the sense of existence for its own sake, of existence which is its own justification, of existence with its own character. [...] The fundamental basis of this description is that our experience is a value experience, expressing a vague sense of maintenance or discard; and that this value experience differentiates itself in the sense of many existences with value experience; and that this sense of the multiplicity of value experiences again differentiates it into the totality of value experience, and the many other value experiences and the egoistic value experience. There is the feeling of the ego, the others, the totality. This is the vague, basic presentation of the differentiation of existence [...]"²⁵

Experience is thus a realisation of worth, be it positive or negative. And actuality is worth in itself. There is a vague sense of importance that differentiates and individualises the actual occasion from the totality from which it emerges, and also from every other emerging actual occasion. Eventually, an actual entity is both its own means of attainment and its own end. In the completion of this temporal process of self-development, a sense of worth is beyond the actual entity itself and manifested in self-attainment.²⁶ Initial worth is vague and indefinite, but final worth enriches and surpasses self-realisation. Value experience thus both constitutes and transcends the actual entity.

"Everything has some value for itself, for others, and for the whole."²⁷ Togetherness is the very foundation of value. No worth is to be found by itself and for itself. Worth always emerges in relation to others; existence emerges likewise. No existence is to be found by itself and for itself. Worth and existence are both instances of togetherness. Solidarity is the character of the actual world. The elements of the world are not separable and comprise a unity. Solidarity is a kind of ontological allegiance to reality, for there is no other true way of existence.

Western civilisation mainly conceives of a world composed of differentiated elements that can be taken apart and assembled back together with no inconvenience to the whole. Each part taken per se is separate and unrelated to others. It can be analysed and envisaged by itself, for "it requires nothing but itself in order to exist." It is often combined with other pieces making up a whole; the sum of these separate elements makes up a totality that is reduced to the very addition of its parts. The whole is thus equal to the sum of its parts. Each part is self-sufficient; it can take advantage of other elements in the constitution of the world to improve its own performance in the actual world. In the absence of any relationship to other elements, each component is thus at ease to appropriate and make use of others with no concern for their common origination. This kind of appropriation may imply the exhaustion and destruction of important parts of a totality. These parts are not just one more addition to a set of pieces;

²⁵ *Modes of Thought*, p. 109-110.

²⁶ *Process and Reality*, p. 350 [531].

²⁷ *Modes of Thought*, p. 111.

they have a particular worth. Taken by themselves they may seem destitute of any value, for they have been torn apart from their original source. As they were integral parts of this source, the source itself is depleted. Taking one part away from the whole destroys the relationship between whole and part. It is not a mere decrease in quantity, but a question of quality and integrity. Loss of integrity means that a coherent whole no longer exists, because there was ‘an arbitrary disconnection’²⁸ of fundamental elements of reality.

Process philosophers other than Whitehead have emphasised the importance of the whole over its parts. Henri Bergson argued the whole holds more than the sum of its parts; for instance, an idea already contains the whole of the image that grows out of it and thus materialises it. By dividing a whole spatially we get the parts that compose it. However, the idea is complete and originates from itself, not from the successive parts to which we can reduce it by way of our intellect.²⁹ He writes: “there is an ideal scheme of the whole, and this scheme is neither an extract nor a summary. It is as complete as the image will be when called up, but it contains, in the estate of reciprocal implication, what the image will evolve into parts external to one another.”³⁰ As a matter of fact, the idea includes more than what results from it. The same applies to movement and meaning. Movement is more than the points of a trajectory into which it can be decomposed; likewise, words draw their meaning from the whole context from which they emerge, through the relations which they express in the whole.³¹

Others, like Aurobindo, consider our consciousness as causing division: “In our separative consciousness, imperfectly visited by glimpses of catholicity and universality, ... things exist as opposites.”³² Division leads to the denial of togetherness and enhances the separative principle.

Nishida regards the unifying experience as foundational. He writes: “Only when there is a unifying self does nature have a goal, take on significance, and become a truly living nature. [. . .] we immediately grasp a certain unifying reality in the whole.”³³

Wholeness relates thus to worth, the value of any existent in virtue of its very existence, which founds itself on the worth of the world. The value of the world is based on the solidarity of all creatures. Everything has some value in a world of togetherness. And everything relates its worthiness to the value of everything else. “We have no right to deface the value experience which is the very essence of the universe. Existence, in its own nature, is the upholding of value intensity. Also no unit can separate itself from the others, and from the whole. And yet each unit exists in its own right. It upholds value intensity for itself, and this involves sharing value intensity with the universe. Everything that in any sense exists has two sides, namely, its individual self and its signification in the universe. Also either of

²⁸ *Process and Reality*, p. 6 [9].

²⁹ Cf. « L’effort intellectuel » in *L’énergie spirituelle*.

³⁰ “Intellectual Effort” in *Mind-Energy*, pp. 198-199.

³¹ *Ibid.* p. 208.

³² *The Life Divine*, p. 299.

³³ *An Inquiry into the Good*, p. 71.

these aspects is a factor in the other.”³⁴ Value intensity concerns the individual as well as the whole universe.

In process thought, morality thus emerges from the universe because value is found at its very core. Value has an ontological nature. Existents come into being as value entities; the sheer fact of existence carries value with it. In this way, ethical principles are grounded on an ontological foundation, which is the sole source of their legitimacy.

The ontological foundation of ethics relies on the ontological categories in the Whiteheadian system. Ethics is no separate philosophical subject because morality is inherent to the world, i.e. order is ontological. If value is constitutive of being, then there is no positive need for prescribing rules. Value emerges as beings come into existence. Their particular modes of being accommodate value, so that value is immanent to reality and morality elicited from its different modes of being. Process aims at greater intensities of value. Freedom and novelty stand at the root of this continued creation of novel value intensities. The community of existents originates worthier forms of experience. There is a sort of “righteousness in the nature of things”³⁵ that is quite revealing. The conformity to this righteousness gives rise to harmony in the actual world; and the deviation from rightness gives rise to evil.³⁶ Evil is destruction and degradation aiming at elimination. It is descent towards worthlessness.³⁷ However, “harmony is limitation”, in so far as ‘unlimited possibility’ is fruitless. Value emerges from this restriction. “Thus rightness of limitation is essential for growth of reality.”³⁸ Harmony introduces order into reality, so that actual occasions share a common background that gives them unity. They cannot be torn away from their background. Their isolation and uprooting violates the nature of things, disrupts the process of nature and causes relentless evil. The harmonious growth of reality is the only mode of being consentaneous with process.

The creatures of process create themselves. As they come into being, they modify their environment but they must remain an integral part of it. Actual occasions are self-determining; and in so being are responsible for themselves, and for their reflection onto the actual world. “The point to be noticed is that the actual entity, in a state of process during which it is not fully definite, determines its own ultimate definiteness. This is the whole point of moral responsibility.”³⁹

Actual entities have value for themselves, for each other and for the actual world taken as a community that is whole. Togetherness between the individual and the world demands a convergence and intensification of values. Harmony emerges from such an adjustment and strengthening of values. In Whitehead’s words, this is called ‘world-loyalty.’⁴⁰

³⁴ *Modes of Thought*, p. 111.

³⁵ *Religion in the Making*, p. 63.

³⁶ *Ibid.* p. 61-62.

³⁷ *Ibid.* p. 95-96.

³⁸ *Ibid.* p. 152. Cf. *Science and the Modern World*, p. 94.

³⁹ *Process and Reality*, p. 255 [390].

⁴⁰ *Religion in the Making*, p. 60.

Eco-sophia, the wisdom of living together with all creatures in our home of individual and common existence leads us to ourselves as individuals, and also to a community of beings that includes all existents. The worth of these beings generates an ontic praxis that does away with normative ethics. It strengthens solidarity amongst beings and encourages self-realisation. The world, composed of a diversity of individuals, remains whole and entire. It includes all existents in togetherness. The world emerges as an undivided, all-encompassing process wherein all constituents are also whole and all-inclusive. Individualisation does not preclude togetherness and differs greatly from separateness. Immanence and transcendence come together in so far as actual entities present themselves as wholes that integrate the actual world, and as individualisations that are unique and add onto the world community.

As our civilisation comes closer and closer to a dead end after centuries of rapacious assault on nature, Whitehead's words acquire renewed significance: "Every organism requires an environment of friends, partly to shield it from violent changes, and partly to supply it with its wants."⁴¹ "Thus each occasion, although engaged in its own immediate self-realisation, is concerned with the universe."⁴²

⁴¹ *Science and the Modern World*, p. 206.

⁴² *Modes of Thought*, p. 167.

**The essence of today's "ECO" movement and its twofold dangers
—with Heidegger's criticism of technology—**

TSUDA Yoshio (Sophia University, Japan)

yotsuda@hotmail.co.jp

The strong earthquake in Northeastern Japan May 11, 2011, and the ensuing tsunami damaged the Fukushima-daiichi nuclear power plant, causing a widespread emission of radioactive substances in Eastern Japan and large-scale power failure around Kanto-area. Therefore, right after the earthquake, reconsideration and suspension of previous ecological policies begin especially in Japan and Germany. No doubt this reconsideration will not be very radical, because the accident of the nuclear plant is just a technological problem, to be solved in the horizon of the technology, the same horizon in which today's global ecological problems or energy policies are located. As a mathematical problem must be solved completely in the horizon of mathematics, ecological-political problems or energy-political problems will be solved in the horizon of technology. However, the situation offers an appropriate occasion to think about technology itself and the essence of today's ecological-political movements, for the earthquake revealed the problems of energy, ecology and technology in a shocking way. Real damage will be compensated sooner or later by science and technology, but the essence of the damage, which is revealed by this accident, must not be forgotten and must be kept in mind by philosophers as a fundamental problem. One of the important roles of Philosophers is to reconsider actual movements and to reveal their essence. Philosophy cannot solve technological problems or damage directly and cannot advance technology itself, so that people often think that philosophy is useless. But philosophy must not be required to solve such practical problems directly, because the horizon of the problem is fundamentally different. Meanwhile, technology cannot reconsider technology itself. The essence of technology is not a technological problem, but a philosophical one.

Let us try to think about the essence of technology and of today's ecological-political movements with the help of Heidegger's thinking of technology. Heidegger is one of the philosophers who fundamentally analyzed and criticized modern technology, and his thinking is also a prophecy for today's movements. Today we hear his thinking again and then we consider the current phenomena in our own way. We will reveal the problem of today's technology and ecological-political movements as a twofold danger, namely, an intrinsic danger and a fundamental danger. "Intrinsic" means that, today's ecological-political movements, especially "eco" movements in Japan, have internal fallacies in the technological-ecological horizon. On the other hand, the "fundamental" danger is a matter of the horizon

itself. Both dangers are revealed by this earthquake.

1. Heidegger's thought on modern technology and the essence of technology
2. The essence of today's eco-movements and their intrinsic dangers
3. The fundamental dangers of technology revealed by the earthquake

1. Heidegger's thought on modern technology and the essence of technology

Late Heidegger's criticism of modern technology includes a fundamental thought that extends to today's ecological-political movements. This paper will bring out the implications of Heidegger's thought totally for today's eco-movements and our way of thinking the world, things and humanity. Then we must simplify violently his thought itself.

In his lecture "the Question of Technology" (1953), Heidegger showed how a modern technology discloses each thing and to bring it before us, as "asking for a return" (Herausforderung)(cf. GA7, 15). "(such asking for a return) addresses a forcible request to nature to provide energy, and this energy is what as such can be asked for and stored up."(ibid.) Such forcible requesting and storability of energy is the typical character of modern technology and it makes the difference between the modern age and what went before; an old windmill, for example, won't bring such a forcible demand on the wind in order to get storable energy. This way of regarding nature as an energy resource underlies activities of forcible requesting, squeezing, exploiting(stellen). In the case of coal or ore, the outcrop of ore is already imaged (vorgestellt) in the view of exploiting and can be imaged only in such a way, and the ore is already assessed with regard to such exploiting. The earth's area is forced to be included in this exploiting. In this way the earth' area becomes a mine, and things are exploited one after another, ore for uranium, uranium for atomic energy, atomic energy for controllable destructive actions (cf. ibid., 27f.). In this situation, human beings are also exploited in the series of exploiting and using. Heidegger demonstrated this fact by pointing to such expressions as "human resources (Menschenmaterial)", "clinical material (Krankenmaterial)". Heidegger calls this sequence of exploiting and using a levying (bestellen), and he combines exploiting (stellen) and levying (bestellen) under the well-known term "Ge-stell"(the set of the tendencies to exploit and levy everything one after another). The essence of modern technology is the Ge-stell.

Then, for this modern technology, what is the world? What is nature? In other words, how and in which form will the world or nature be exploited by modern technology or natural science? The answer is energy itself. Energy is what is levied with regard to its ability of serving, transforming, storing, and in this way energy stands in calculability. For modern technology or natural science, the world becomes the total network of all the calculable movements, and the thing is defined as something calculable.

Furthermore Heidegger points out the lack of recollection (*Besinnungslosigkeit*) as a fundamental character of technology itself. “Technology as the highest form of rational consciousness, and the lack of recollection as the lack of ability to connect with what to be questioned—because of technology’s state which is controlled and is shut out from itself— belong together. Both are the same” (“The overcoming of metaphysics”, 1936-46, GA7, 85f.). Technology controls its own course, therefore it can advance without resistance on this course, but it has no opportunity to reconsider itself or to recollect its non-technological roots.

One of the virtues of Heidegger’s thought is this sharp criticism. His thinking reveals our way of behaving towards things, in which we already consciously or unconsciously involved, and extracts its fundamental essence.

Then we can ask Heidegger, what can we do in regard to technology? Must we immediately resist it? Is there any realistic alternative? Or, what is brought about for us, when the essence of the technology is revealed as *Ge-stell*? What kind of effect does this thinking have? These ways of asking are already too hasty and probably inappropriate. Heidegger gives us a subject of thinking in this way. “This question is not at all too late, whether we experience ourselves consciously as that whose behavior, sometimes obviously and sometimes hiddenly, is everywhere exploited by (in) *Ge-stell*. This question is not too late before anything else, whether and how we consciously let ourselves in where the *Ge-stell* is dominant”(GA7, 25). Today we will try to answer these questions with regard to the current ecological trends, especially our daily life in Japan. Heidegger’s remarks will help us to reveal the essence of today’s movements and policies.

2. The essence of today’s eco-movements and the intrinsic dangers

In Heidegger’s era the biggest topic of science was atomic energy, for it is the most extreme way to levy energy from substances. Today’s ecological movements and policies rely on this energy too, but, curiously, it seems that what is pushed forward in current ecological-political discussions and appeals is almost exclusively the amount of CO₂-emission. The existence of atomic energy is often lost to view. This fact demonstrates not that the CO₂-problem is new and that Heidegger could not anticipate it, but rather that we are still on the modern technological rails Heidegger has mapped, and moreover, we have lost recollection and thinking at a lower level and there are “intrinsic dangers” of today’s ecological trends.

First we will survey today’s global trends of ecology. In the U.S.A., President Barack Obama advocated the “Green New Deal” ecological policy, which consists of some concrete plans, for example, a

shift from fossil fuel, introduction of natural environmental energy, “modal shift” (the shift of the means of transportation, improvement of the high-speed railways and introduction of electric vehicles), a “smart grid”(the improvement of the new electricity network), etc. This policy is in essence the promotion of business, economy and employment by means of ecological care. The policies which constitute the Green New Deal lead to the reduction of CO₂-emission, which will result when energy is unified into the form of electric power by the shift from fossil to electric power, when the power-transmission is made more efficient, and, when the rate of fossil fuel in power plants is reduced.

The ecological movement in today’s Japan, named the “eco” movement, is also in essence the promotion of the economy, and its contents are the selling of new goods, such as more efficient electronic appliances, air conditioners and refrigerators, electric vehicles, power generating systems and solar panels for each home. What becomes the criterion of “ecological efficiency” here is again the amount of CO₂-emission. Now we can judge that in today’s ecological trends there are two fundamental concepts, promotion of economy and standardization of CO₂-emission.

Before analyzing these two concepts, we must note that today’s “eco” movement in Japan has a typical character which is new and technological, bound by Ge-stell.

In Japan there were various other ecological trends in the past, such as “energy-saving (sho-ene)” movement (in 1980’s), the recycling movement (in 1990’s). In those periods, various environmental problems, for example, the drying up of the energy resources, environmental pollution, the hole in the ozone layer, climate change etc. were widely understood by Japanese people and CO₂ was not yet the criterion of ecological care. Therefore Japanese people had a general sense of crisis and consciousness of the need for daily care. In each home people paid attention to the waste of gas, water, electric power etc., they used daily goods and instruments carefully and saving was encouraged. These movements drew on the familiar Japanese virtue of “saving(setsuyaku)”.

By contrast, today’s “eco” movement encourages people to replace old goods with new products, advertising a reformation of the daily saving sense. “To buy new products is more ecological than to keep on using old products”. People are robbed of the sense of saving and keeping, and they now see the goods and products in terms of CO₂-emission or energy efficiency. Today, by the standardization of CO₂, everything is measured by the ability of reduction of CO₂. Sunshine is seen as an unstable energy resource and the forest as a CO₂-absorber and O₂-emitter. What happens in the “eco” movement is a standardized exploitation of everything for CO₂, a levying of everything as much as possible for energy. Today’s “eco” movement in Japan is very different from the old ecological trends.

Of course, in today’s real policies, any policy that does not make for economic growth won’t be accepted. In this sense such ecological policies are quite rational and reasonable. However, we find a characteristic lack of criticism and reflection in these movements in general.

To show this, first we focus on the standardization of CO₂-emission. CO₂ has become today a most significant and almost the only measure in the ecological movements. However, we must notice that the

problem of CO₂ is one of the global environmental problems. The partial regional pollution by industry or the risk of radioactive pollution by nuclear power plants constructs also the environmental problems. Now, why and how has the problem of CO₂ almost monopolized the current environmental debate? Because CO₂ has the character of highest measurability and its measurability is probably higher than energy itself. The fact that the United Nations framework convention on climate change in 1997 (“COP3”) adopted “the Kyoto Protocol”, in which the industrialized nations set the reduction level of CO₂-emission, is the result of the character of CO₂ as the most useful measure. Moreover, by emissions trading, the amount of CO₂-emission can be traded between nations and when a nation goes over the emission level, it is obliged to pay to the other nation which doesn’t reach the level. CO₂ as a measure unit has tradability with regard to quantity, and this tradability is exactly the reason of CO₂’s higher measurability and usefulness, for energy itself cannot be traded without cost in the present technology. The amount of CO₂-emissions can be traded between nations far apart in a moment and also between present and future. Furthermore, the other partial regional pollutions cannot be measured by a numerical value and cannot be removed by money. Environmental pollution cannot be removed to other areas by trade. CO₂ can do it, and easily.

Such measurability and tradability are the essential characters of the modern technology Heidegger foresaw—but Heidegger described the measurable and tradable unit as “energy”—. In this sense today’s ecological trend stands in the course of Heidegger’s anticipation. As already remarked, we have lost recollection and thinking at a lower level and there are “intrinsic dangers” of today’s ecological trend. This means that there are internal fallacies in the horizon of current ecological movements and these fallacies will cause some internal dangers inside the movements (policies, economy, and our daily life). These fallacies and dangers are “inside” the ecological movement but they cannot reach to the essence of the movement itself, therefore they are “at a lower level”. Now we can point out four fallacies.

The first fallacy is that the standardization of CO₂ as measurable and tradable unit hides the other environmental problems. Environmental pollution that is not measurable and not tradable still exists in the world, but this is not taken up openly in our daily life. The second fallacy follows: due to the standardization of CO₂ we have lost a sense of crisis for environment. Partial regional pollution or heavy radioactive pollution usually causes irreversible and non-recoverable destruction, and then we often have a sense of crisis and sometimes a strong sense of guilt. However, due to the standardization of CO₂ all emissions can be traded with regard to quantity. The emission in a nation can be traded with another one and today’s emission can be compensated for by the future’s technological development. Such tradability releases us from the sense of crisis and guilt. Naturally such release connects with stable economic promotion. The sense of crisis or guilt about technology itself will causes a mood of cutting down, but the Optimism for technology causes the purchase of new products, especially “more ecological products”, without anxiety and guilt. Promotion of economy and standardization of CO₂-emission are not

two parallel movements, but they are connected with each other.

The third fallacy is that a critical reconsideration of such facts of standardization cannot be allowed inside the ecological movement. Criticism of the movement itself is seen as nothing but a hindrance, and current ecological movements are already economical. Today we cannot deny the actual economical growth or economical plans and projects, and this prevalence of the economy suppresses critical (or philosophical) thinking.

In addition, the fourth fallacy is that ecological care became systematic in general and therefore we lose our daily care about ecology. Our technological system calculates the macroscopic and statistical amount of emission, and on this scale our daily care is almost negligible. We expect the national technological system to solve the environmental problems and we lose a connection with the problems.

These fallacies cause corresponding dangers inside the current ecological-political movements. When we want to demonstrate the dangers, we need only to image the situation that a new serious problem happens unexpectedly and CO₂ loses its position as standard. Then our ecological policy or system suddenly becomes valueless and we are obliged to reconsider it thoroughly. Our plan or products for ecological efficiency will also become useless. This imaginary situation is unfortunately already realized by the earthquake. Nuclear power plants are the hidden basis of all the current ecological movements and when they stop, all systems, all plans and all lifestyles are shaken. Actually, in Japan the unification of the power forms into electric power was recommended in each home for ecology, but now the unification has become an Achilles' heel of power saving. Moreover, the regional radioactive pollution has risen in reality. Radioactivity has become a new criterion for our life and it is announced everyday on TV news. Who imagined the emergence of such a situation? Recently, radioactivity is less often mentioned by TV news, but electric power capacity in Kanto area has become the new criterion of our life.

In addition, our previous lifestyle supported by electrical power and a large-scale technological system is already the established standard of life and therefore today's power insufficiency and the mood of power saving are regarded by us as an emergency. We are obliged to use these systems, because when we stop using them the high-cost systematic instruments become worse than waste. We won't restudy our lifestyle to reduce our economic level permanently. We are already robbed of the daily sense of care by today's large-scale systematic eco-movements.

Furthermore, we want to point out an argument and anticipation. Today CO₂ is almost the only criterion of ecological care or ecological-economical policies, because of the belief that CO₂-emission by humanity causes the drastic climate change, heating of the earth. But today the interesting argument has arisen that such climate change is just a natural-cyclic change and that CO₂-emission is not a main element of this climate change. Today there is a possibility that the CO₂-problem is only a demagogic issue or a campaign by some scientists. We cannot examine this problem in detail, but if we assume that the claim is true, we will lose any reason or will to buy new "ecological" products, moreover, we will

hardly believe any new arguments on environmental problems. This is a crisis for the economy, because the environmental problem is a big economic opportunity. Therefore, when we want to promote economic growth again, we need a new campaign, promotion and advertisement of a new crisis, new criteria and new products. Such a campaign will have more and more showiness and many scientists and academies will help to promote it; they will suppress any critical arguments against the boom. To promote and sustain the economic boom, scientists and even philosophers will deliberately hide the truth! I anticipate such a terrible situation in the future.

Such suspicions contribute to the reconsideration of the current ecological-political movements and to suspending from the doubtful trends. However, these fallacies and dangers are in general in the horizon of current ecological movement and therefore we can correct or, at least, be ready for such fallacies and dangers comparatively easily.

These fallacies and dangers are typical of today's ecological-political movements, not of modern technology itself. Now we turn to the "fundamental" danger of technology itself. This danger appears as the lack of danger.

3. The fundamental dangers of technology revealed by the earthquake

The town and nuclear power plant destroyed by the earthquake will recover little by little and probably our daily life will come back to normal. I remember that even in Tokyo the extreme panic settled down at most a week after the earthquake. The destruction of the nuclear power plant is a technological problem and is expected to be remedied by technology, even if it is a difficult task. We said that partial regional pollutions cannot be measured by a numerical value and cannot be removed by money, but today we see that the radioactive pollution level is measured numerically and the workers operate inside the plant in the calculated limits of healthy risk; moreover, the areas and businesses in the risky region around the plant will be compensated by the budget. Furthermore, nuclear policies go on unchanged in many nations, except for Japan and Germany, for disastrous earthquakes and tsunami do not happen everywhere in the world and, in addition, we can study from this accident how to create safer nuclear control systems. Our technological level rises. I think that Japan and Germany will probably go back to the nuclear trend sooner or later, unless we find a new energy source. Everything seems to be recovering. There is no risk which cannot be measured by technology or by money. It seems that the modern social, technological and economical system can remedy all the dangers. It seems that there is no danger in modern society.

Heidegger also mentioned this point. "The bare action cannot change the state of the world" (GA7, 97), because an action internal to the technology cannot spin out from there, and moreover "the

enormous harm which extends over the earth, cannot cause the change directly” (ibid.), because it will be experienced as suffering, something passive, which is an object for action; therefore it will be experienced in the same horizon of technological action. This remark can be aptly applied to our present situation. The earthquake and nuclear accidents were dealt with technologically, in the horizon of technology. In a sense, even the disastrous earthquake couldn’t damage technology itself.

Now we can put the question, if we cannot escape from the horizon of technology, do we have any occasion to doubt the horizon itself? As alternative to modern technology Heidegger often offered the “Geviert”(the fourfold mutually connective structure of the world as earth and sky, divinities and mortals). Here we won’t discuss its details. He is often accused today of proposing an alternative to technology that is not realistic or of escaping into nostalgia. However, his sense of danger about this modern society prompts us to doubt and reconsider the technological horizon itself. We will show the “fundamental” danger, which is the danger “of” the technological horizon itself, not something “inside” it.

Heidegger made an impressive confession about the way modern society is determined by the essence of modern technology as Ge-stell (exploiting and levying everything one after another).

“Everything functions, and these functions exploit one after another for still wider functions, and the technology roots up humanity from the earth and makes us rootless, this is exactly what is uncanny”(Spiegel Interview, 1966).

It seems rare for us to have sympathy with such uncanniness and the interviewer didn’t understand it, either. We usually think positively that everything is functioning better, quicker and more efficiently. However, the earthquake in Japan has damaged this common sense and now we can feel this uncanniness in our own way. Here we will trace only one of the aspects. We think of the workers inside the nuclear plants, who work to recover the electrical system for our social system and our daily life. Aren’t they the material for the system? In this levying system, humanity is also handled as a material and resource. Before the earthquake we citizens forgot the fact or unconsciously accepted it or we had some guilt. However, when we accept the fact consciously and advance the technological plans and projects more determinedly than ever, then what happens? When we have no unease in regarding humanity as a resource for something else? Isn’t it uncanny? Heidegger felt this uncanniness of modern technology, when he saw a photograph of the earth from the moon (cf. Spiegel Interview). That was a remarkable event, because at the moment he realized visually that even the earth itself has become an object and material of our technological plans exploited by the Ge-stell. The materialization of humanity and the materialization of the earth are both results of the Ge-stell.

In the lecture “The Question of Technology” Heidegger mentioned two dangers of the essence of technology as Ge-stell. First, in Ge-stell we take ourselves as just what to be exploited and levied.

Second, the domination of the Ge-stell hides all other possibilities of behavior (cf. GA7, 27f.). Today we can hear these concepts more than the past, and these dangers now appear as uncanniness. Now we are obliged to decide, whether to follow the rail of technology without thinking or more recklessly, or to pause and think again.

Conclusion

Today we discussed the essence of technology and the essence of current eco- movements with the help of Heidegger, and we pointed out the twofold danger, intrinsic one and fundamental one.

In the present day we have gotten used to imagining the global environmental problems as technological. Therefore ecological problems occur in the horizon of technology and are to be solved in the same horizon. Today's ecological problems are totally technological. Inside the technological horizon philosophers have little power to the actual ecological-technological problems. However, philosophy has the ability to put the horizon itself in question, ability to reconsider the essence of the problem itself and the hidden horizon of the actual movements. Today we try to imagine anew the world and the ecological-technological problems. Today's ecological-technological problems are totally technologically calculated problems and inside the framework everything is calculated as amount of the resource or chemical material, moreover, we humanity is also totally calculated. Is it a genuine form of the world and humanity? When these problems are completely solved, then what will our world and ourselves look like? Aren't they uncanny?

GA: Martin Heidegger Gesamtausgabe, Frankfurt am Main: Vittorio Klostermann.

GA7: *Vorträge und Aufsätze*, 1976.

A Philosophical Analysis of "Eco"
-under the guidance of Hanna Arendt's *Human Condition*

UMEDA Kota (Sophia University, Japan)

kouta@zf7.so-net.ne.jp

Abstract

Nowadays, we Japanese people are seriously confronted with the unsettled ecological subject. That is to say "How do we continue our lives on the earth?" As for ecologists it had already been crucial in 1950s and yet it remains unsolved in spite of their efforts. It is difficult to have a clear view of the comprehensive thought for the ecological subject, as it forms in multiple layers; it contains political, ethical, economical problems and so on. We therefore need to ask a following question in order to lay a comprehensive philosophical foundation for the ecological subject; whom do ecologists call "we"? What does it mean if they consider "human-beings" to be the plane biological concepts? This is a matter of the definition of "human-beings" behind the ecological subject; it dates back to the origin of ecological studies from 1880s, as a holism of biological science can be seen in the works of Ernst Heckel (1834-1919). Anna Bramwell said that ecological thoughts had been newly compounded of the biological root (biological science of ecology) and the economical root (energy economics) since 1970s; still, it does not mean that they presented any constructive ideas for the philosophical definition of human-beings, rather they mainly as "alternative" plotted to refuse the traditional definitions of Western culture.¹ Now we try to describe the hidden source of ecological definition of human-beings from 1880s, tracing the footprints of ecology that appears in the word they adopted; "eco". The word "eco" is used as an abbreviation of "ecology" in Japanese, and it's tied up with the Japanese virtue to save resources economically. It is improbable that such a superficial understanding can reach to the original meanings of "eco". As for E. Heckel (suggested the word "oekologie" in 1866), "eco" has come from ancient Greek, *oikos*. Under his influence younger ecologists has adopted "eco", with the image of household, inside which living things live as their instinct demands. They have not paid attention to consider why we should treat "human-beings" as the object of biological science, though *oikos* meant one side of human-beings in ancient Greek. On this point we can rely on the guidance of Hanna Arendt. It was Arendt who found the borderline between the private realm (*oikos*) and political realm (*polis*) in ancient Greece². The former is the concept for the biological life process, the realm of "needs" to be hidden. The

¹ Bramwell, A. *Ecology in 20th century* (London, 1989), pp. 246.

² Arendt, H. *Human Condition* (Chicago, 1958).

latter is, being no longer bound to the necessities of life, the realm of the appearance in front of the others in the political fellowship. As the time goes by, however, the borderline has declined and the social realm has arisen. "The social" in modern age has forced each person to act "as a member of one enormous family" (*HC*, p. 38). It was thus kind of "family" which ecologists has called "we". I suggest that it is important to take notice to the qualitative difference between the idea of the global ecological system and the image of the household of ancient Greece.

Analysis on influence of ecological factors on China's primary schools' and secondary schools' layout restructuring in minority areas

WANG Shizhong (South Central University for Nationality, China)

fresh6415@163.com

Abstract

Since 1990s, with strong promotion from Chinese government at all levels and support of all social circles, the rural area in China basically realized "One Village One School" which contribute a lot to eliminating illiteracy among young adults and widespreading of compulsory education. Rural education and rural culture merge deeply with each other. look back into Chinese education history, China has created a miracle, education changed a lot, thousands of years, education had been monopolized by nobleman. In recent, resident in rural town accept education and now China basically realized "One Village One School". China's rural education was summed up by UNESCO as "Chinese model ", an unprecedented change in rural social structure and associated with the impact on rural education shocked the world, even our own are unexpected. . Most of the minority group in china settle in rural region or mountain area where have got inconvenient traffic. Except from the way of life is difficult in ethnic minority areas regions , those unfavorable natural environment include: snowfield, mountain area, grassland, Gobi, desert also have an negative effect on education scale and school layout and because short of treasury, the schools are short of study resources. Over the past days, with the development of social, the minority groups have formed their own languages, custom, value, psychological characteristics, art, literature, sports and unique disposition. Rural primary schools and secondary schools are scattered, besides this, poor school conditions, schools' and classes' size are generally small, low level of teachers, poor teaching quality, all these are difficult to meet the need of peasants' and their children's demand for qualify study resources, Government's ability to supply

high-quality study resources is limited currently ,so they hope that according to restructuring the layout of rural schools, put limited study resources together to optimize the allocation of study resources to avoid inefficient use of resources this common problem. Therefore, in the central and western rural areas, local governments began to actively adjusting the layout of rural schools, merge those small, low quality and poor efficient schools, the school hopes to expand their scale in order to put limited resources together. At the same time, with “government-led, top-down, fully involved” policy, the adjustment of layout of urban and rural basic education schools step into the crucial stage. "High Schools side with the urban, secondary side with the cities or towns, primary side with township, educational organization side with administrative villages. " Where China's urban and rural basic educational schools' layout adjustment go? First, fundamentally change the unbalanced expansion of urban and rural education to achieve balanced development of urban and rural education. Second, children from rural area and city enjoy the same quality education resources to achieve educational equity. Third, put large number of rural children who would be border in urban school which should be responsible for raising and teaching. Solve "left-behind children" problem from the source. Fourth, merging small, poor village schools and teaching organization and put them together in cities and towns so that there are no substitute teachers. In this view, it appears to be a win-win act.

Key Words: layout adjustments, ecological factors, primary schools and secondary schools, minority areas, China

Ecological Systemic Process and the Ways of Human Thinking and Acting

WANG Tianen (College of Social Sciences, Shanghai University, China)

tianen@shu.edu.cn

Abstract

The way of human thinking is usually the internalization of the way of the world around us exists, which takes place in the process that we understand the outside world, and evaluate the relationship between it and us. We have been not only understanding but also, in some extent, changing the world around us. And the way of human thinking will externalize as their way of human acting in the process of changing the world around us and the relationship between it and us. The ways of human acting, therefore, determinates the nature of human social practice and the understanding and changing, in a large part, of the world around us, thereby, determinates the way of the world around us exists in our mind. The way of the world around us exists in our mind is very multiple. What takes a main part in determining our way of thinking and acting is our view of the world and value. In this sense, the way of the world around us exists in human mind, the way of human thinking and the way of human acting appear an interactive triangle structure. the most important things in this interaction, as for the ecological problem, is the understanding of the way of the world exists and the elevating based on interest of the relationship between the ecological systemic process and us. Ecological systemic process, as a part of the way that the world around us exists, determinates, in a large part, the way of human thinking and acting. The most important problem is to made people, by understanding and by law, take the ecological systemic process as the main part of the world around us which determinate our way of thinking and acting.

The Second Enlightenment, Ecological Civilization, and Postmodern Green Lifestyle

WANG Zhihe (Center for Process Studies, USA)

claremontwang@yahoo.com

Abstract

The achievements of China's modernization are remarkable, such as the fast GDP growth. However, the price is extremely high. It includes environmental problems, an increasing gap between the rich and the poor, and the loss of faith among its people. Who is responsible for this predicament? This paper argues that the first Enlightenment characteristic of possessive individualism and the imperialist attitude toward nature is responsible for some of China's problems in modernization. Therefore, we need a Second Enlightenment which is characteristic of organic Communitarianism and ecological awareness. Such an Enlightenment can help overcoming the limitations of the first Enlightenment and assist China in a process that moves beyond modernity toward an ecological civilization which calls for not only the transformation of the way of thinking and the model of development, but also the transformation of modern lifestyle, because the modern lifestyle built on the modern western worldview is unhealthy and unsustainable, which will to great extent hinder the construction of ecological civilization. From a constructive postmodern perspective, this paper first intends to propose the limitations of the first enlightenment, the main ideas of the second enlightenment, accordingly point out the limitations of a modern lifestyle, then to propose a constructive postmodern lifestyle aiming at human's well rounded and free development, which is based on the harmonious interaction between humanity and nature. This is a green lifestyle which encourages people to pursue a poetic being and creative being rather than consuming machines. I argue that such a postmodern green lifestyle not only can benefit human's free and full development, but also is a necessary condition for creating an ecological civilization. It also should be an important component of ecological civilization.

I. What is the First enlightenment?

By the First Enlightenment, I refer to: 1) the historical intellectual movement in Europe in the seventeenth and eighteen centuries that advocated reason and individual freedom and 2) the May 4th

movement in 1919 in China which advocated democracy and science. In China we called them Mr. Democracy and Mr. Science. At that time people in China believed that Science could solve every problem and that it could even provide answers to the meaning of life. Although there is a gap in time between the Chinese version of the first Enlightenment and the European version, there is also an intrinsic connection between the two not only historically, but also spiritually. Both involve an unfettered devotion – indeed a worship – of science and reason. For this reason I speak of both as a First Enlightenment.

There is little doubt that the First Enlightenment in both Europe and China played a revolutionary role in liberating people from Federalist tyranny and ignorance. Some fruits of the Enlightenment included the notions of liberty, democratic participation, and the dignity of the individual. These fruits should be highly valued and preserved. Given China's circumstance, in which a feudalist ideology is still very influential, it is especially important to promote these values.

However, it would be irresponsible if we did not point out the limitations of the First Enlightenment since postmodern thinkers in the West already have pointed out the social and ecological costs. The Enlightenment played a central role in the justification for modernization. A worship of economic growth in modernization can be conceived as a manifestation of Enlightenment's emphasis on modern Man who only seeks his own good and is 'indifferent to the success or failure of other individuals.' Let us consider these limitations more closely.

II. What are the limitations of the First Enlightenment?

We find five shortcomings in the First Enlightenment, all of which are closely related.

1) An imperialistic attitude toward nature. Starting from an anthropocentric stance, this disrespectful attitude treated nature as an object to be manipulated, dominated, and exploited. Both nature and women are seen by the Enlightenment culture as 'irrational, uncertain, hard to control, fuzzy.' Many now realize that, in order to liberate women from oppression, people must also liberate nature, at least insofar as the two have been symbolically linked in the Western imagination.

2) A nihilistic attitude toward tradition and the past. The First Enlightenment believed that in order to be fulfilled humans must sever their relations with tradition. In Europe, the past was treated as the Dark Ages. In China tradition was treated as trash which should be totally and completely abandoned. Down with Confucianism was the most famous slogan of that time. Chinese abandoned excellent

spiritual resources in our tradition such as respect for the heaven and awe of the Dao and 'harmony with difference.' We are now struggling to reclaim these traditions. Lacking any faith or sense of the divine, people easily worship the secular. That explains why scientism and worship of money are so popular today in China as well as in the West.

3) The Worship of science. First Enlightenment thinkers considered science to be the only correct and valid way to know the universe. All other ways of knowing the universe—such as religious, artistic, intuitional, and emotional—were viewed as unscientific and therefore to be suppressed or demolished. According to Li Yusheng, during the May 4th Chinese Enlightenment, scientists in China deeply believed that truth was on their side and that the progress of China totally relied on them. Most scientists held an arrogant attitude of mental and moral superiority toward their adversaries. Despite the major contribution of science to human civilization, its worship makes people, whether in China or in the West, neglect its limits. Enlightenment thinkers worshiped Newtonian physics characterized by mechanism and reductionism. From such an outlook the 'disenchanted' world was viewed as a colorless machine.

4) The Worship of Reason. First Enlightenment thinkers also believed that reason, especially 'pure reason,' devoid of emotion, sensate knowledge, social constructions, and noncognitive awareness, was the driver of progress and could build a new civilization. Reason not only failed to improve the human condition, but also failed to solve the oppression of women and ethnic groups. When abstract reason operates without cultural and spiritual norms, it lacks values and a moral dimension. It becomes a kind of instrumental reason that oppresses anything irrational and loses its capacity for far-reaching vision. On the other hand, for the Greeks, reason included emotion and value and a more comprehensive way of understanding.

Another shortcoming of a 'reason-only' approach to life is its tendency toward compartmentalization. Reason takes on various forms such as social reason, political reason, economic reason; each of them dominates one part of human life. This type of reasoning became a defining feature of modern industrial society.

The third shortcoming of modern reason is its individualism, which assumes that 'rational self-interest' is the fundamental motive for human activities. According to this view, which has had an inordinate influence in Western neo-classical economic thinking, rational people only care about maximization of their own interest ignoring the consequence of their actions for others.

5) A one-dimensional understanding of freedom. 'Freedom' was a ubiquitous slogan of the Enlightenment, which encouraged people to fight against the oppression of feudal tyranny. However, the concept of freedom that was promoted had its limits. Freedom was understood primarily as a possession of the isolated individual, and not as a way of being connected to community. It was limited to freedom of speech, freedom of thought, and (in John Locke's thought) freedom to own property.

III. What is the Second Enlightenment?

The limitations of the First Enlightenment led to destructive consequences making it necessary to move beyond modernization towards postmodernization. Rick Smyre called for new approaches to learning/education, economic development, leadership, governance, and even more complex ways of thinking. The Second Enlightenment can be called postmodern since it transcends but includes the greatest achievements of the First or modern Enlightenment.

What are the defining features of the second Enlightenment?

1) Beyond Anthropocentrism to Ecological Awareness. Given the fact that anthropocentrism is responsible for the ecological crises faced today, the Second Enlightenment tends to reject the anthropocentrism and its manifestation: an imperialistic attitude to nature. Unlike the First Enlightenment, which treated nature as an object of exploitation, the ecological awareness promoted in the Second Enlightenment regards nature as a 'subject.' It challenges people to realize that we are a part of an unfolding process, inherently linked with the stars, the winds, the rocks, the soil, the plants, and the animals. Ecological awareness emphasizes that it is nature that protects us. Nature is not only the provides our food and clothing, nurtures our body, but also nurtures our mind. Therefore, we should not only protect her but also love her, respect her and be in awe of her.

2) Beyond Western-centeredness to Complementary Awareness. Modernization is often identified with the West. Some Chinese Enlightenment thinkers like Hu Shi and Chen Xujing, declare that only Western culture, especially Western science and democracy, can save China. They propose that China should completely adopt Western ways, including its political, economical, and cultural systems. Few people in China today accept this theory literally, but it is still very influential, making it difficult to promote postmodernization. For example, *Crying for Yellow River*, a very popular TV program in China, praised Blue civilization (Western civilization) and denigrated Yellow civilization (Eastern Civilization).

In contrast, the Second Enlightenment promotes a complementary awareness between Western and Eastern civilizations. At the heart of complementary awareness, as Jay McDaniel beautifully points

out, is the assumption that there is more wisdom in all the traditions taken together than in any of them considered alone, and that people of different traditions have much to learn from each other. Valuable concepts in the Chinese tradition such as harmony with difference, benevolence, and ecological consciousness can be revalued and revived to help address the illness of modernization. At the same time, a revised science, democracy, and liberty will benefit humankind. Science becomes the servant of human beings. A sustainable or green democracy takes into account the common good, for ourselves and for future generations, but also the rights of all sentient beings.

3) From homogenization to diversity By homogenization thinking I refer to modernity's preference for unity over plurality which holds a negative attitude toward diversity. The destruction of indigenous cultures by globalization reflects homogenization thinking, which is an act of violence against the 'other.' The Second Enlightenment respects and appreciates diversity including ethnic, racial, sexual, cultural and religious difference. For Alfred North Whitehead, one of the founders of constructive postmodern philosophy, it is diversity and plurality that provide the condition for higher development.

4) From a one-dimensional understanding of freedom to a multi-dimensional understanding. The Second Enlightenment reveals freedom's complexity and richness, especially in its social dimension. Foucault's theory of power undermines the notion of absolute freedom because freedom itself is an effect of power. Power produces the possibilities of action, and the conditions for the exercise of freedom, he says.

The First Enlightenment emphasizes freedom of thought, the press and religious opinion. For The Second Enlightenment freedom of action and practical purpose are more important. It emphasizes the social dimension of freedom and reveals the intrinsic relation between freedom and responsibility. For Emmanuel Levinas, responsibility to others pre-exists freedom and there is no freedom that pre-exists the responsibility to others. Freedom is not to be free from others but to be dedicated to serve others. Individual and community values are recognized as being interdependent. We liberate ourselves first, and then we can pay respect to others. In turn, we realize our individual freedom only when we have respect others.

5) From Pure Reason to Aesthetic wisdom We need fresh wisdom in order to cope with the emerging issues of our time. The Second Enlightenment calls for aesthetic wisdom—integrative thinking based on the concept of organic interrelatedness, which aims at harmonizing truth, good, and beauty. Artistic intuition, religious experience, sensitivity, feeling, values, and beauty complement scientific rationality and cognitive reason. It is the wisdom of Dao, whose essence lies in

synthesizing and harmonizing seeming opposites. Such an aesthetic wisdom is to some extent a combination of Western and Eastern Wisdom. Pure reason or instrumental reason are alien concepts to Chinese culture because reason is always intrinsically related to Dao or value. It values the life of all living beings.

Postmodern aesthetic wisdom is organic, respectful of nature, respectful of diversity, free yet responsible, scientific yet spiritual, humane and ecological. This kind of wisdom is needed by China and the world today if we are to move beyond the shallowness of consumerism into a more meaningful way of living. The Second Enlightenment can build upon the First while moving beyond its more destructive aspects. A major shift is necessary to actualize the Second Enlightenment. Nevertheless, as Jordan S. Gruber rightly points out, “it may be the most worthwhile undertaking imaginable.”

The Second Enlightenment calls for an Ecological civilization

Due to its emphasis on ecological consciousness, the Second Enlightenment calls for an Ecological civilization. Ecological civilization is a new developmental stage of human civilization. It is a reflection on and a transcendence of modern industrial civilization. In this sense, ecological civilization is a postmodern civilization.

Proposing ecological civilization aiming at harmonious development of human and nature by the Chinese government at the 17th National Congress of the Communist Party of China, whose goal is to basically form “an energy- and resource-efficient and environment-friendly structure of industries, pattern of growth and mode of consumption,”¹ can be regarded as a significant contribution China makes to the postmodern movement in the world.

Differing from the modern environmental movement, which is still anthropocentric although its great efforts are deeply appreciated, a postmodern ecological civilization is built on the harmony between humans and nature and aims at “the common good” of humans and nature.² In addition, differing from the modern environmental movement which often treats the environmental issue as a technological, economic, or political issue, postmodern ecological civilization treats environmental issues as a complex and comprehensive issue.

Creating an ecological civilization would help fundamentally solve the environmental issue.

¹ [Hu Jintao's report at 17th Party Congress](http://www.china.com.cn/17da/2007-10/24/content_9119449_4.htm)

http://www.china.com.cn/17da/2007-10/24/content_9119449_4.htm

² Herman E. Daly and John B. Cobb, Jr. *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future*. Beacon Press, 1994.

However, honestly speaking, it is not an easy job to create an ecological civilization because it is an unprecedented, enormous, and systematic project that calls for not only the transformation of the way of thinking and the model of development, but also the transformation of the modern lifestyle. Because the modern lifestyle built on the modern western worldview is unhealthy and unsustainable, which will to a great extent hinder the construction of ecological civilization. The economic crisis happening in the world today is to some extent the crisis of the American lifestyle based on consumerism that aims at material needs of the body and sensual happiness thru consumption. That kind of lifestyle is a leading cause of the modern ecological crisis rather than a solution to the problem. The next question is : What are the limitations of the modern lifestyle? I will discuss them in order.

IV.The Limitations of the Modern lifestyle

We are told that the way of life in China has changed dramatically with the fast growth of GDP. The case is true if we view this change from China's point of view. But to western's eyes, China is repeating the mistakes the modern westerners made.

In some respects, China is "more modern" than the West. Take pollution as an example, 70% of rivers and lakes in China have been polluted. The drinking water in half of Chinese cities failed to meet the standard.

At the same time, the whole world notices that "China's hunger for luxury goods grows". It is reported that China's consumption demand for luxury shows 20% annual growth. China emerged second in a global luxury market, after Japan, with young premium customers prepared to spend US\$26.4 billion by 2016, compared to US\$18 billion by their older counterparts. By 2015, China's consumption of luxury goods will rise from 12 percent to 29 percent by an estimated US\$80 billion a year.³ Don't misunderstand that only rich people in China buy these luxury goods. Deeply influenced by consumerism driven lifestyle, many common Chinese young people are also enthusiastic buyers of luxury goods. Faced with the question why she spent 12,000 yuan (US\$1,446) on a famous-brand handbag when her average monthly salary was 3,000 yuan (US\$361.45), Pan Zhimin, a new, 24-year-old employee of a consulting company, says the answer was simple. "It was a sign of the lifestyle I desire."⁴

So it is time to reflect on the modern lifestyle.

Whitehead's process philosophy that regards the universe as an organic whole, and thinks of the

³ "China Luxury Summit" <http://www.chinaluxurysummit.com/>

⁴ http://service.china.org.cn/link/wcm/Show_Text?info_id=128850&p_qry=SARS

world “as deeply interwoven—as an ever-renewing relational process”.⁵ From a constructive postmodern perspective built on Whitehead’s philosophy, anthropocentrism, consumerism, and excessive individualism are the main drawbacks of modern lifestyle.

Anthropocentrism.

One of the worst aspects of the modern lifestyle has been its neglect of nature and its disrespectful attitude toward nature. This attitude treated nature as an object to be conquered, manipulated, dominated, and exploited by humankind.⁶ Francis Bacon, one of the leading thinkers of the Enlightenment, spoke of the need for nature to be “commanded.”⁷ In the words of Adorno and Horkheimer, the authors of *Dialectic of Enlightenment*, “What men want to learn from nature is how to use it in order wholly to dominate it and other men.”⁸ Nature was treated as a slave under the imperialistic attitude. Shaped by the idea that humans are not part of nature, the West developed in ways that reduced economic development to development for humans, without remembering that human economies are always nested within the larger context of the earth itself. One poet in the West, Wendell Berry, calls the earth the great economy. In the West, says Berry, we have too often neglected the great economy. China faces this problem, too. Newsweek tells us that China not only has the fastest growing economy in the world, but also sixteen of the most polluted cities on earth.

Excessive Individualism

Closely related to anthropocentrism, excessive individualism is the second weakness of modern lifestyle. Excessive individualism is the principle that the individual shall have priority over community and others. It assumes that ‘rational self-interest’ is the fundamental motive for human activities. According to this view, which has had an inordinate influence in Western neo-classical economic thinking, rational people only care about maximization of their own interest, ignoring the consequences of their actions for others.

It is worthy of note that historically individualism played a very positive role in liberating individuals from the tyranny of oppressive traditions and authoritarian power structures. But like many good things, when taken to extremes it becomes destructive. When individualism became excessive

⁵ C. Robert Mesle, *Process-Relational Philosophy-An Introduction to Alfred North Whitehead*. Templeton Foundation Press, 2008, p.10.

⁶ Zhihe Wang, “The Second Enlightenment in China.” *Kosmos* 3, 2007.

⁷ Francis Bacon, *Novum Organum*, Aphorism 28, 1620.

⁸ Max Horkheimer and Theodor W. Adorno, *Dialectic of enlightenment*. Translated by John Cumming. New York: Herder and Herder, 1972, 4.

individualism, it destroys the possibility of the shared beliefs and values that make true friendship possible. As Tocqueville pointed out, individualism at first pollutes only the source of the public virtues; but, in the long term, it attacks and destroys all the others and finally shrivels into egoism. For Tocqueville, individualism was an evil leading to the degradation of the social and political order. He feared that the excessive pursuit of personal independence would undermine democratic participation in the governance of society.

Accordingly, the concept of freedom that was promoted by individualism had its limits. Freedom was understood by individualists primarily as a possession of the isolated individual, and not as a way of being connected to community. It was limited to freedom of speech, freedom of thought, and (in John Locke's thought) freedom to own property. It neglects personal responsibility.

Consumerism

Closely related to individualism, consumerism has been the third main drawback of the modern lifestyle. Consumerism equates life's meaning with the possession of material goods and the pursuit of wealth. The philosophy of consumerism tells people that they are fulfilled or made whole by purchasing more and more consumer goods each year without ever having to say "enough." It teaches them to measure their own worth by how attractive they are by consumer-driven standards, by how much money they have, and by how much status they have in terms of the goods they own. It tells them that they are consumers first and citizens second, such that their private good is more important than the public good. It asserts that high paying jobs are more important than their families, and that paid work is the only work worth doing. It says that life is a race toward material success, in which there must be winners and losers. Consumerism has led many people to find more value in life in material things than, for example, in friendship and family and community. Being materially successful becomes more important than being a good parent, neighbor, and friend. People are more interested in new clothes than old friends. The point is, when life is reduced to things, a sense of emptiness will come.⁹

In order to create an ecological civilization, it is imperative to move beyond the shallowness of anthropocentrism, excessive individualism, and consumerism into a more meaningful way of living. We call it "the postmodern green lifestyle" which will truly safeguard people's free and full development.

V. What is Postmodern Green lifestyle?

A postmodern green lifestyle is to some extent a combination of Western and Eastern Wisdom. It

⁹ Jay McDaniel, "Mei's Invitation." *Crosscurrents* 4, 2008.

also transcends but includes the greatest achievements of the modern lifestyle. It is a healthy lifestyle aiming at human's all-around and free development (Marx), which is based on the harmonious interaction between humanity and nature. It encourages people to pursue poetic and creative beings rather than consuming machines. In order to overcome modern individualism, which believes the principle that individual freedom has priority over community's freedom, postmodern thinkers place emphasis on the freedom of community, and freedom of action and practical purpose, while highly valuing individual freedom. They put emphasis on the social dimension of freedom and reveal the intrinsic relation between freedom and responsibility. For Emmanuel Levinas, responsibility to others pre-exists freedom, and there is no freedom that pre-exists the responsibility to others. Freedom is not to be free from others but to be dedicated to serve others. Individual and community values are recognized as being interdependent. In modernist thought we liberate ourselves first, and then we can pay respect to others. But in constructive postmodernist thought we realize our individual freedom only when we have respect for others.

It is apparent that such a freedom with responsibility is more solid and profound than the freedom of modern individualism.

Poetic Beings

Modern society has produced a great many "rational persons" who lack empathy and sympathy although they receive very rational education. Like coming out of the same mould, they are interested in trivial things and incapable of dealing with big questions.¹⁰ It is apparent that such a personality can not take the responsibility to create an ecological civilization. A postmodern ecological civilization calls for a poetic being.

Poetic being here refers to the poetic dwelling what Holderlin and Heidegger promoted. But what Heidegger did not develop is how to be a poetic being.

To the eyes of constructive postmodern thinkers, it is obvious that copying others' lifestyles and catching up with the Jones is not a poetic being. Poetic beings are those who have a deep feeling that we are small but included in a larger whole called Nature, and that we can gain guidance for our lives by being attuned to nature. Therefore they have respect for the earth and other forms of life. They are full of curiosity, imagination, and sympathy. They have a sense of the sacred, a sense of the

¹⁰ H.G.Schenk, *The Mind of the European Romantics*. New York: Frederick Ungar Publishing, 1996, p. 7.

spirituality found in harmony between people and harmony with nature. They regard nature as a 'subject and are fully aware that we human beings are a part of an unfolding process, inherently linked with the stars, the winds, the rocks, the soil, the plants, and the animals. They have a clear idea that it is nature that protects us. Nature not only provides our food and clothing, and nurtures our body, but also nurtures our mind. Therefore, we should not only protect her but also love her, respect her and be in awe of her. Therefore, poet beings not only enjoy and appreciate the beauty of nature, but also add beauty to the world. Although poetic beings live in a harmonious relationship with nature and social community, they make every effort they can to live out their own lives, your beauty.

A Creative Being

Closely related to a poetic being, a constructive postmodern green lifestyle appreciates and calls for a Creative being which sustains a poetic being because a poetic being relies on unique creativity.

For postmodern thinkers the universe is creative. It means that the universe unfolds moment-by-moment in a way that is not entirely reducible to influences from the past. At any given moment, a human being is prompted not only by impulses from the past, but also by possibilities from the future, which the human being can actualize in the moment itself. To David Griffin, as part of universe, we human beings are "essentially creative beings."¹¹ That is, to live is "to be creative."¹² That explains the reason why Whitehead felt sick of closed mindedness and the "decadent habit of mind" in his times. For Whitehead, "The most un-Greek thing that we can do, is to copy the Greeks."¹³ Because Greeks were not copyists. They were adventurous, "eager for novelty."¹⁴

Another leading postmodern thinker, Michel Foucault, also favors creativity and novelty. He used to feel confused that people treat a table or even a tree as an object of art, but not our life. He asked, "But couldn't everyone's life become a work of art? Why should the lamp or the house be an art object, but not our life?"¹⁵ To Foucault, the biggest pleasure of life lies in creation. His own life was full of adventure and pursuit of novelty. He shed light on how to lead a creative life, and how to be a creative being.

To be a creative being is to create a new and harmonious relationship with nature. To be a

¹¹ David Griffin, *Spirituality and Society*. Albany: State University of New York Press, 1988, p. 149.

¹² Charles Hartshorne, *Whitehead's Philosophy*. Lincoln: University of Nebraska Press, 1967, p.132.

¹³ Whitehead, *The Adventures of Ideas*. New York: The Macmillan Company, 1954, 352-53.

¹⁴ *Whitehead Selected Writings*, Hanzhou: Zhejiang Literature and Art Press, 1999, p.313.

¹⁵ Michel Foucault. (1991) [1984]. 'On the genealogy of ethics: An overview of work in progress'. In Paul Rabinow, (ed.), *The Foucault Reader*. Harmondsworth, Middlesex: Penguin, p. 350.

creative being is to create a healthier relationship with others, with community and society in order to enrich each other. To be a creative being is to keep transforming yourself toward free and full development.

As human beings, we feel inwardly beckoned not simply to live, but also to live well, that is, to live in ways that are healthy and compassionate, and that are constructively creative rather than destructively creative. There is more to us than the will-to-power. There is also, still more deeply, the will-to-love-and-be-loved. A creative being is responsive to this inner impulse within each of us.

From a constructive postmodern perspective, being a creative being means to make a difference. Therefore a creative being highly values and appreciates diversity. For Alfred North Whitehead, one of the founders of constructive postmodern philosophy, it is diversity and plurality that provide the condition for higher development.

VI. Is Another Way of Living possible

Although such a postmodern green life style is imperative for an ecological civilization, it will be a long shot to be accepted by the majority.

Skeptics would undoubtedly object to such a lifestyle.

One of their reasons is that creating ecological civilization is the government's job. We common individuals can do nothing.

Yes, the Chinese government will play an instrumental role in creating an ecological civilization by transforming the development model and mode of production. But we individuals also can make significant contributions to creating such a civilization by changing our lifestyles. In some sense, we can say ecological civilization is impossible without individuals' active participation. According to Mohandas Gandhi, "The first step to Swaraj (self-rule) lies in the individual." For Gandhi, every individual had to take steps towards self-rule in their lives; then India would naturally move towards self-rule as a nation. That means, you must be the change you wish to see in the world.

In order to change the world, we should change ourselves. Many individuals changing their lifestyle can make a big difference toward creating an ecological civilization. To echo contemporary author John Adams' sentiments, "If we continue to believe as we have always believed, we will continue to act as we have always acted. If we continue to act as we have always acted, we will continue to get what we have always gotten."¹⁶

¹⁶ John Adams, *Thinking Today as if Tomorrow Mattered: The Rise of Sustainable Consciousness*. Earthheart

Another popular objection to ecological civilization should be considered here. They question: Why China, why us? It took a hundred years for China to reach today's situation. When we are about to be rich by launching modernization, you ask us to lead a green life which means to limit our desires. It is not fair because you Westerns already have led a rich life. It is time for us to lead such a rich life "even if it is unsustainable."¹⁷

While this point of view has a great many followers in China today with the craze of narrow nationalism, it is not only theoretically problematic, but morally irresponsible.

Firstly, the objectors to a green lifestyle still take for granted that the modernization and the modern lifestyle based on modern western worldview is the only way to lead a happy life. It is apparent that they have ignored the criticism of modernization and modern lifestyle from postmodern thinkers in the past 3 decades. Obesity in the US is an arresting example. Due to their modern lifestyle, 60% American adults are overweighted, one fourth have obesity. Today obesity has become one of the most serious healthy problems in USA.

Secondly, the objectors have showed their lack of responsibility. They are not only irresponsible for nature and others, but also for themselves. Because when we totally abandon the traditional lifestyle such as the diet of coarse food grains and embraced the modern lifestyle, we actually walked down a miserable way.

Promoting a postmodern green lifestyle does not mean calling people back to a pre-modern society; also it does not mean everything traditional is right and everything modern is wrong.

What we try to tell people is "don't be short sighted copyists." The Westernized Modern lifestyle has already caused so many serious problems, why do we still want to copy it? Why do we still want to repeat the mistakes the modern Westerners made?

If following the US, everyone in China owns a car, Beijing, the capital of China will turn into the world's worst traffic jam. It is not wrong to pursue wealth, but wealth would be valueless if it comes at the cost of our personal health or the vitality of the planet. Sam Walton, founder of Wal-Mart, reportedly came to this realization near the time of his death when he said he would trade all his wealth for a period of good health. Selfish, short-sighted conduct is immoral. Actions have consequences and a price must be paid for reckless self-indulgence. While Sam Walton's epiphany came too late to be of benefit to him, as David

Enterprises, 2000, p. 93.

¹⁷Xiaoyuan Jiang, "China's Dilemma to Choose a Green Lifestyle." *Green Leaf* 2, 2009.

Schwerin points out, “others can profit from his reversal of priorities.”¹⁸

The third disadvantage of the objectors lies in negatively understanding postmodern green lifestyle. Namely, they interpret the essence of green lifestyle as “limiting people’s desires.”

As a matter of fact, what postmodern green lifestyle wants to limit is the unlimited desires of consumption, and the infinite desires of possession. Because these desires are anti human. They turn human beings into consuming machines and existences of possession.

It is worthy of note that limiting people’s unlimited desires is just one aspect of postmodern green lifestyle. Another aspect, a more positive and important aspect of postmodern green lifestyle, lies in encouraging people out of the box of material desires in order to develop themselves freely and fully.

As there is not only one way to Rome, the ways to feel happy are many. The material needs of our body are not the whole of our lives. As human beings, we also have spiritual needs of the mind. We feel enjoyable when we are in nature, our aesthetic sensibility can be developed by caring about and appreciating nature;¹⁹ Likewise, we can enrich our lives and feel happy by helping others.

The Last objection is that the postmodern green lifestyle is “unrealistic”. Given the fact that people today are too “realistic,” who are either dominated by consumerism, or treat uncreative life as normal state, postmodern green lifestyle with idealistic color is a healthy alternative to the dominant modern lifestyle. Creating an ecological civilization calls for such a lifestyle.

Although there will be hardship on the way toward a green lifestyle, we have to plough our way to lead such a lifestyle. An ecological civilization will be hopeless without transforming our modern lifestyle.

As a matter of fact, more and more people in China today have realized the necessity and importance of such a green lifestyle. They have already been on their way toward such a green lifestyle. The following movements such as the “Green Biking Movement” promoted by Institute for Postmodern Development of China, LOHO Movement promoted by Sheri Liao and her Global Village of Beijing, “simple wedding”, “new frugalism.” Etc, reflect such a sincere effort to lead a postmodern poetic and creative green lifestyle. They are the people who are on their way toward free and full human development.

¹⁸ David A. Schwerin, “Turbulence to Tranquility: Building an Economy to Believe In.” *Culture Communication*. 36, 2008.

¹⁹ Meijun Fan, *Contemporary Interpretation of Traditional Chinese Aesthetics*. Beijing: Peking University Press, 2006, p.92.

Maybe the group is small, and their voice is small as well. However, they have proved the simple truth that there is not only one way to Rome. Another way of living is possible.

To my eyes, they are the hope for ecological civilization. Their effort reminds me of the saying of Lu Xun, one of the greatest writers of the 20th Century in China: “Hope is like a path in the countryside: originally there was no path - - yet, as people are walking all the time in the same spot, a way appears.”²⁰

²⁰ Lu Xun, “Hometown.” *New Youth* Vol.9, No.1 (May, 1921).

The evolution of "otherness" and the presentation of "inclusion" under the view of Western intellectual history

WANG Zhihong (Hefei University of Technology, China)

wangzhihong0311@163.com

Abstract:

From the macro perspective of Western intellectual history there is always a metaphor of "otherness" in the way of searching for rationality. Under the strong voice of the traditional Subjectivity thinking, "otherness" always be shadowed by the Identity self and then become a dependent condition of Dominant self. However, it is "Descartes- Kant's time dilemma" that provide the key to understand the charm of the Modern reflection rational "otherness" and Postmodern ecological "inclusion". And that also formed three rational patterns which reflects the characteristics of mode of thinking in different times. They are "scientific rationality" of subject thinking , the "practical reason" in modern mind respect and ethics, and post-modern organic inclusive "harmonious rational".

The construction of the three reflection rationality has opened up a path of its own intellectual history's evolution and turning. The first path is the process from Descartes's universality of rational self-construction, to Hume and Kant's question to certainty and boundaries, and then to Hegel's identical Subject thinking which reaches the peak. The Second path is the process from Husserl's phenomenology encounter the "strange experience" in the Transcendental consciousness theory, which turned to "life world" vision, to Heidegger's questioning of bounded rationality and disclosure, and then to Lieweisina "Otherness" Being and Time heterogeneity obtain. The third path is the process from the nihilism which opened by Nietzsche to Bergson irrational time "stretching", then to Whitehead's "inclusive" interpretation of organic process of nature and life .

It is the three paths that show us the evolution of “otherness” and the presentation of “inclusion” in Western intellectual history. And it also provides the constructive deological Paradigm to link the modernity and post-modernity.

The 85-year research on Whitehead's *Philosophy of Organism* in China

WEN Hengfu & YANG Li (Harbin Normal University, China)

yanglihsd@sina.com

wenhengfu@126.com

Abstract

The researches on Whitehead's *Philosophy of Organism* have started since 1920' in China. During 85 years, we can recognize four periods of our research on Whitehead's theory. From 1920' to 1940', it was the beginning as well as an important time that Chinese scholars did their study of *Philosophy of Organism*; Then, the next 30 years, from 1950' to 1980', was a "depressing" period for this study; However, there was an increasing attention to Whitehead's study since 1990'. Especially, the research and application of *Philosophy of Organism* were most conducted in Education area. In the latest 10 years, the research is getting more on the comparison between Whitehead's *Philosophy of Organism* and Chinese and other philosophies. However, the scholars in science area have taken less participation in the research of *Philosophy of Organism*, which has influenced on the understanding of Whitehead's theory. As we concern, it is a great need to expand his theory to larger areas which definitely will benefit for both scientific discovery and the development of human civilization.

Key words: Whitehead; Philosophy of Organism; research; 85 years

Philosophy of Organism is a school of philosophy which has an increasing influence since human enters into 21 century. It appeared in 1920s with its pioneer being Alfred North Whitehead (1861-1947). In his book *Process and Reality*, his thought of organism was fully displayed and the book is regarded as "one of the most complicated and originative philosophy books" ^{[1](P177)}. The article is based on 'The Academic Literature Index' and 'CNKI' literature index, trying to sort some of the studies on Whitehead's Philosophy in China.

I. Whitehead and his Philosophy of Organism

Among philosophers of 20th century, "Whitehead is a unique one, not only because he is a both

^[1] John B. Cobb, Jr., David R. Griffin. *Process Theology* [M]. Beijing: Central Compilation and Translation Press, 1999.

mathematician and logician, but a scientific philosophy. He does not belong to both British-American analyzed philosophy school and European Continent Phenomenology school. He is independent of all philosophy but adopting Oriental philosophical thoughts. These make his thoughts deep and broad. He becomes a philosophical master^{[2](序)}. Because he is keen on Mathematics, Philosophy and Physics, he can surpass ideas of low generality needed by human civilization and goes for ideas of high generality^{[3](前言)} ----Philosophy of Organism. According to Hawking, “In 19th and 20th century, science to philosopher became too technical and mathematical. Philosophers lessened their domains of questions. Even Wittgenstein said that ‘what left for philosophy to do is language analyses’. This is the degradation of philosophical tradition from Aristotle to Kant^{[4](P233)}”. Whitehead belongs to one of the “outside experts”. Facing this degradation, Whitehead said, “Speculative Philosophy is the endeavour to frame a coherent, logical, necessary system of general ideal in terms of which every element of our experience can be interpreted.”^{[5](P3)}. This perhaps is his pursuit of philosophy of organism ! His philosophy exerts a great influence on John Dewey,^{[6](P363)} Susanne K. Langer^{[1](P179)}, Dampier.W.C.^{[7](序)}, Richard Rorty^[8], Ervin Laszlo^{[9](前言)} and Ilya Prigogine^{[10](P135)}. In Clatement of the state of California USA, ‘Center for Process Studies’ has been established (1973) .Now it is changed into “Institute for Postmodern Development of China, USA”. There are many branches of the institute in China, Australia, Britain, Canada, Japan and South Korea. Under the efforts of some Chinese scholars, such as Zhai Junong, Zhang Dongsun, Fang Dongmei, Xie Fuya, Xie Youwei, Cheng Shiquan, Mu Zongsan, Tang Yijie, Wang Zhihe, Yang Fubin, Zhou Bangxian, Qu Yuehou, Huo Guihuan, Ou Yangkang, philosophy of organism is increasingly understood. Under the push by Ding Liqun and Li Xiaojuan, ‘Seeking Truth’ set a special column of Studies on Thoughts of Process” in 2007. Under the efforts of Wang Zhihe, the Chinese Process Society was established in 2010. All these set a big platform for studying this subject matter. After the development of Charles Hartshorne, John B Cobb, David R.Griffin and Jay McDaniel, the influence of philosophy of organism is increasing. Now it has become a heated subject in world philosophy and being applied into all walks of life.

^[2] Chen Kuide. Whitehead [M]. Taipei: Tunghai University Book Company Publishing, 1994.

^[3] A. N. Whitehead. Adventures of Ideas [M]. New York : The Free Press, 1961.

^[4] Stephen Hawking. A Brief History of Time (Illustrated Edition) [M]. Changsha: Hunan Science and Technology Press, 2001.

^[5] A. N. Whitehead. Process and Reality [M]. New York : The Free Press, 1978.

^[6] John Dewey. Problems of Men [M]. Shanghai: Shanghai People's Publishing House, 2006.

^[7] W. C. Dampier. A History of Science and Its Relations With Philosophy and Religion[M]. Beijing: Commercial Press, 2009.

^[8] Huang Yong. Rorty's Anthology (An Introduction) [EB/OL].

(2009-03-08). <http://philosophyol.com/pol/?viewnews-10148>.

^[9] Ervin • Laszlo. Introduction to Systems Philosophy [M]. Beijing: Commercial Press, 1998.

^[10] Prigogine, Stengers. Order out of Chaos [M]. Shanghai: Shanghai Translation Publishing House, 1987.

^[11] Si Guang. Pandect on Whitehead Philosophy [J]. Democratic Tide, Periods 20 and 21, Volume 7, 1957; Periods 1, 2 and 5, Volume 8, 1958.

II. The Overview of Whitehead's Organic Philosophy Literature Statistics

The authors input key words "Whitehead" into the "Reading Index" finding that 374 books are matched. They also find 29 books through other channels. Putting together there are 403 books.

Table 1 403 books yearly spread

Year	1920- 1950	1951- 1960	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	Total
number	9	2	9	13	71	119	180	403
percent	2. 2%	0. 5%	2. 2%	3. 2%	17. 6%	29. 5%	44. 8%	1

Among them there are 56 dictionaries; 67 *translated collections and selected readings* as well as 24 translated books. There are two translated books in the early 1930s. There are 11 books published or republished in recent 10 years. So far Whitehead's major works have Chinese translation. Among nine books from 1920 to 1950, there are two translated books, which are *Science and the Modern World* (Wang Guangxu, 1935) ; and *Science and Life* (Fu Tongxian, 1937) , which are perhaps the earliest translated books of Whitehead. The authors of the other seven books are : Zhai Junong (1927) , Xie Fuya, Zhang Dongsun (1929, 1930) , Gao Mingkai (1935) , Huang Chanhua (1937) and Xie Youwei (1947) . Among them, Xie Youwei's *Religious Philosophy* (1927) perhaps is the earliest research of Whitehead. There are 31 Whitehead's philosophy research publications, including republished and translated ones. Thirteen books are translated in recent ten years. Xie Youwei's *Whitehead's Academy* (1953) may be the first research book of Whitehead's philosophy. Whitehead philosophy is also concerned by Tai Wan scholars. Xie Youwei, Zhu Jianmin, Yang Shiyi, Zhao Yiwei, Tang Liquan, Fu Peirong, Yu Yixian, Wu Weifu, Wu Rujun and Huang Guoyan have their books published. In mainland China, only Chen Kuide, Wang Zhihe and Huang Ming have publications. There five translated research books by Price, Tian ZhongYU, Philip Rose, David R.Griffin, C.Robert Mesle.

III. Statistics Overview of Research Papers on Whitehead's Philosophy of Organism

Input "Whitehead" into CNKI, we get 236 research papers focus on this and eighty-five papers through different channels, altogether 321 papers. Among them, there are thirty-five Master and PhD research papers.

Table 4 321research papers scattering at different period of time

Period of time	1920- 1950	1951- 1960	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	总计
Total	15	6	4	3	12	26	255	321

percent	4. 7%	1. 9%	1. 3%	0. 9%	3. 7%	8. 1%	79. 4%	1
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In recent ten years, research papers on Whitehead philosophy are increasing. The earliest one may be written by Zhai Junog. The earliest Master and PhD research papers may be written by Yang Shiyi (1968) and Chen Kuide (1985). Before 1950s, 15 research papers were written by Ju Nong, Zhou Xinming, Gao Mingkai, Zhang Dainian, Zhu Jinzhi, Huang Zitong, Mu Zongsan, Zhu Baochang, Zhang Yinlin, Xie Youwei and Ya Fu.

IV. The Main Study Content of Whitehead’s Philosophy of Organism in China

1. Introduction and comments of philosophy of organism

Literatures of introduction and comments of Whitehead are the largest quantity. They are 32.3 percent. There are four research orientations. The first is system research works which have the main authors as Xie Youwei, Yang Shiyi, Zhao Yiwei, Chen Kuide, Tang Liquan, Yu Yixian, Wu Rujun. The second is Western philosophy or History of Western philosophy. Before 1950s, Zhai Junong, Zhang Dongsun, Gao Mingkai, Huang Chanhua, Xie Youwei and Fu Tongxian introduced Whitehead’s philosophy. Tang Junyi (1961), Zhang Zhendong (1978), Liu Bi (1979), Du Renzhi (1980), Quan Zenggu (1985), Hou Hongxun and Yao Jiehou (1987), Li Wei (1989), Wang Shouchang (1990), Tu Jiliang (2000), Qian Guanghua (2001) and Wang Zhihe (2006) also introduced Whitehead’s philosophy in their books. The third is lectures. He Lin gave a long speech in 1948 in Peking University on “Whitehead”. The speech was put in *the Collection of He Lin*. Mu Zongsan gave two speeches in Taiwan in 1954 on the topic of “General Meaning on Whitehead’s Philosophy” and “Keys to Whitehead’s philosophy”. They were later put into *Collections of Humanistic Lectures*; The fourth is journal articles. Before 1950s, Zhai Junong, Zhou Xinming, Gao Kaiming, Zhu Jinzhi, Zhu Baochang, Xie Youwei and Mu Zongsan made comments on Whitehead’s philosophy. Later, Lao Siguang (1957、1958)^[11], Wang Shouchang (1981) and Luo Dawen (1985) made introductions on Whitehead. After 1990s, there are more literatures on this. The authors are Yang Fubin, Wang Zhihe, Huo Guiyuan and Qu Yuehou.

2. Research on the application of Whitehead’s philosophy thoughts into Education

Zhu Xiaoman^[12], Pei Dina are the leading figures in this aspect. Their thoughts influenced and changed Chinese education. 22 percent of these literatures belong to this kind, including two kinds of research. One is Whitehead’s educational thoughts; the other is the educational research under the philosophy of organism. Zhang Dainian and Xie Youwei once concerned Whitehead’s educational

^[12] Zhu Xiaoman. A Perspective of Contemporary Curriculum Reform in China from the Viewpoint of Process Philosophy [J]. Culture Communication, 2007, (9-10).

^[13] Ju Nong. Professor Whitehead [J]. Morning Supplement, 1926, (61).

thoughts before Whitehead died. Zhang Dainian's Bachelor thesis was "On Whitehead's Educational Philosophy" (1933), later being put into *Zhang Dainian's Collections*. Xie Youwei published *Whitehead on Education* (1943) and commented on *Thesis Collections on Aims of Education* (1947). Wu Zhihong's *Comments on Whitehead's Educational Thoughts* (1985) perhaps was the earliest Master thesis on Whitehead's educational thoughts, being put into *Comments on Foreign Educationists*. Zhao Yiwei (1988) and Yu Yixian make deep and systematic studies on Whitehead. Lv Weiyuan (1989), Zhao Xiangli (1992), Teng Dachun, Dai Benbo (1993), Liu Chuande (1993), Wu Shiyong (1997), Yuan Ruie (1998), Li Bo (1999), Wu Minghai (2008), Shu Zhiding (2009) and Fu Dianying also made some comments on Whitehead's educational thoughts in their writings. Qu Yehou, Wang Zhihe, Zhang Guangbin, Huang Ming and Zhang Xianbin made some explanations on Whitehead's educational thoughts. Whitehead's university educational thoughts, aims, process, procedures and contents are the focus of people. Cheng Changchun, Cai Baolai, Li Fang, Zhang Xiaoyu, Liang Qing, Xu Fenghua and Yang Li expounded on this. There is no doubt that philosophy and education have close relationships. People are curious about education under the philosophy of organism. It's worth exploring. Zhu Xiaoman, Wang Zhihe, Fan Meijun, Lu Jianjun, Qu Yuehou, Pei Dina, Zhao Heling, Wang Xia, Sang Guoyuan, Zhang Xianglan and Yang Li have made some explorations on this. Lu Jianjun's *A Perspective Research on the Shift in Educational Thought* may be the earliest PhD thesis on philosophy of organism.

3. Special Topics on the Theories of Philosophy of Organism

These special topics mainly discussed on the nature, methodology, criticism on traditional metaphysics, ontology, theory of value, theory of category, cosmology, science and religion. 14.4 percentage of literature belongs to this category. (Research on philosophy of organism also belongs to this, no repetitive statistics here.) On the first half of 20th century, Zhu Jinzhi, Zhu Baochang, Gai Kaiming, Huang Canhua, Zhang Zhendong regard Whitehead's philosophy as "Theories of Reality (实在论)". But Zhai Junong is exceptional. He said, "I gradually think that I cannot conclude his doctrine with any out-of-date words. He pioneered a new way for philosophy. I think one hundred year later, philosophy world will look at him just like we look at Kant."^[13] Xie Youwei said, "Whitehead had no teachers to learn. His philosophy came from his many years of meditation."^[14] With the coming of post-modernism, people find that Whitehead's philosophy is very postmodern, non-destructive but constructive. So it is called constructive postmodern philosophy—a new school. John Jr. Kob, Wang Zhihe, Jay McDaniel have analyzed this. Dewey thought that "Whitehead's methodology is pioneered and permanent contribution to the present and future philosophy."^{[6](P363)}. Chen Kuide, Yu Wujin have

^[14] Xie Youwei. *Whitehead's Life and Thought* [J]. *Thoughts and Times*, 1948, (53).

^[15] Tang Junyi. *Introduction to Philosophy (II)* [M]. Beijing: People's Publishing House, 1961.

^[16] Xiong Shili. *Shili's Words* [M]. Beijing: Zhonghua Book Company, 1996.

also researched on this. Its characteristics are synthesized and analyzes, coherent and matched. The methodology is appropriate, not going to extreme; natural, coherent and harmonious, and going beyond the existing opinions. Philosophy of organism is based on the criticism of substance philosophy. Zhou Xueming, Xie Youwei, Zhang Dongsun, Zhu Baochang, He Lin, Yu Yixian and Yuan Yonghao expound the ideas of “the idea of simple location”, “natural dichotomy” “the fallacy of concrete mistakes” which Whitehead opposed. “In Whitehead’s philosophy, value is the central concept. The purpose of it is to establish the concept that value is inside the nature.”^{[15](P642)} Whitehead’s cosmology is centered by theory of value, which made us feel different from other theory of value. Tang Junyi, Chen Kuide, Zhao Yiwei, Zhu Baowei, Wu Rujun, Wang Lizhi and Dong Lihe have made deep research on Whitehead’s theories of value. “The existing substance is the only reason”. This is ontological principle and the foundation of Whitehead’s philosophy. Chen Kuide, Huang Ming, Huang Minghua, Li Haifeng, Zheng Minxi and Zhang Jianqiang have made research on this. The whole metaphysics philosophy is the application of his category theories, Tan Xintian, Zhao Yiwei and Yuan Yonghao have made deep research on this theory. Mu Zongsan, Xie Youwei, Tang Junyi, Yu Yixian have made explanations on Whitehead’s ways of prehensions and perceptions. Wu Rujun has made deep exploration on the theory of prehensions. Zhao Yiwei and Zhu Jianmin have researched Whitehead’s cultural philosophy. Huang Ming, Yu Yixian, Mao Jianru, Cai Zhong, Wu Yanfei and Hou Zhizhong have made research on Whitehead’s religion, relationship between science and religion. Dan Zhaoming, Wang Chengbing and Zhang Xiaoyu have explanations on Whitehead’s organism formation. Huang Zitong studied Whitehead’s view of space; Cheng Shiquan studied deeply on Whitehead’s “time”, “event” theories.

4. Implication and application of Philosophy of Organism

13. 5% of literature belongs to this category. Whitehead’s doctrine is not only criticism for traditional metaphysics, but it is to construct a new kind of metaphysics; it tries to negotiate the difference between two cultures; it aims to pursue a balance between logic understanding and aesthetic understanding, science and humanism, facts and value; and to build a spiritual building for human being. Thus, Xie Youwei, Chen Kuide, Wang Zhihe, Yu Yixia, Dan Zhaoming, Huang Ming and Zhu Baowei have made research on this. Pei Yong’s “Why Choosing China” tell us to work hard for the starting of postmodernism in China’s modernism construction, overcoming the weakness of modernism. Lai Minchao made deep studies on organism’s theology dialogue and ecological ideas. He suggests Chinese theology society accept the its spirit. Tang Yixian’s Process Theodicy was based on Whitehead’s organism of philosophy. Gao Fengqiang’s “Constrictive postmodern psychology” worth concerning. “the importance of Adventure for the promotion and preservation of civilization”^{[3](前言)}. Han Zhen’s “The

^[17] Wang Zhihe, Wu Lanli. *There Is Not Merely One Road to Mount Hua since Ancient Times* [J]. Huazhong University of Science and Technology (Social Science Edition), 2008, (5).

^[18] Wang Zhihe. *A Study on Post-modern Philosophical Movement (Enlarged)* [M]. Beijing: Peking University Press, 2007.

Value of Adventures—My Understanding of Whitehead” explained clearly about this. The research made by Wu Lanli, Jay McDaniel, Fu Hongquan and Gu Yulan made us realized that philosophy of organism is very important for global economy and harmonious society and human civilization. Huang Ming, Dong Hui, Wang Xinju, Wang Oian and Ding Liqun have tailored the research. Concerning present is the character of philosophy of organism. To the ecology crisis, and the aggravation of environment, Li Shiyan proclaimed that ecology civilization is the pursuit of postmodernists.

5. Comparative Studies between Philosophy of Organism and Chinese Philosophy

11. 6% percent literature belong to this category. There are five comparative aspects. First is the comparativeness with Chinese philosophy. Dong Fangmei is the first person who compared Whitehead’s philosophy with Chinese philosophy. He thought that philosophy of organism overlaps with The Book of Changes and The Huayan Religion. Following the suit, Cheng Shiquan, Shen Qingsong, Yang Shiyi, Tang Liqun, Cheng Zhongying, Yu Yixian, Zheng Jinchuan, Jiang Nianfeng, Li Huanming and Tao Xiuaao have made comparativeness between The Book of Changes and Whitehead’s philosophy. Cheng Zhongying has studied similarity and difference between Whitehead’s philosophy and Dao De Jing as well as Confucius in Song and Ming Dynasty. “Philosophy and Chinese Tao Theories” is Dan Zhaoming’s one chapter of PhD thesis. According to Zhang Tingguo and Dan Zhaoming, In the “process”, integrated facts and value is the overlap with Chinese Tao in building cosmology theories. Wu Kunru wrote “Taoism and Whitehead”. Tao Xiuaao studied Zhu Xi and Whitehead. Zhang Nini and Tao Qing studied the similarities among Confucius, Zhuang Zi and Whitehead. Second is the comparison between philosophy of organism and Chinese modern philosophy. Three years after the *Process and Reality* was published, Xiong Shili’s *New Mere-consciousness Theory* appeared. Zhang Dongsun and Xie Youwei who are familiar with Whitehead’s philosophy soon found that Whitehead and Xiong Shili have something in common. They wrote letters to him, and he replied, “Whitehead’s philosophy and *New Mere-consciousness Theory* have something in common.....I do not understand *New Mere-consciousness Theory*, how to compare them ?”^{[16](P118)} Predecessors’ research was concerned. Jiang Yunming and Wang Kun wrote respectively, analyzing the similarities between Xiong Shiling and Whitehead in their philosophy theories which are representatives in metaphysics in the 20th century. We believe that the comparison will last. Our predecessors would be happy if they knew this. The third is the impact of philosophy of organism on Chinese philosophy. Wan Xiaoping, Luo Jiachang, Wang Kun, Wang Xingguo and Zhang Xuezhi analyzed the influence of Whitehead on Dong Fangmei, He Lin, Mu Zongsan and Zhang Dainian. The fourth is to examine the similarities between Whitehead and Chinese philosophy from some angle, such as the research of Fan Meijun, Wu Sen and Yang Fubin.

^[19] Zheng Dahua. On Zhang Junmai's Contribution to the Spread of Western Ideas to the East [J]. *Chinese Cultural Studies*, 2009, (2).

6. Comparative Studies between Philosophy of Organism and Marx's Philosophy

These studies focus on the comparative studies between the two kinds of philosophy. There are also comparisons with philosophy of Hegel, Heidegger, Kant and Husserl. There are 3.8 percent literature belonging to this category. Shen Xiangping expounded the similarities between philosophy of organism and scientific development view as well as Marxist philosophy and Chinese traditional philosophy from the process theory, organism theory, whole theory and creation theory. "A new team of Marxist theorists have concerned the big potential value of philosophy of organism and constructive postmodernism."^[17]. Dialogue is negotiating between the two. The dialogue of Yi Junqing, Ren Ping and He Lai between Dr. Kob also shows the effort. Fei Laode, Chen Kuide, Yanshun Li, Guo Peng and Dan Zhaoming expounded the similarities between the two. Tao Xiuaao, Huo Guiyuan and Zhang Jianqiang have studied the similarities between the philosophy of Hegel and Whitehead. Wang Lizhi, Yan Shunli and Shen Liping also analyzed the ideology connection between Whitehead and Kant, Heidegger and Husserl.

7. **Other researches.** There are 2.5 Percent does not belong to the above categories.

V. Research Features of Philosophy of Organism in China

1. From 1920s to 1940s----- the Beginning and Critical Period of Organism Philosophy Research in China

This is the first handshake between Chinese scholars and Whitehead's philosophy. There are three reasons: One is that many "fans of Whitehead" appeared. "In China of 1930s, there were many famous characters such as Dong Fangmei, Cheng Shiquan, Tang Junyi, Zhang Dainian, Xiong Shili, He Lin and Quan Zengxia were keen on Whitehead."^[18](增补本序言 Research has found that Zhang Dongsun, Huang Zitong, Zhang Junmai^[19], Zhang Shenfu, Xie Fuya, Xie Youwei, Zhang Yinlin, Mu Zhongsan, Fu Tongxian, Zhai Junong, Huang Canhua, Gao Mingkai, Wang Guangxi and Zhu Baochang have read Whitehead's works and introduced Whitehead in their writings. Fu Tongxian, and Wang Guangxi also translated Whitehead's works. *Process and Reality* newly published. Zhang Shenfu made simple introduction on it and praised it very much. ^[20](P32). Mu Zhongsan was crazy about Whitehead., "I have read carefully all Whitehead's books."^[21](P10) He also translated *The Principles and The Concept of Nature*. Unfortunately, the translated version was missing. ^[21](P10). As a Whitehead's disciple, Xie Youwei felt regretted that he did not have a work on Whitehead dedicated to academic society. "Such a

^[20] Mou Zhongsan. *Self Narratives at Fifty* [M]. Taipei: EHU Press, 1989.

^[21] Mou Zhongsan. *Lectures on Zhouyi Philosophy* [M]. Shanghai: East China Normal University Press, 2004.

^[22] Xie Youwei. *Academism in Whitehead* [M]. Taipei: The Central Agency of Cultural Relics, 1953.

^[23] Zhu Jianmin. *Whitehead – the Libation of Modern Metaphysics* [M]. Taipei: Yun Chen Culture Industry Stock Co., 1982.

^[24] Gao Mingkai. *Modern Philosophy* [M]. Taipei: Cheng Chung Book Company, 1935.

^[25] Tang Xiaofeng. *Mr. Xie Fuya's Biography* [EB/OL]. <http://www.douban.com/group/topic/14366044/>.

master is not very well-known by Chinese scholars is a pity to both Chinese scholars and Whitehead himself.”^{[22](P1)} He translated *Modes of Thought and The Function of Reason*^{[23](P240)} and published *Academy of Whitehead* (1953). He also made comments on *Modes of Thought and The Aims of Education*. He tried his best to “save” Chinese academic society! Although there were few books on Whitehead’s theories, there are many “Whitehead Societies”^{[24](P355)}. This “heat” was proved by the following things. Xie Fuya who studied in the University of Chicago heard that Harvard University had invited Prof. Whitehead who taught natural science, then he transferred to Harvard.^[25] Zhai Junong came to Harvard from many thousands away specially to learn from Whitehead. He invited Whitehead to China and he accepted. But it is a pity that he did not.^[13] He Lin, Quan Zenggu^{[26](译者后记)}, Shen Youding^{[27](编者的话)} and Gu Yuxiu^[28] were lucky to have chance learning from Whitehead. We may say that Zhai Junong, Dong Fangmei, Xie Fuya, Zhang Dongsun, Xie Youwei, and Mu Zongsan are the first group of people who introduce Whitehead to China. This “heat” means that philosophy of organism come closer to Chinese culture. Perhaps, China in 1930s were in the stage of learning from West. The academic world was very active. Just as Zhang Dongsun said, “In recent years, China are introducing much western thoughts. Namely, the latest theories have been introduced, especially philosophy.”^{[29](P69)} What is more, Whitehead’s philosophy itself is charming. Second is that there are many research products, which left us valuable data. The third is they exert great influence on the development of philosophy of organism in China. Among the influential scholars many have direct or indirect relationship with them. Such as Cheng Shiquan, Tang Junyi, Wu Kunru, Cheng Zhongying and Fu Peirong are the dearest students of Dong Fangmei. Yu Yixian is Cheng Shiquan’s disciple, and Chen Kuide is Quan Zenggu’s disciple. Liu Fangtong’s translated *Modes of Thought* was also influenced by Quan Zenggu. Whitehead’s philosophy was concerned by many scholars, and Quan Zenggu thought “China needs a philosophy of organism”^[30]. Zhang Donghuan also said that “I fully agreed the word philosophy of organism was explained like that by Whitehead”^[30] But “Chinese academic society was attacking Hsuan Hsueh, Whitehead’s thoughts conflicted with this and were not valued by Chinese mainstream.”^[31]

^[26] A. N. Whitehead. *Modes of Thought* [M]. Beijing: Commercial Press, 2004.

^[27] Shen Youding. *Collected Works of Shen Youding* [M]. Beijing: China Social Sciences Publishing House, 2006.

^[28] Huang Yanfu. *A Century Generalist Gu Yuxiu* [N]. *China Civil Aviation Paper*, 1998-04-10.

^[29] Zhang Dongsun. *Essays on New Philosophy* [M]. Shanghai: Shanghai Commercial Press, 1929.

^[30] Zhang Dongsun. *The Philosophy World in the 10 Years* [J]. *Guanghua University, Periods 9-10, Volume 3*, 1935.

^[31] John B. Cobb, Jr.. *Whiteheadian Harmony in Response to the East* [J]. *Social Science*, 2002, (8).

^[32] Institute for Postmodern Development of China, USA (Brochure) [R].

^[33] Kou Dongliang, Zheng Wei. Review of “the International Conference on Value Philosophy and Process Philosophy” [J]. *Philosophical Trends*, 2002, (8).

^[34] Philosophy Institute of Tunghai University. *Chinese Philosophy and Whitehead* [M]. Taipei: Tunghai University Book Company Publishing, 1989.

^[35] Qian Xueshen. *Philosophy • Architecture • Democracy* [J]. *Huazhong Architecture*, 1996, (3).

^[36] Qian Xueshen. *Universities Need Spirit of Innovation* [J]. *Legal Information*, 2009, (11).

^[37] A. N. Whitehead. *The Organisation of Thought Educational and Scientific The Function of Reason* [M].

2. From 1950s to 1920s—"the Depression Period" of Philosophy of Organism

During the 40 years, the average amount of such philosophy books is 2.4, such thesis is 0.6. The only happy publication is Xie Youwei's *Whitehead Academ* (1953). Generally speaking, there are few people studied Whitehead. That's why we call it "depression period". There are five reasons: the first is the philosophy's intricacy; the second is its relationship with politics; the third is the influence of "Cultural Revolution"; the fourth is the philosophy is not mainstream philosophy; the fifth is we did not have such serious ecology and psyche crisis like recent 20 years. Thus make people less concerned with integrity, relevance and process.

3. 1990s—the Increasing Concerns of Philosophy of Organism

Since 1990s, literature on the philosophy studies has been increasing. 74.3 percent of books and 87.5 percent of thesis were published in recent twenty years. The philosophy is increasingly concerned. The reason for this "second handshaking" is that: the first is the crisis facing people needs a kind of holistic thinking. The second is the philosophy's insight and presight. Whitehead warned us earlier that "We mustn't think separately the commercial and the other parts of the society. Commercial world is only one part of the society, the society is what we should study about"^{[3](P9)}. The third is the existing university systems, especially the splitted professional learning make people feel disabled while dealing with very difficult problems. Philosophy of organism thus is the solution for this. The fourth is various academic conference held by some professional scholars. In recent years, "Institute for Postmodern Development of China, USA" and many organizations at home hold 40 more international conference on ecology, philosophy of organism, educational reform and ecological agriculture^[32], especial the 2002 Beijing International Whitehead Conference. Yuan Guiren, Han Zhen, Zhong Binglin, John B Cobb, David R.Griffin, Chen Shiquan, Shen Xuanren, Zhao Dunhua and Ou Yangkang are at the conference. This is a "Big Organism Conference". All this because of the pursuit, hard work and good preparations of Wang Zhihe, Yuan Guiren^[33], Han Zhen, Yuang Fubin and Liu Xiaoting. The fifth is the hard work of Sino-Postmodern Research Institute^[32]. The Reserch institue has its internet (<http://www.postmodernchina.org/cgi/index.htm>). It also provides advance visiting scholarship program, joint PhD program and the station of post-Phd program. They set organism study program to support Chinese scholars on doing the research. They published the constructive postmodern works from the West and organized the newspaper Process Studies in China Since 2006, the institute has been holding five cohort Sino-U.S. Process Phil. Summer Academy.

4. Education--- the most active field of using philosophy of organism

There are 139 literatures. The percentage is 22.4. The figure illustrates the activeness. There are five reasons. One is that Whitehead is an educationist; second is that education and teaching theories are facing many challenges which need to seek wisdom to face these challenges. The third is educational practice call for entirety, relevance and generative thinking ; the fourth is it is guided by some senior researchers. Zhu Xiaoman, Pei Dina and Wang Zhihe have made great contribution on this; the fifth is the influence of some academic meeting.

5. Comparative studies between philosophy of organism and Chinese philosophy are going on.

In recent ten years, such research literatures are increasing. The comparative studies between Whitehead and other philosophy are going on. There are three reasons. The first is Whitehead philosophy has closely relationship with Chinese philosophy. "The philosophy of organism seems to be similar to that of India or China."^{[5](p7)} About this saying, Cheng Shiquan said, "Whether philosophy of organism is similar to Chinese philosophy still needs to be proved."^{[34](序言)} The second is philosophy of organism was developed on the studies of predecessors. The third is deeper studies on the philosophy provides facilities for comparative studies.

6. Widespread use of philosophy of organism

First is many areas are involved. More than twenty "Centers for Process Studies" have been established in Beijing, Shanghai, Wuhan, Xian, Shandong and Hei Longjiang by "Sino-Postmodern Research Institute" It covers many areas. Second is the widespread application. The philosophy has been applied into education, psychology, law, religion, ecology and city development. In recent years, seminars of philosophy of organism keep organizing. All these predict that philosophy of organism will bear "nutritiously organic fruit".

7. Few people from natural science to participate

Many fields are involved in Whitehead's philosophy, such as Mathematics, Physics, Biology and Logic. His philosophy is the "shared fruit" of all these fields. That's why his works are difficult to understand. Research of Whitehead needs mutual efforts from different fields. But still few scholars from natural science do this. This is perhaps because of the separation of science and humanism. Qian Xuesen once said, "We should relate natural science to social science"^[35]. "The creative thoughts are usually ignited from large span of thinking. "By providing general concepts, philosophy makes people

understand those endless unrealized situations in the womb of nature.”. ^{[5](P17)}We should not discount this function of philosophy.

“People are making endless efforts, and will get pay in the end. The pursuits of this effort should not be stop if the endless truth is not got.”^{[5](P14)} This is the attitude towards philosophy of organism, hoping we have more wisdom to improve our life, to keep an eye on our earth. “Living a better life” and making people of this planet living longer and happier is our aim.”

The Ecological Civilization on basis of Marxism Philosophy

WU Libing (Hefei University of Technology, China)

wulibing@sina.com

Abstract

As a theoretic system handles the human-nature relationship overall, philosophy invariably generates profound impacts on both the comprehension and the resolution of human-nature contradictions, which is expressed by different forms of civilization. Industrial civilization represents the dichotomy between man and nature, and the nature world excluding human viewed as the object to conquer is the traditional Western Philosophy idea. The Industrial Civilization has thus caused fierce human-nature conflicts, which, as a result, arouses global ecological crises. Human being encounters the dilemma involving survival and development, which consequently engages the introspection on the issue of human civilization development. Conservative culture definitely becomes a rational choice.

As a more advanced, complicated, as well as progressive form of civilization, conservative culture stands on the basis of the understanding of the human-nature relationship in Marxism. Starting from the exposure of the dependency of nature on both the human-primitive quality and the fundamentality of substance, Marxism demonstrates the internal consistency between human being and nature from the ontology. In the eyeshot of Marx and Engels, the authentic human-nature relationship is an objective one, and two aspects in the relationship are correlated via human being's fundamental practical productive activities. Therefore, human-nature objective relationship is practical relationship essentially. Practice enables the human-nature relationship to be the integration of activeness and passivity. Through creative and practical activities man constantly changes the natural world of its initiative, and attributes the "human-related essence" characteristic to the natural world, as well as

illustrating its elemental power. The relationship between human being and natural ecological environment is the dialectical unity of the restriction of class-in-itself and the initiative of class for-itself.

The coherence of man-nature symbiosis, coexistence and co-prosperity requires man to adapt the direction of human development, and to change the world on the premise of dynamic equilibrium of ecological system. Moreover, man should try to diminish the factors of expansion and antagonism in the civilization, and promotes the harmony among nature, man and society. Harmony is the kernel value of conservative culture.

Tries to Analyze The Possibility of Realizing Ecological Civilization

WU Xueqin (Anhui University, China)

xqwquad@yahoo.com.cn

Abstract: Since the 1970s, the problem of ecological civilization has come out which got the attention of the countries all over the world. From the first world environmental protection and development conference in 1972 to the signature of *KYOTO PROTOCOL* in 1997, environmental protection is becoming more and more difficult. Copenhagen summit (2009-12-19) further proved the difficulty of realizing ecological civilization. So, what is the possibility of realizing ecological civilization? This article will analyze it from the angles of Marxism and constructive postmodernism. The analysis approach of Marxism by analyzing economy thinks that the external diseconomy of market economy is the most important reason for ecological crisis. The method of solving ecological crisis is in the internal market economy. The analysis approach of constructive postmodernism needs demolishing the thinking mode of anthropocentrism in theory and enhancing environmental consciousness, promoting personal protection behavior in practical.

Key words: Ecological Civilization Marxism Sustainable Development

Ethical Value

一、The origin of ecological civilization

As we all know, the development history of human society experienced three stages: agriculture civilization - industrial civilization - ecological civilization .In the middle of 20th century, industrial

civilization brought unprecedented gospel to Western society ,for example, the social material wealth and per capita income increased sharply, modernization level was unprecedented increased,and the society was in prosperous.....meanwhile, it also brought irreversible damages to society. It aggravated human survival environment and made a serious threat to the sustainability of human survival and development in a few decades.

二、 Marxism analysis approach on the the possibility of realizing ecological civilization

In view of marxism, the free market economy ----"the invisible hand" called by classical economists allocated resources reasonably by its unique flexibility which greatly improved economic benefits and realized the fast growth of economy, creating a capitalist economic miracle .It also caused the environmental pollution and ecological crisis. Investigateing its reason, it seems to have something to do with the theoretical basis of economic operational mechanism and practical power.Its theoretical basis is external diseconomy of Market economy. The environmental system considered by ecological civilization which is also the deficiency of economic studies is the external diseconomy of traders. So,it belongs to the market failure. The direct power is the interest motivation of "invisible hand"called by classical economists.

In this way, not only is the theory basis of market economy different from ecological civilization but the ethical value orientation of utilitarianism which pursuing profit maximization is also different from the goal of new ethical value on human with nature and human with human which was taken into account by ecological civilization. In that way, whether people can realize ecological civilization in the mode of market economy, then correct unsustainable behaviours and obtain sustainable development and market economy at last?

I think it can work. Capitalistic market economy as a kind of contract economy which restrain the human irrational greed controls the utility in a rational level. The reason is : the market economy basing

on equivalent exchange is a kind of contract economy which restrict traders' behaviors and ask both sides to follow the rules of market economy. the morality needed by market economy or moral requirement in contract culture is starting on utility, but not pure utilitarianism. It has the value connotation which beyond utility. Second, in the early development of capitalism , even the "economic power" caused by utility principle of market economy was also restricted by "religious blunt force"(religious ethics).

Therefore, the mode of market economic is not the opponent of ecological civilization. Instead, as a kind of contract economy, it can rationally restrict the motivation of utilitarian. It may make moral views without utility, changing external diseconomy of traders, so as to provide possibility of realizing the ethical value goal of sustainable development . Besides, the flexibility and adaptability of market economic makes personal and society use technology to overcome the negative effects and use utility principle of market economy to restrict unsustainable behaviours of obtaining profit, so as to avoid the external "diseconomy" of traders. In fact, the modern market economy, whether capitalist or socialist, has changed the original free stage in different levels. It also changed the control of simply individual utility which is also called "invisible hand" to having a little of plan under the control of "visible hand" and eliminating the unsustainable utilitarian motivation . Then, it can corrected environmental pollution, waste of resources and ecological crisis casued by the external "diseconomy" of market economy,so as to be on the way of ecological civilization.

三、 Constructive postmodernism approach of the possibility of realizing ecological civilization

Human survival crisis caused by simply pursuit of economic growth reflects inherent concept of human which treat the growth of material wealth as social progress. Modern industrial civilization reflected human'pursuit of material wealth completely. It is the inevitable result of people' deep-rooted philosophical ideas and economic behavior patterns which result from the initial position of human toward nature. There was a faith of "human is the measure of all things" in ancient Greek.

Then, *Meditationes de Prima Philosophia* of Descartes in which metaphysical thinking mode about the opposition of subject and object was established made "absolute human oriented theory" be the dominant thinking mode of western philosophy. Modern western economics influenced by this thinking mode treated the basic premise of theory as eternal contradiction on rational economic man who simply pursues benefits maximization and the lack of resources of objective material world. The contradiction which reverses the relationship between human and nature makes the development of social economy be in trouble. The trouble calls for new kind of development mode which makes ecological civilization instead of industrial civilization.

Basing on the standpoint of constructive postmodernism, human society must adjust the use methods of natural resources again and change the usual value orientation of treating nature in order to realize the ecological civilization. Human can not treat nature with their own values and get their own benefits from nature. Then, they should demolish thoughts of metaphysics influenced by traditional anthropocentrism, and develop from opposition between man and nature into harmonious development between man and nature, establishing harmonious and comprehensive development. They should also admit the value of nature and basic characteristic that people obey natural ecological system. we would rather think ecological civilization is a kind of update on natural view and world view of human than ecological civilization has established a comprehensive and sustainable development concept of social economy. It fully guarantees human rights such as the rights of subsistence and development by revealing and maintaining the rights and value of nature. Human survival and development obtain sustainability through the continuation of nature.

On the other hand, observing today's construction of ecological civilization in the perspective of postmodern, we can know, the strategy of realization is radical democratic politics. The main part of realization is People and states of developing countries who are influenced by the ecological damage heavily and Left-wing activists of developed countries.

Philosophical methods and ways in Whitehead and Kant

YAMAURA Yuzo (Sophia University, Japan)

theyamauras@nn.em-net.ne.jp

This is an examination of Alfred North Whitehead's organic process cosmology in relation to Immanuel Kant's critical philosophy on the similar or opposite methods and ways of their philosophy, especially in the formation of human experience. This will give us a clue to understand properly their thoughts. Whitehead's process cosmology is influenced by the critical philosophy of Kant. Therefore, his view comprises generally the essence of traditional European philosophy, while taking somewhat over Kant in its methods of thinking and raising issues. It is suggested that approaching to an understanding of Kant through Whitehead would be to clarify another important aspect of Kant escaped our notice.

1. The philosophy of organism as the inversion of Kantian philosophy

Whitehead describes the difference between his own philosophy and Kantian critique. According to Whitehead, the Critique of Pure Reason describes the process by which subjective data passes into the appearance of an object world. The philosophy of organism seeks to describe how objective data pass into subjective satisfaction. He says, "for Kant, the world emerges from the subject ; for the philosophy of organism, the subject emerges from the world—a 'superject' rather than a 'subject'(P.R.88). Thus for Kant the process whereby there is experience is a process from subjectivity to apparent objectivity. It leads to the notion that the philosophy of organism is the inversion of Kant's doctrine. Since the philosophy of organism explains "the process as proceeding from objectivity to subjectivity, that is to say, from the objectivity whereby the external world is a datum, to the subjectivity, whereby there is one individual experience"(ibid,156). Therefore, for Whitehead the organic philosophy is the "inversion, correction, and culmination of Kant's critic" (W.C.10). That is to say, Whitehead accepts Kantian claim that in every act of experience there are objects for knowledge which can be principally known. But he thinks there is no reason to believe that these objects are actually cognized or cognition is involved in any given experience.

In this connection, Whitehead says that "Kant, the great philosopher who first, fully and explicitly, introduced into philosophy the conception of an act of experience as a constructive functioning, transforming from subjectivity to objectivity, or objectivity into subjectivity"(P.R.156). Indeed, human reason has two-sidedness on logical ground in which it transforms from subjectivity to objectivity, and from objectivity to subjectivity in both ways. Kant's transcendental realm determines the necessary form-but only the form-of all possible experience in which it has the structure of 'subjectivity'. That is to

say, 'the self' is viewed as an ultimate and unconditioned existence, antecedent to experience and creatively generative of it. In the development of the arguments of the deduction, the self is described as coming to consciousness of its permanence through reflection upon the constancy of its synthetic activities. In this way, Kant argues the conditions by which possibility and necessity of knowledge can be realized. In fact, he maintained that human knowledge originates out of two branches, 'sensitivity', through which objects are given to us; and 'understanding', through which objects are 'thought'. Hence Kant's notion of a priori was the decisive answer both to the empty speculations of metaphysics and to Hume's skeptical objection against the empiricist attempts to provide a foundation of science.

We are justified, I think, in saying that Kant was the first in modern times to raise the problem of awareness and of the conditions of its possibility. Indeed, it was Kant who made self-conscious determination the cognitive form of the objective world. Though Descartes was constantly speaking of consciousness, he defines it in merely negative terms. It should be noted that the transcendental exposition of Kant in the possibility of experience presupposes the existing reality of fact. From the point of Kant's view, the ultimate ground of the possibility of consciousness, and therefore, of empirical self-consciousness (*Ich denke*) is the transcendental unity of apperception (1), resulting in knowledge.

Eventually, Kant's transcendental doctrine has the structure of subjectivity. And it takes on the form of the 'I' in the transcendental unity of apperception. He asserts that the categories express the minimum of unity necessary for the apperception. Thus Kant's categories of understanding are universal and intrinsic to the mind. However, Whitehead's categories are not imposed by the mind. Instead, they are immanent to the 'data'-the event or actual occasions-out of which they arise by a process of abstraction. Apperception precedes experience due to a priori condition. Thus the transcendental unity of apperception synthetically unifies the manifold of the given representations into an objective unity, thereby constituting what Kant calls 'experience'. In this way, the form of experience is grounded a priori in the understanding. Experience is possible, however, only in relation to the manifold given by intuition. In short, Kant's contribution to philosophy was that he adopted the subjective principle, and rejected the sensationalist principle (P.R.157). The former is, that the datum in the act of experience can be adequately analyzed purely in terms of universal. The latter primary activity of experience is the bare subjective entertainment of the datum (*ibid*).

There are important differences between Kant's transcendental argument and Whitehead's organic cosmology. In short, Whitehead tried to convert Kant from merely formal conditions of possibility to concrete conditions of actualization. For Whitehead, in contrast to Kant, it is genetic and productive with actual experience, though Kant's attitude is legislative and juridical. Whitehead says, "It is a complete mistake to ask how concrete particular fact can be built up out of universal" (P.R.21).

(1) In A 129, it is argued that as we prescribe a priori rules to which all experience must conform, those rules cannot be derived from experience, but must precede and condition it, and can do so only as originating from ourselves.

2. Organization of thought

For Whitehead, in the existing real world the dynamic activities are conceived before sense-awareness is given to us. Actual entities-also termed actual occasions-are the final real things of which the world is made. There is no going behind actual entities to find anything more real (P.R.18). It resembles more monads (1). Each actual entity is conceived as an act of experience arising out of data. It is a process of 'feeling' the many data, so as to absorb them into the unity of one individual satisfaction. Whitehead argues that an actual entity considered in reference to the publicity of things is a 'superject'; namely it arises from the publicity which it finds, and it adds to the publicity it transmits (P.R.289). In the organic theory, it is not the 'substance' which is permanent, but 'form'. Form suffers changing relations; actual entities perpetually perish' subjectively, but are immortal objectively. In other words, actuality in perishing acquires objectivity, while it loses subjective immediacy (P.R.29). That is to say, subject constitutes itself in and through its experience; and there upon it perishes, entering into the objective immortality of being a datum for other experience of other subjects.

In this way, he identifies entities with processes, which at once become and thereby perish. This teaching means the abolishment of the ontological privileging of human beings over all subjectivities. Hence Whitehead sees subjectivity as embedded in the world. This doctrine seems to be quite fresh and unique in the history of Western philosophy. Here it is important to the metaphysical doctrine of the philosophy of organism that the notion of an actual entity as the unchanging subject of change is completely abandoned. In short, an actual entity is at once the subject experiencing and the superject of its experience (2). This means, for Whitehead the subject is also a superject not a something that emerges from experience, but superadded to it (W.C.12). For Whitehead, the subject is not self-perpetuating, but must continually be renewed. He says, "no subject experiences twice" (P.R.29). In this context, Whitehead claims this denial directly contradicts Kant's' First analogy of Experience (3). In the philosophy of organism it is not substance which is permanent, but form. Kant and Whitehead do not presuppose a subject existing outside of, and prior to, experience, as Descartes does. Kant assumes, in the First Critique, that experience is fundamentally conscious and cognitive. But for Whitehead, the real world where we are living is the real potentiality, which is conditioned by the data provided by the actual world. This datum which is the primary phase in the process constituting an actual entity, is nothing else than the actual world itself in its character of possibility for the process of being felt. Thus behind each occasions of our daily experiences, the process of actualization is functioning. Therefore, Whitehead begins his thought from real experiences of human beings with high capabilities of recognition, when he considers concrete things. It is because that experience or subject aspects of experience are the definite things, namely a clue to get actual entities which are the modes of tangible existence. In this way, potentiality has passed into realization. They are complete and determinate matters of fact, lacking of all indecision.

(1) Whitehead asserts that "each monadic creature is a mode of the process of feeling the world, of housing the world in

one unit of complex feeling, in every determinate. Such a unit is an actual occasion; it is the ultimate creature derivative from the creative process" (P.R.80).

(2) It is termed 'subject-superject', and neither half of this description can for a moment be lost sight of (P.R.29).

(3) First Analogy-As in the second edition: In all changes of appearance substance is permanent; its quantum in nature neither increases nor diminishes.

3. Ontological discussions

The philosophy of organism is closely associated with Spinoza's scheme of thought. But it differs by the abandonment of the subject-predicate forms of thought, so far as concerns the presupposition that this form is a direct embodiment of the ultimate characterization of the fact. The result is that the 'substance-quality' concept is avoided and morphological description is replaced by description of dynamic process. The coherence is the discovery that the process, or 'concrecence', of any one actual entity involves the other actual entities among its component. This new idea is termed 'reformed subjectivist principle' which can explain the obvious solidarity of the world. Namely, new type of relations is to be established as "subject –subject" (P.R.29).

R.Faber claims that Whitehead deconstructs the history of philosophy as either not allowing or not having gone enough in reversing any paradigm of thought which avoids the fundamental creativeness of the universe (1) In all philosophical theories, there is ultimate which is actual in virtue of its accidents. The only thing to be permanent in Whitehead's philosophy is that it is fluent a nexus of events (ibid.). Yet in Whitehead's philosophy, an ultimate notion or metaphysical principle is termed 'creativity'. In monistic philosophies, Spinoza's or absolute idealism, this ultimate is God, who is also equivalently termed 'Absolute'. However, according to him, one side makes process ultimate, the other side makes fact ultimate (P.R.7). An actual entity is a novel entity diverse from any entity in the 'many' which it unifies. The term 'many' presupposes the term 'one', and the term 'one' presupposes the term 'many'. So term 'many' conveys the notion of 'disjunctive diversity'; this notion is an essential element in the concept of 'being'. "the many becomes one and are increased by one" (P.R.21). And the category of 'the ultimate' replaces Aristotle's category of 'primary substance (ibid.). For Whitehead, the ontological principle means that actual entities are the only reason. Hence, he mentions, "The ontological principle can be summarized as; no actual entity, then no reason" (P.R.19).

As regards the question in which how does the new enter into the world? Kant does not explicitly value the new (W.C.72). Instead, he makes such thinkable for the first the criticism shifting the focus of philosophy from question of essence ("what is it?") to question of manner ("how is it possible?") (ibid). Whitehead deplores the way in which Kant shifts the focus of philosophy from ontological question to epistemological ones, first time in the history of philosophy. According to S. Shaviro, Kant's shift of methodology may lead to an evident criticism of his critical philosophy, it should be noted that diversity is always preserved in his transcendental principle. And this will open a place for potentiality (ibid.72).

It is well known that the fundamental characteristic of human reason constitutes a frame of Western philosophy. For example, we usually plan, formulate, and conclude the philosophical consideration depending on the reason. That is why Kant's Critique is required. And also in European traditional thought, it has been considered that the reason (logos) alone constitutes a ground of the reason itself. It means that human reason takes in its ground inside and stands the position of subject with identity as *causa-sui*. It is suggested that this notion leads to all the troubles of philosophy. Although aesthetics which accepts materials of recognition, and reason which considers voluntary in Kantian critical doctrine of teaching, are indispensable components, however they are the different sources of origin. And they have complementary relationship mutually and make it possible to establish a possibility of experience. In fact, general method proper to Kant's transcendental inquiry sets out to 'isolate' the specific faculty of the mind ('I think') in order to find its pure components and its pure employment. In the Critique of Pure Reason, sensibility had first to be 'isolated' from all contribution of understanding as well as from all reference to sensation. The result is a priori forms of our 'sensible intuition' or diversity of the given (i.e., with those components of our knowledge that are neither intellectual nor materially empirical). Kant describes the task of the transcendental logic in analogous methodological terms. Herein we have to isolate the understanding and focus on that part of our thinking activity which has its origin exclusively in the understanding. In this way, diversity is always preserved under what Kant calls 'transcendental unity of apperception'. That means Kant rejects Cartesian ego as substantial entity in the same manner with Hume; but against Hume in insisting that unity must be retained as a form.

Whitehead rejects Kant's overall subjectivist and cognitivist orientation. Instead he claims that "understanding is never a completed static state of mind, but it always bears the character of a process of penetration, incomplete and partial" (M.T.43). Though his contention is how does exact thought apply to the fragmentary, vague continua of experience, unlike Kant what he is seeking a solution asking for is "not a phrase, brilliant, but a solid branch of science" (A.E.158).

(1) Farber, Roland. *Organic or Orgiastic Metaphysics? Reflection on Whitehead's Reception in Contemporary Poststructuralism*, Japan Society for Process Studies, Chuo University, Tokyo. 2009

4. Empiricism or rationalism

As we have seen before, the fundamental attitude of Whitehead's thought is chiefly in a reversal of Kant's transcendental philosophy of rational presuppositions. And yet he begins *Process and Reality* with a reflection on the intention, method, and character of his endeavor to critically locate his metaphysical speculation within the traditional history of philosophy (R.Farber,1). At the beginning of *Process and Reality*, he states that "speculative philosophy is the endeavor to frame a coherent, logical, necessary system of general ideas in terms of which every element of our experience can be interpreted" (P.R.3). By the notion of 'interpretation', it means that "everything of which we are conscious, as enjoyed,

perceived, willed, or thought, shall have the character of a particular instance of general scheme”(ibid.).

It seems to me that Whitehead intended to overcome the traditional distorted thinking in conformity with a kind of enhanced empiricism and rationalism combined. From his viewpoint, the main task of philosophy is to establish a descriptive generalization of experience, in terms of every element of our experience could be interpreted. Accordingly he claims “the main method of philosophy in dealing with its evidence is that of descriptive generalization” (A.I.235). In respect to this, his insistence is that we should endeavor the positive use of the products of modern science in terms of interpretation of human experience. Of course, the method of generalization of experience is a purpose of which empiricism is aiming at. While rationalism is not concerned with a descriptive generalization of experience, but with a priori generalities from which a matter of experience is finally pulled out. So it is not an exaggeration to say, Whitehead’s method of philosophy is more or less located on close to the standpoint of rationalism, nevertheless it is basically based on the prominent empiricism of the modern centuries.

It is an evident fact of experience that our apprehensions of the external world depend absolutely on the occurrences within the human body. Moreover, we are aware of the nature as an interplay of human bodies, colors, sounds, scents, tastes, touches, and other various bodily feelings, displayed in space, in patterns of mutual separation by intervening volumes and of individual shape. Also the whole is a flux, changing with the lapse of time. This systematic totality is disclosed to us as one complex. But the seventeenth theory of dualism cuts straight across it. That is to say, the subjective world of science was confined to mere spatial material with ‘simple location’ (1).Whitehead’s theory is the complete abandonment of the notion that simple location is the primary way in which things are involved in space-time(S.M.W.87).Hence he says, ”everything is everywhere at all times”(ibid.). While the subjective world of philosophy annexed the colors, sounds scents tastes touches bodily feelings as forming the subjective content of the cogitations of the individual mind assigned by Descartes to the cogitations of the observer’s mind. Therefore, the mind seems to be confined to its own private world of cognitions. And this conclusion from Cartesian data was the starting point upon which Hume and Kant developed their respective notions. Obviously, Kant’s view of analytic thinking is entirely dominated by the substance-attribute teaching of the traditional logic.

In this connection, Whitehead criticizes that Kant “conceives his transcendental aesthetic to be the mere description of a subjective process” (P.R.113), which eventually provides the transcendental logic with the more basic task of giving an account of the necessary conditions of all experiences. While Whitehead thinks one can know anything in some of its perspective, but the totality of perspectives involves an infinitude beyond finite knowledge (M.T.42). In this context, I imagine that there could be a crossing between the notion of Whitehead and Kant. It would now seem, therefore, that the initial excess of emphasis on the unity of apperception remained characteristic of Kant’s critical teaching, its power and prerogative were very greatly diminished in the Third Critique. For example, In the final part of it, Kant deals with crucial issues such as the functions played by teleology in the natural sciences,

the role of living organisms within the teleological systems and so on. However, nothing is added to the strictly transcendental inquiry into a priori principle of the faculty of judgment as such. Kant claims the notion that we must view mechanism as the means employed by a cause that acts intentionally, in which mechanical laws nature must be subordinated to the purpose pursued by an intentional cause (K.D.U. §81). Thus he suggests that our judgment construct a system of nature within which all particular purposes are organized and harmoniously unified. In this point, I think, there is an affinity with notion between Kant and Whitehead.

(1) Whitehead tried to apprehend the scheme of nature based on a traditional natural philosophy. In this context, he rejected accepting the classical scientific materialism, with its 'simple location' which is the very foundation of the seventeenth century scheme of nature. Under the concept of 'simple location', a bit of matter can be depicted without any reference of the relations of that bit of matters to other regions of space and to other durations of time (S.M.W.57)

5. Mode of experience

In the above we have seen, Whitehead emphasizes the effective contacts between science and philosophy. The doctrine which he is essentially arguing against is to bifurcate nature into two divisions, namely into the nature apprehended in awareness and the nature that is the cause of nature (C.N.31). According to him, this modern account of nature has been disastrous both to science and philosophy, but mainly to philosophy. Since, it has transformed the grand question of the relation between nature and mind into the petty form of the interaction between human body and mind (ibid.27). Hence Whitehead criticized the concept of matter as the substance whose attributes we perceive. It is well known that Locke met this difficulty by his theory of the primary and the secondary qualities. Namely, there are some attributes of the matter which we do perceive. These are the primary qualities, and there are other things which we perceive such as colors, which are not attributes of matters, but are perceived by us as if they were such attributes. These are the secondary qualities of matters. Whitehead is vigorously protesting this way of thinking of matter which has the historical reason for its introduction to science. Today, we still have the vague view of it at the background of our thought. This discussion by Whitehead is widely extending over to his metaphysical interpretation as a whole.

It should be acknowledged that subject-object relation is the fundamental structural pattern, not only of nature but also of human experience. When we look back the history of Western philosophy, it is evident that this pattern has been accepted as an important doctrine. Whitehead also agrees basically with this presupposition, but not in the sense in which subject-object is identified with knower-known. i.e., the subject is the knower, the object is the known. Thus with this interpretation, the object-subject relation is the known-knower relations (A.I.177). In this regards, Whitehead makes clear distinction with Kant. For Whitehead, all knowledge is a high abstraction and conscious description of objects experienced. Since conscious discrimination is a variable factor only presents in the elaborate example of occasions of experience. According to him, the basis of experience is emotional. In other words, our

emotional and purposive experience is a reflective reaction derived from original perception by the mediation of our bodily sense-organs (A.I.179-180). He claims that the technical phrase 'subject-object' is a bad term for the fundamental situation disclosed in experience (S.M.W.137). Since this is the doctrine with subjects is with private worlds of experience. And also is that the phrase 'subject-object' indicates a fundamental entity underlining the object (ibid.).

Instead, he uses the term 'prehension' for the general way in which the occasion of experience can include, as part of experience or an entity of another type. Prehension reproduces in itself the general characteristics of an actual entity. Furthermore, Prehension involves emotion, purpose, and causation (P.R.19). This term is devoid of suggestion either of consciousness or of representative perception. On the other hand, 'feeling' is termed as positive type of prehension, in which the 'datum' is preserved as part of the final complex object that 'satisfies' the process of self-formation and thereby completes the occasion. Thus It is understood that Kant's transcendental aesthetic provides the basis for Whitehead's notion of this 'subjective form'. Since it is defined as "the affective tone determining the effectiveness of that prehension in that occasion of experience" (1933,176). Subjective form provides some room for 'decision', regarding to how subject feels objective datum (P.R.43&221).

Although the philosophy of substance presupposes a subject which then encounters a datum, and reacts to the datum, the philosophy of organism presupposes a datum which is met with feelings, in so far as they entered into consciousness. Kant's act of experience is essentially knowledge. Therefore, whatever is not the knowledge is merely on its way to knowledge. In view of Kant's procedure with that of Whitehead's organic philosophy, it is suggested that 'an apparent' objective content corresponds to the end of Kant's process and takes place of 'satisfaction' in the process analyzed in the philosophy of organism.(P.R.155). At the beginning of the paragraph of the Critique of Pure Reason, this 'apparent' objective content is referred to as 'object', and Kant claims that " objects therefore are given to us through sensibility. Sensibility alone supplies us with intuitions". And these intuitions become thought through understanding, and hence arise concepts (A20,B34).This is expanded later to his statement in which Kant famously writes in the First Critique "thoughts without content are empty, intuitions without concepts are blind"(A51). It must be recognized that intuition and concept must always go together. In other words, nothing is merely given; intuitional experience, whether sensuous or a priori, is conditioned by process of conceptual interpretation.

It is suggested that Whitehead's notion is in agreement with Kant's position. Since Whitehead accepts Kant's claim that "in every act of experience there are objects for knowledge", objects that, in principle, can be known, but in different reason. There is no reason to assume that these objects actually are cognized, or that cognition, actually is involved in any given experience. Since that the functioning of concepts is an essential factor in knowledge, so that intuition without concept is blind. For Kant, apart from concepts there is nothing to know; since object related in a knowable world is the product of conceptual functioning whereby categorical form is introduced into the sense datum, which otherwise is

intuited in the form of a mere spatio-temporal flux of sensations. Thus, for Kant the process whereby there is experience is subjectivity to apparent objectivity. The philosophy of organism inverts this analysis, and explains the process as proceeding from objectivity to subjectivity.

Kant is the first introduced the conception of an act of experience as a constructive functioning, transforming subjectivity into objectivity, or objectivity into subjectivity. Kant, Hume, and the organic philosophy agree that the task of the critical reason is the analysis of constructs, and especially “construction is the process” (P.R.151). However, according to Whitehead, Kant’s doctrine of the objective world as a construct from subjective experience as well as the substance-quality principle of actuality has hampered the development of his cosmology (P.R.150). He considers that Kant adopted a subjective position, so that the temporal world was merely experienced. And also he states that “his temporal world, as in that Critique, was in its essence dead, phantasmal, phenomenal” (P.R.190). Furthermore, tells Whitehead “Kant was a mathematical physicist, and his cosmological solution was sufficient for the abstraction to which mathematical physics is confined” (ibid.).

Precisely speaking, the philosophy of organism admits the subjectivist doctrine, but rejects the sensationalist doctrine. In other words, it adopted ‘the reformed subjectivist principle’ (ibid.189) which is merely an alternative statement of the principle of the relativity. It means that its doctrine of the objectification of one actual occasion is in the experience of another actual occasion. That is to say, each actual entity is a throb of experience including its actual world within its scope (ibid.190). This leads, I think, to the notion that there is not any experience without subjectivity, and also no recognition with objectivity alone. Whitehead writes that “an object is a transcendent element characterizing that ‘definiteness’ to which our experience has to conform”(P.R.215). In the sense, future has ‘objective reality in the present, but no formal reality. In this point, he claims that the function here ascribed to an ‘object’ is in general agreement with a paragraph in Prof. Norman. Kemp. Smith’s view on Kant in which he says by an object is meant something which will not allow us to think of haphazard”(1).

In Whitehead’ principle, consciousness presupposes experience, and not experience consciousness (P.R.53). In other words, he maintains that it is not the case with our experience that consciousness is presupposed primordially, but it comes into being in the supplemental phase. In ordinary, epistemological way of thinking claims that consciousness is presupposed in experience, and the subject of consciousness tries to apprehend things, while object exists independently of subject based on subject-object relations. As regards consciousness, Whitehead’ way of thinking differs remarkably with Kant’s transcendental logic. Kant assumes in the First Critique, in which experience is basically conscious and cognitive. On the contrary, Whitehead says, “In general, consciousness is negligible in subjective experience” (P.R.308). Experience is implicit, below consciousness below in our physical feelings. And these physical feelings precede subjects; the latter is best described as the integration, or as ‘end’, of the former. The subject is not a substance, but a process. In fact, an actual entity is not a substance, the actual entity that finishes achieving its own self-realization is said to be a substance. And

this process is not usually conscious. This is why Whitehead rejects Kantian relation between subject and object depending upon Newton's assumption of individually existent physical bodies with merely external relationship.

(1)Smith writes in his Commentary on Kant's Critique, "When we examine the objective, we find that the primary characteristic distinguishing it from the subjective is that it lays a compulsion upon our minds, constraining us to think about it in a certain way"(249).

6. Judgment and Concepts

Whitehead inverted the Kantian notion. However, it is recognized that this inversion had already been done in Kant's Third Critique (Critique of Judgment). For there, Kant proposes a subject that neither comprehends nor legislates, but only feels and responds. He defines judgment in general is the faculty of thinking the particular as contained under the universal. When this universal is given beforehand, judgment is called as 'determinant judgment'. Otherwise, the universal has to be found, and in a case judgment is 'reflective'. This judgment seeks universal values such as the beautiful and sublime, or the purposiveness of nature, through particularity within nature or human arts. Judgment about the beautiful, i.e., the judgment of taste, functions to distinguish (*beurteilen*) whether something is beautiful or not. How can an aesthetic state of mind be both disinterested and emotive? This goes through the following process; first, the form of an object of intuition is represented, then the 'imagination' is placed by means of this representation undesignedly, in accordance with the understanding, and thus a feeling of pleasure is aroused. This feeling is not confined to a subject which apprehends the form, but it is supposed to be shared by 'every judging being'. In this case, the object of the judgment is called 'beautiful' (K.D.U, 30-31). Kant claims, "We do not want to know whether anything depends or can depend on the existence of the things either for myself or for anyone else, but how we judge (*beurteilen*)it by mere observation (intuition or reflection)" (ibid.47).In this way, Kant discovered the actuality of contentless thoughts and blind intuitions. Since rational ideas are precisely thoughts that no content can fill, and aesthetic ideas are intuitions that admit of no content. Beauty is felt rather than comprehended or willed. Intuition is decoupled with from thought. Kant's aesthetics is just one part of his total philosophical scheme. He insists that aesthetic judgments are non-cogitative, in order to differentiate them from judgment of understanding and from moral judgments. The Critique of Judgment might seem to play merely a marginal role in Kant's system, for Whitehead the Third Critique first.

In *Process and Reality*, Whitehead touches upon Kant's famous statement about intuitions and thoughts in order to point up this connection. He ironically accepts Kant's principle, only to apply it to "in exactly the converse way to Kant's own use of it" (P.R.139). He contends that Kant is obsessed with mentality of intuition, and hence with its necessary involution in consciousness. That means all apprehension is, in principle and in fact, already governed by concepts. However, this premise must

have been rejected by Whitehead. His position goes much further that Kant's suppressed premise is "intuitions are never blind" (P.R.139). He insists that philosophy should begin with a 'critique of pure feeling', instead of reason. For Whitehead, affect precedes cognition, and has a much wider scope than cognition. Understanding must therefore be subordinated to aesthetics. It is only after the subject has constructed or synthesized itself out of feelings, out of its encounter with the world, that it can then go on to understand that world, or to change it. In an aesthetic judgment, Kant is not asserting anything about what is, nor is legislating as what to be. Rather, he is lured, allured, repulsed, incited, or dissuaded. And for Whitehead, this is part of the process.

For Whitehead, judgment and concept arising in the formation of thought-objects of perception are in the main instinctive ones, and not concepts and judgments consciously sought for and consciously criticized before adoption. Whitehead's view holds that consciousness only arises in a late derivative phase of complex integration. In this connection, Whitehead introduces the concepts of 'presentational immediacy' and 'casual efficacy'. Presentational immediacy is a mode of perception in which the contemporary world is consciously prehended as a continuum of extensive relations (P.R.61). In human experience, the most complete example of non-sensuous perception is our own immediate past. According to Whitehead, immediate past is constituted by occasion or by group of occasions which enter into experience devoid of any perceptible medium between it and the present immediate fact (A.I.183). Perception, in its primary sense, is perception of the settled world in the past as constituted by its feeling tones, and as efficacious by reason of those feeling tones. This type of perception is called 'perception' in the mode of casual efficacy (P.R.120). This is our self, i.e., the foundation of our present existence which claims self-identity and share the nature of the by-gone occasions in its living activities, while modifying, adjusting it to other influences and completing it with other values (ibid). The interplay between the two modes is termed 'symbolic reference' which is so habitual in human experience that great care is needed to distinguish them. Kant and Hume regards Whitehead's notion of casual efficacy as a kind of thought for the given, namely Kant interprets it mode of the categories and Hume mode of habit. Though Whitehead accepts Hume's principle of regarding a given as a simple occurrence, but considers it as groundless teaching and tries to modify (1). Thus it is admitted that the data of objection in the organic philosophy are the nearest analogue to Hume's 'simple impressions' (P.R.86). That is why Whitehead called Kant's and Hume's view 'fallacy of misplaced concreteness' (S.M.W.).

Whitehead does not necessarily ignore the question of judgment, but he regards judgment as much narrower term than 'proposition'. Any proposition that is admitted into thought is thereby felt, and becomes a feeling. But only some of these feelings are judgment. Thus he states that "in the realization of propositions, "judgment is at very rare component, and so is 'consciousness'" (P.R.184).

(1)Whitehead states that an example of his idea 'lure for feeling's is given by Hume in which Hume says in his Treatise "That all our simple ideas in their first appearance, are derived from simple impression, which are correspondent to them, and which they exactly represent" (P.R.86).And he

modified Hume's view as the only lure to his conceptual feeling is an exact conformation to the qualities realized in the objectified actualities (ibid.).

7. Views regarding space and time

It is noteworthy that Whitehead is in clear contrast to Kant in terms of the view regarding space and time. Fundamentals of the space-time problem have been considered from the standpoints created by different sciences. Science does not diminish the need of a metaphysic. In fact, there are two antagonistic philosophical ways recognizing space and time. Whitehead gives a modern shape to the European philosophical traditions in terms of the words 'space' and 'time'. His general notions underlines the words space and time are those which has aimed at expressing in their true connection with the actual world(P.R.70).It means that our concept of space and time are deductions from experience, is exactly the same way as the Law of Gravitation is such a deduction.

The opposed philosophical method is to affirm that space and time are conditions for sensible experience, that without projection into space and time sensible experience would not exist. This philosophical position is expressed by saying that time and space is a priori forms of sensibility. From this standpoint, Kant argues that the representation of time is not of empirical origin. It is based on the fact that this representation must be previously given in order that the perception of coexistence or succession be possible. Space, for example, is a necessary constituent of the outer objects. Thus for Kant, space and time can neither be properties of things nor express relations of things in themselves. Space is rather the form of all appearances of external sense, while time is the formal condition of all appearance in general. This notion results essentially in that space and time are pure forms of intuition. Namely, they cannot be determination of things in themselves and their relations, but only forms of appearance. In this way, Kant argues for transcendental ideality of space and time in which they do not exist outside of the subjective conditions of our sensible intuition. For Kant,time and space do not have 'absolute reality' but only 'empirical reality' as conditions of experience.

Whitehead's understanding is such that Kant holds the view in the act of experience we are aware of space and time as ingredients necessary for the occurrence of experience (A.E.244). Opposed to Kant' view, he suggests that in the act of experience we perceive a whole formed related differential parts. His contention is that relations between these parts possess certain characteristics, and that time and space are the expressions of some of the characteristics of these relations. In short, generality and uniformity which ascribed to time and space express is termed 'uniformity of the texture of experience' (ibid.). This logical abstraction will lead to the advantage in which the extremely fragmentary nature of all direct individual conscious experience. For Whitehead, time and experience are necessary to experience in the sense that they are characteristics of our experience. In this way, he considers that the broken limited experiences sustain that connected infinite world in which in our thoughts we live. Whitehead does not agree with Kant's insistence that in the act of experience we are aware of space and time as ingredients

necessary for the occurrence of experience. Instead, he considers that in the act of experience we perceive a whole formed related differentiated parts (ibid.244). In this way, Whitehead cannot see that Kant's deduction amounts to much more than saying that "what is, is"-true enough, but very helpful"(ibid,245). Consequently, his position is that we should exclude such postulates from every parts of our organized thought.

8. Possibility of metaphysics

It is suggested that both Whitehead and Kant rejected traditional metaphysics and endeavored to establish a new metaphysics. S. Shaviro is saying that Whitehead "simply does metaphysics in his own way, inventing his own categories and working through his own problems" (W. C. x). Nonetheless, it is evident that Whitehead has made efforts to formulate a comprehensive cosmology in the tradition and succession of Plato's *Timaeus* and Newton's *Scholium*, scientifically sensitive, philosophical in nature, and informed by the wide possibilities of human experiences from aesthetics to logic, from mathematics to theology, from poetry to sociology (ibid.). Kant seeks a way out of old dogmatic traditions of metaphysics. It is well known that Hume's skepticism aroused him from his 'dogmatic slumber', and allowed him to address the problem of metaphysics in a new way.

With regards to methodology, Whitehead maintains that the accurate expression of the final generalities is the goal of discussion and not its origin. In other words, a verification of rational scheme should be sought in its general success, and not in the peculiar certainty, or initial clarity, of its first principle(P.R.7).This doctrine is essentially applied to his metaphysical categories in which 'creativity', 'many', and 'one' are the categories of the ultimate. Creativity, many, one are the ultimate notions involved in the meaning of the synonymous terms 'thing', 'being', 'entity'. These three notions complete the categories of the ultimate and are presupposed in all the more special categories. Especially, creativity is the principle of novelty and it introduces novelty into the content of the many, which the universe disjunctively. In the nature, entities are disjunctively many in process of passage into conjunctive unity. Thus creativity is the "universal of universals characterizing ultimate matter of fact" (P.R.21). Indeed, each occasion is creative in its very nature. Creativity should itself be taken as a sort of metaphysical ground. Since, it can adequately respond to the absolute singularity-the contingency, novelty, and irreplaceability-of every actual occasions of experience (W.C.150).

The problem which Kant outlined and developed in the *Critique of Pure Reason* concerns the possibility of metaphysics as science or the possibility of metaphysical knowing. In the Kant's Copernican Revolution, it amounts to the claim that experience is precisely the object produced by our cognitive faculty synthetically at work through its two functions of intuition and concepts. From Kant' viewpoint, experience is not the source of our concepts and intuition of reality; but sensibilities and understanding are the source of that construction which is experience. This predicament is reflected in the famous statement that opens the introduction of the *First Critique* "though all our knowledge begins with

experience, it does not follow that it all arises out of experience” (B1). If experience is the general object of our knowledge, all objects of knowledge are objects of a possible experience. This methodological move allows Kant a first answer to the problem of the possibility of metaphysics as science. Metaphysical knowledge is possible for Kant only as metaphysics of experience, given the new notion of experience.

What Kant has achieved his exploration of teleology in the Third Critique is a typical shift in emphasis away from metaphysics in the direction of methodology broadly conceived. It is no longer a question of the way ‘what the world is’, but of what is it possible for us to know and to understand. Since the phenomenal world is not given all at once, but unfold as we investigate it (1).

In this connection, Whitehead points out the difficulty with Kant’s transcendental Logic in which no element in his temporal world could itself be an experiment. He criticizes that Kant’s ‘subjectivist doctrine’ is combined with the ‘sensationalist’ doctrine concerning the analysis of the components which are together in experience. It is because that the only element not stamped with the particularity of that ‘occasion or stream’ is universals such as redness or shape. This leads to Leibniz’s principle of many windowless monads. Hence he emphasizes the possibility of knowledge should not depend upon the act of God, but the interwoven nature of things. Consequently, Whitehead concludes that “the philosophy of organism admits the subjectivist doctrine as stated in Kant, but rejects the sensationalist one” (P.R.190). Since Whitehead’s organic theory is a doctrine of the objectification of one actual occasion in another actual occasion, which is termed as ‘the revised subjectivist doctrine’.

Yet metaphysics makes claims that the objective realm of experience, for reason can well think of objects that will never be met within a possible experience. In order to address the peculiar difficulty raised by metaphysics, Kant draws the crucial distinction between ‘knowing’ an object and merely ‘thinking’ of an object. This distinction is paralleled by a further transformation of the notion of object now seen either as ‘appearance’-as object of possible knowledge; or as ‘things in itself’-as the unknowable object of mere thought, In order for an object to be thinkable, what is required is ‘logical possibility’ which is guaranteed by the principle of contradiction. But in order to know an object, its’ real possibility should be demonstrated, either empirically by experience of its reality or a priori by reason. All that can be known can also be thought, but not all that can be thought can be known. Counter to metaphysics, which has always mistaken the possibility of thinking things for the possibility of knowing them, the Critique establishes the sphere of what can be thought is not coextensive with the realm of knowledge. Therefore, it is the on the distinction between thinking and knowing that Kant ultimately grounds the peculiar relation between different use of reason.

Fundamental method of Whitehead’ philosophy is that fragmentally individual experiences are all that we know, and all speculation must start from ‘these membra’ as its sole datum. He emphasizes the point that our only exact data as to the physical world is our sensible perception. He therefore warns that we must not slip into the fallacy of assuming that we are comparing a given world with given perception of it. Hence he says “our problem is, in fact to fit the world to our perceptions, and not perceptions to the

world” (A.E.247).

In the organic cosmology, ‘extension’ is that general scheme of relationships providing the capacity that many objects can be welded into the real unity of one experience. The potential scheme is divisible, but its real division by actual entities depends upon more particular characteristics of the actual entities constituting the antecedent environment. In respect of time, Whitehead introduces the special form of the ‘epochal theory of time’ (P.R.68). And in respect of space, every actual entity in the temporal world is to be credited with a special volume for its perspective standpoints. Thus his conclusion is that in every act of becoming, there is the becoming of the something with temporal extension; but that the act itself is not extensive. Since it is divisible into earlier and later acts of becoming which correspond to the extensive divisibility of what has become (P.R.69). For Whitehead’s notion, the contemporary world is in fact divided and atomic, being a multiplicity of definite actual entities. In other words, he concludes with this question that the properties of the extension of an event in time are largely analogous to the extension of an object in space. Namely spatial extensions are expressed by relations between objects, temporal extensions by relations between events (A.E.237). When we analyze our experience, we distinguish events, and also of which changing relation form the events. Here it is suggested that the overall process framework constitutes the structure of narrative, particularly there lies an analogy between reality process and narrative. Thus the extensive continuum is that general relational element in experience whereby the actual entities experienced, and unit experience itself are united in the solidarity of one common world. Systematic scheme, in its completeness embracing the actual past and the potential future, is prehended in the positive experience of each actual entity (P.R.72).

In this sense, Whitehead implies this process correspond to Kant’s ‘form of intuition’ (ibid.). But he admits that his concept of extension is derived from the actual world, it is not pure in Kant’s sense of that term. That is to say, it is not productive of the ordered world, but derivative from it. This would be that actual fact includes in its own constitution real potentiality which is referent beyond itself. Whitehead says, unfortunately Descartes’ treatment of ‘endurance’ is very superficial, and subsequent philosophers (including Kant, I suppose) have followed his example (P.R.69).

(1) “Kant thinks that only organism satisfies the two conditions for being an end of nature; as an end of nature; a thing must be understood with reference to an idea determining a priori all that contained in it, or the existence and form of its parts must be possible only in relation to the whole” (Robert. E. Butts, *Teleology and Scientific Method in Kant’s Critique of Judgement*. R.Chadwick & C.Cazeaux, Immanuel Kant, 1992)

Conclusions

Whitehead’s encounter with Kant would allow us to see Kant himself in a new light. It is necessary to revert to Kant. Nevertheless, Whitehead is not usually thought to be pre-Kantian philosopher or ‘critical’ thinker. According to S. Shaviro, certain crucial aspect of Kant’s thought paves the way for the philosophical ‘constructivism’ embraced by Whitehead (W.C.48). The word of constructivism looks how

truth is produced within experience through a variety of process and practices. Particularly, S. Shaviro points to Kant's analytic of the beautiful in the Third Critique and of his transcendental arguments in the First Critique. For example, Whitehead states that Kant "fully and explicitly introduced into philosophy the conception of an act of experience as a constructive functioning" (P.R.156). It is noted that this Kantian notion of synthesis as an idea of 'place' (topos), instead of subjectivism (W.C.110). According to Whitehead, the modern science has the complexity of the whole material universe. It is called as a 'field'(A.E.225). In the margins of Kant' text, it is convinced that alternative of suggestions and possibilities awaits their proper elaborations, although he remains within the tradition in terms of the dualism of form and matter.

There are important affinities and heterogeneities between Whitehead and Kant as to the necessity of proper philosophical method and manner composing their doctrines. But one of the problems that arise is, Kantian philosophical approach of self-reflection of human reason itself makes it inevitable for him to confront philosophical difficulties. It is because that the reason essentially goes beyond the limits of itself. Then it endeavors in trying to give solution to the question originated in it. However, one can overcome the difficulty through free himself from reason itself that constraints him. In a sense, a certain aspect of the topics concerning beauty and teleology which Kant extends in the Third Critique must therefore have had the problem of limits of human reason. For example, through ideas human reason considers the reality of things and nature as a whole "as if" it were totality ordered by a highest intelligence. In the sphere of theoretical knowledge, ideas have reality as schemas of a regulative principle of the unity of all knowledge of nature. It is in this function that human reason relates to the knowledge attained by the understanding and even opens up new ways that the understanding does not know, allowing it to extend its research in infinite directions.

In view of methodology, Whitehead tried to consider singularity through the general description of experience. In this sense, he developed his own words like 'prehension', 'process', 'many', and 'creativity', and others in order to respond to the possibility of philosophical openness and potentialities. Obviously, Whitehead puts more emphasis on the realistic usage than abstract or theoretical concept in philosophical consideration of words. For he is much more concerned with the essentiality, that is to say 'proposition' which is characterized through describing possibility of using actual words. This would lead to be more openness to different philosophical activities in terms of various connections and encounters. The important question for Whitehead is not what something is, but how is it. More precisely, how it affects, and how it is affected by others things (W.C.56).In other words, how an actual entity becomes constitutes what that actual entity is, its 'being ' is constituted by its 'becoming' (P.R.23). Kant rejects the quest for an absolute determination of being. Because he thinks it is an unfulfillable and meaningless. Instead, he seeks to define the necessary conditions for the existence of whatever there is. Hence Kant warns that we cannot think beyond the conditions, or limits of thought that he establishes. It means that the way in which things appear is limited, but appearances themselves are not.

On the other hand, Whitehead insists that this world is a world of idea, in some general sense of the term, a deduced concept which is not a chain of reasoning, but a deduction through a chain of definitions. That lifts thought on to a more abstract level in which the logical ideas are more complex, and there deductions are more universal (A.E.246). Thus the explanation of the precise connection between this world and the feeling of actual experience is the fundamental question of philosophy. So he emphasizes the points that our only exact data as to the physical world are sensible perceptions. In the broadest sense of methodology, as our mental process or forms of representation are always limited, we are always forced to confront our own limits. Whitehead is not directly concerned with the question of limits. But he reminds us with that metaphysical system is not ever complete. While Kant rejects the possibility of knowing 'things in themselves', instead points to the way that we are always already constructively involved with whatever it is that we experience or perceive.

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**How to Keep A Harmonious Relation to Nature:
from the Perspective of Whiteheadian Viewpoint of Organist Cosmology**

YANG Fubin (Beijing International Studies University, China)

fubinyang2000@yahoo.com.cn.

Abstract

What is the appropriate relation between human beings and nature? What kind of attitude should we take towards nature? From the perspective of Whiteheadian viewpoint, we should try our best to keep a harmonious relation to Nature. And the violent earthquake and the tsunami that immediately followed the earthquake in Japan this year tell us that this is true.

I. Why should we take a harmonious relation to nature? According to the viewpoints of organist cosmology, the whole world is an interrelated network and there is no absolutely isolated islands in the actual world. Therefore any individual actual entity is a part of this whole in its reality.

II. What negative effect will we have to bear if we do not treat nature as a friend? If we say that the earthquake and tsunami are the natural result of earth movement following to its law in the universe, the nuclear leak is not the same. No modern science and technology, we can not develop and use the nuclear energy. So it is the time that we reflect over our ideas about the usage and function of modern science and technology.

III. What is the fundamental viewpoints of the organist cosmology put forward by Whitehead? Everything is a concrescence: it has its historic resource; it has its actual fundament; and has its future prospect and has its actual entities around it to be prehensioned by it. Nature is an organic whole and each part inside it is interrelated each other.

IV. Conclusion: We should be kind to nature and we human beings should be the friends of nature, not the enemies of it in our ordinary life. Also we human beings should take each other as friends, not as enemies in our ordinary life. No other plants, no other animals, we human beings can not continue to live in the world. Not alone no other human beings. No any nationality is superior over other nationalities in modern world. We are equal and we are the same kind of species in the classification of animals. And science and technology is the means to improve human beings happiness, not the means by some one to govern and control others. The last aim of human society should be searching for peace, friendship, love, and beauty.

Study on Lightning-Proof Mechanism in Buildings via Naturism Concept in Ancient China

YANG Xiao-ming (Donghua University, China)

GAO Ce (Shanxi University, China)

ynide@sina.com

Abstract:

On the lightning-proof measures applied for ancient buildings in China, the popular opinion is that the modern mechanism was analogously applied. To this viewpoint, after years' on-the-spot survey, the authors of this paper gives a negative answer. Furthermore, a new answer is given in this paper, that is, the integration of the insulating characteristics of ancient buildings and the natural elimination to lightning from ancient buildings themselves or their environment. To an important extent, the lightning-proof mechanism used in ancient buildings in China was related to the naturism concept of ancient Chinese.

Keywords: lightning-proof mechanism; ancient building; China; insulating characteristics; natural elimination to lightning; naturism concept

Since modern lightning-proof measures were marked by Benjamin Franklin's invention of lightning rod in the 18th century, an interesting question thus arises, that is, why haven't many ancient buildings in China been struck by lightning? Due to the ignorance of their real mechanism, the question has been an enigma for a long time. After years' on-the-spot survey, a general theory referred the mechanism is conceiving in our minds. This is just a summarized paper on the survey.

Part One

Are the Same Mechanism: Lightning-Proof Measures between Ancient China and Modern Time?

For a long time, there is a popular opinion on the lightning-proof mechanism referred Chinese ancient buildings, namely, the modern lightning-proof mechanism is analogously applied in these

ancient buildings. However, this opinion couldn't come into existence.

Although there are a lot of lightning-proof measures applied in modern time, the basic mechanism is only two, the one of lightning rod, and the other one of ion-neutralization. The purpose of the former, is to lower the intensity of electric field above buildings, by leading the opposite charge down to the ground. The purpose of the latter is just the reverse, to neutralize the charge in the cloud by leading the opposite charge on the ground upward through the ion-neutralization device, or to produce a protecting layer above buildings through the device's discharging. Many scholars thus take the lightning-proof mechanism of Chinese ancient buildings as one of the above two.

To the first mechanism, so far this sort of devices as lightning rods haven't been found in Chinese ancient buildings except for Bailiang Palace in Han Dynasty, and one example which is distrustful. Sometimes there are metal devices found within ancient buildings, such as Aquarius, treasure temple, *dragon head* and *bird tail*, but even one sample hasn't been observed, whose metal device is connected by metal conductor down to the ground. Someone then proposed that the *Leigong* (Thor) column, *Taiping* (safe) girder, edge post and the same probably play the role of the line to lead the thunder current down to the ground. However, the heat produced by the thunder current is over 6,000~10,000°C and could have burned any timber, brick or stone, the *Leigong* column, *Taiping* girder, edge post and the same couldn't be the lead line. Therefore, it is obvious that the measure applied lightning rod hadn't been developed in ancient China.

As for the second mechanism, there is also no reason to be accepted. Firstly, like the mechanism of lightning rod, the ion-neutralization needs the downward lead line. However, as the above mentioned, there is no device as lead line. Secondly, some scholars believe the metal decorations on the top of ancient buildings just play the same role of the device for ion-neutralization. This opinion is also unable to be oppugned based on the following reasons. 1) In order to discharge, the ion-neutralization device needs several metal pins connected together through conductors, while the metal decorations on the top of ancient buildings are independent, that is to say, videlicet, there are no metal lines to connect among these metal decorations; 2) The ion-neutralization device needs several metal pins, which are good conductors, while there is usually one metal decoration on the top of ancient building, and the only one decoration was painted with some insulating materials such as tung oil; 3) Many ancient buildings in China have been installed lightning rods since 1950's, and the rate of lightning strike greatly decrease. As the above mentioned, the lightning-proof mechanism of the lightning rod is just the reserve to that of ion-neutralization, the two measures shouldn't be put together, otherwise the building will become

easier to be struck. Therefore, if there had really existed ion-neutralization device within ancient building, the building should have been easier to be struck.

Part Two

The Lightning-Proof Mechanism of Chinese Ancient Buildings: Insulating Characteristics and Natural Elimination to Lightning

For years' on-the-spot survey, a conclusion is made in our minds, that is, the lightning-proof effect is probably accomplished by the integration of two factors. One is the insulating characteristics of ancient buildings in China, the other is the elimination to lightning from ancient buildings or their environment. The insulating characteristics makes the buildings be able to bear a more intensive lightning strike; And the natural elimination to lightning makes the thunder charges disappear greatly, thus the charges are diverted to the protruding objects or tines surrounding the buildings. Apparently, the above-mentioned two factors are of the same mechanism, namely, the selectivity to lightning strike, whose purpose is to divert the thunder charges to the protruding objects or tines surrounding the buildings. Of the two aspects, the insulating characteristics is fundamental and absolutely necessary, but is also relative. Without the natural elimination, any ancient building would have been struck. However, in ancient China, due to the rule and need of the prevailing geomantic omen theory to the constituents referred the buildings, such as geographical environment, interspace structure, geological status, environment, architecture structure, and etc., as a result, the above-mentioned two lightning-proof aspects are integrated intrinsically and objectively. (1)

As for a concrete ancient building, the scale between the above two is probably different, but the one must be possessed at least (of course, the integrality of the two is the best). Otherwise, the building is very probable to be struck.(2) Below are the three examples in Shanxi.

1) The natural elimination to lightning and the lightning-proof effect of the group buildings in Wutaishan Mountain area

By our opinion, as well as the good insulating quality within themselves, the more important and more intensive capacity for natural elimination to lightning makes of the reason of being rarely struck for the group buildings in Wutaishan Mountain area for nearly 2000 years.

From North Qi Dynasty to Qing Dynasty, there once were hundreds of temples in Wutaishan

Mountains, including 58 temples still survived nowadays, especially the East Main Hall of Foguang Temple and the Dafo Hall of Nanchan Temple which of all were built in Tang Dynasty and were also the earliest timberwork buildings in China. Of all the buildings in the area, Grand White Pagoda built in 1407 is the highest, 56.4m high. Although there were hundreds of buildings which had undergone a very long time, and no lack of tall buildings in Wutaishan Mountain area, the record on being struck has never been found. Obviously, the natural elimination to lightning from the environment plays the main role in the lightning-proof process.

Before the electricity rises, the thundercloud is neutral, so the separated positive and negative charges must be of the equal amount after the electricity rises. The ways of neutralization of thundercloud charges are usually two, eruptible thunder and peaceful elimination to lightning. The rate of elimination to lightning from nature is above 80%, the thunder we feel is only the remains after the elimination. The natural elimination to lightning is actualized by the means of protruded and tine objects on the ground, so the eliminating capacity in each area is quite different, and the selectivity of lightning strike indicated this point. As a whole, the environment in Wutaishan Mountain area is of rather intensive eliminating capacity. From the viewpoint of the locality of each temple, the lightning strike is capable of being avoided to the extra extent.

Firstly, there are a great amount of the phenomena involved Buddha lamp or god lamp in the record about Wutaishan. These phenomena are of some common characteristics, for example, most of them emerging on the thunder storm, mist or snowy days, emerging at the time when the sky is gray or dark and often in the night, specially all emerging above temples, trees, mountain rocks and humans. The mechanism for these phenomena can be explained as follows: as a result of the action of thundercloud electric field, the faradic charges emerge on the ground. According to the distribution law of conductor charges, these charges are likely to centralize on the protruded and tine area, therefore, a more intensive electric field is formed on the surrounding. When the intensity of the electric field files up to an extent, a discharging phenomenon should take place on the protruded and tine area, on the meantime, a layer of light aura, namely, the electricity aura, usually emerges on the surrounding, which looks especially distinctive in the night, that is the so called Buddha lamp or god lamp. This discharging action makes the intensity of the electric field lower, the eliminating effect to lighting is thus accomplished.

Secondly, the topography around the group buildings in Wutaishan Mountain is available of natural elimination. These ancient buildings are mostly located at the mountainside or upper area on maintain

bottom, where great mounts are on the back and an expansive land ahead along several rivers or brooks. Meanwhile, these temples are encircled within the mountains and set off one another by age-old trees. These settings, especially high and steep hills, needle and protruded rocks, and very tall trees, are of very intensive ability to eliminate lightning. When the thundercloud forms above, the ancient buildings locate on the zone of weak electric field due to the eliminating effect from environment, in other word, the ancient buildings are screened.

Thirdly, the environment on Wutaishan Mountain area is propitious to natural elimination to lightning. On Wutaishan Mountain, there are flourish woods and grass, of these, only the acreage of foresee is near 4,000ha. Not only is the flourish woods able to restrict the air to move vehemently, but to conduct the faradic charges on the ground up to the air by way of their innumerable treetops. Especially robur, the own tree species on Wutaishan Mountain, whose forest acreage is over 800ha and accumulation amount over 50,000m³, as well as birch and larch, is the main factor for natural elimination to lightning by means of its deep roots.(3) The mechanism is that the deep roots of these trees with the humid subsoil form good conductors, which make the neutralization easier between the charges on the ground and the air, therefore, the robur is the tree that is likely to be struck. Besides, there are a lot of water resources on the Wutaishan Mountain area, such as the brooks, springs, wells and rivers. These water resources along with their surrounding are also the places easily struck. Thus, the environment on Wutaishan Mountain area makes up of its own characteristics for natural elimination to lightning.

In a word, by selecting reasonably the site, that is, not only the selection of Wutaishan Mountain area where the whole capacity for natural elimination to lightning is intensive, but the most exertion of the natural eliminating effect from local landform and objects on the ground, ancient Chinese make their buildings be rarely struck, the building-group on Wutaishan Mountain area is only a type of this factor.

2) The natural elimination to lightning from the Building itself and the lightning-proof effect of Yingxian County Wood Pagoda

From the viewpoint of natural elimination to lightning, the buildings themselves are also the protruded and tine objects on the ground, if there are the top-end and metal ornaments such as Aquarius and treasure temple on their tops, the eliminating effect to lightning could be accomplished to some extent on thunder storm days. Yingxian County Wood Pagoda in Northern Shanxi is located with

the surrounding of clear and sterile flat, its capacity for natural elimination to lightning from the environment is limited. However, the pagoda has never been struck since its construction in 1056. What's its mechanism? By our opinion, the main reason is the good integrality of both itself eliminating capacity and excellent insulating characteristics. There is a metal temple on the top of the pagoda, whose base is connected by eight iron chains of no ornamental use. The eight iron chains could be similarly applied for the upper cover of Faraday Cage, namely, umbrella implement for ion producing(4), thus a amount of thunder charges could be eliminated. Furthermore, the whole framework of the pagoda is made of pine, the groundwork is composed of two layers, the 4m high upper layer is built by stone, white ash, brick and compacted mud, the lower layer stone, scree, brick and compacted mud. As well as the dry surrounding earth layer, both the groundwork and the whole pagoda body are of excellent insulating characteristics. Thus the integrality of the intensive capacity for elimination from itself and the excellent insulating characteristics, is the key lightning-proof mechanism for Yingxian County Wood Pagoda.

3) The lightning-proof effect from insulation and the double pagodas in Taiyuan

After years' investigation, Chinese was able to distinguish conductor and insulator to some extent in very early times. In other words, it is very possible for ancient Chinese to carry out the lightning-proof effect from insulation based on the understanding level for thunder. Taking the building-group in Wutaishan Mountain area for an example, the used materials are mainly divided into three categories: pure metal, timber and brick-stone. As for the pure metal building, for example, copper palace and copper pagoda, its permeation with the nature makes its lightning-proof effect obvious. As for the timberwork and brick-stone building, its frame is mainly composed by groundwork, wall body and top. The groundwork is made up of brick, stone, slurry, timber and tampered mud, all of these materials are insulative or close to insulative, with the moisture-proof, antisepticising, quakeproof and waterproof functions from the material choosing and building technique, the whole groundwork is a excellent insulator; The wall body is mainly made up of timber, brick and stone, slurry, brick dust, putty, hemp and oil paint, all of these materials are of good insulating characteristics, with good technics and structure, the wall body is waterproof and is able to withstand the rainstorm; The materials to make of the top are timber, tile, ash, mud, oil paint and metal. Except for the metal, all the materials are good insulators. In addition, almost the dainty buildings are dealt with the process of insulation on the surface, for instance, the timberwork and the metal section are painted with oil paint and tung oil, and

the brick-stone section with the mixture of tung oil and brick dust. As a whole, the building-group in Wutaishan Mountain area is of good insulating characteristics, if being not destroyed, the group isn't easy to be struck. Meanwhile, the good surrounding ventilation makes the buildings clean and dry, the insulating characteristics isn't easy to be destroyed. The excellent insulating characteristics, supplemented each other with intensive natural capacity from the environment, prevents the buildings from lightning strike very effectively.

The typical example whose main role is played by means of the building's own insulating characteristics should be the double pagodas in Taiyuan. The double pagodas built in 1608 were the superexcellent brickwork building in Ming Dynasty. Each of the two pagodas is of octagon bottom planes, hollow bowel, 13 layers and 54.7m high. The pagoda body is whole brick-stone work, except for one supporting timber on the corner eaves of each layer. Meanwhile, the double pagodas locate on the highland where the soil is dry, and couldn't be drenched by the rain. Therefore, the pagoda is of more excellent insulating characteristics even than the buildings in Wutaishan Mountain area, more like the big overhanging cluster along transmitting electricity line nowadays.⁽⁵⁾ The double pagodas locate on the highland of Taiyuan, the natural eliminating capacity to lightning from the surrounding is weak. Meanwhile, each pagoda is of the only one high spire and some protruded eaves on each layer, thus the eliminating capacity is insufficient. The reason for the double pagodas not to have been struck for nearly 400 years, is mainly their own excellent insulating characteristics.

Part Three

The Ancient Buildings on the Imperial Palace in Beijing: A Reverse Example

As we discussed as above, although the keystone for lightning-proof measures may be different, at least one of the two measures must be possessed, namely, the natural elimination to lightning from the surrounding or the building itself, and the insulating characteristics from the building itself, or else, the building is very likely to be struck. For instance, the ancient buildings in Beijing had once been struck more severely and frequently. The main reason is its very feeble capacity for natural elimination to lightning from the surrounding. Generally speaking, the eliminating effect to lightning from both the macroscopic environment and the microenvironment in Beijing is much weaker than that in mountain areas. Typically, the Imperial Palace, which had been frequently struck, is of a total area as much as

over 720,000m², its surrounding protruded objects are only the Jingshan Mount and the White Pagoda in Beihai Park, so the natural eliminating capacity to lightning from the surrounding is weak. The ancient buildings in Beijing are commonly tall and grand, thus these buildings are the most distinct protruded objects compared with their flat surrounding. Although most of the buildings are of good insulating characteristics, their tallness and protrusion also make them be easily struck by the thunder. And usually to a different extent, some in-house settings and decorating components of many ancient buildings in Beijing may have destroyed the whole insulating characteristics of the buildings, thus an important factor for being struck arises. The Chengqian Palace's being struck on the Imperial Palace on 2 June 1984, results just from a treasure box with metal inside in the lower-middle front ridge of the building. In fact, all the ancient buildings on the Imperial palace are placed a similar treasure box!

To an important extent, therefore, the lightning-proof mechanism used in ancient buildings in China was related to the naturism concept of ancient Chinese.

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The Significance of Whitehead's Philosophy of Organism: Its Novelty and Universality

YOSHIDA Koji (Sophia University, Japan)

kyoshi@carrot.ocn.ne.jp

Abstract

A. N. Whitehead constructed his philosophy of organism in the early twentieth century when the dramatic changes occurred in philosophy, science, and civilization. According to *Process and Reality*, he endeavored to “frame a coherent, logical necessary system of general ideas in terms of which every element of our experience can be interpreted.”

This implies two aspects of Whitehead's philosophy: on one hand, his philosophy of organism as metaphysics has the universality without temporariness. Though it was constructed about a hundred years ago, it conveys profound truth even today. On the other hand, his philosophy as cosmology is based on his contemporary sciences, social situations, and so on. This suggests that Whitehead's philosophy also become old-fashioned someday, and some future great philosopher may say: “The *Process and Reality* of Whitehead, considered as a statement of scientific details, is simply foolish. But if it be read as an allegory, it conveys profound truth.” Then what is the significance of Whitehead's philosophy beyond ages?

In this paper, I propose that the significance of Whitehead's philosophy is in novelty of *style* in his philosophy. He invented many original notions, and in particular actual entity, prehension, nexus involve “some divergence from antecedent philosophical thought.” If we considered each as a concept having a univocal meaning, the possibilities to develop Whitehead's philosophy would be bound by such concepts. However, if we find novelty of his philosophy in its *style* to express the concrete elements in our experience, those notions function as open to various interpretations of his philosophy and as generating various systems of meaning. Whitehead created novel style which is style of neither western traditional philosophy nor positivistic science. In conclusion, I will provide what features its style has.

The Significance of Whitehead's Educational Philosophy in the Reform of China's Higher Education

YUAN Duo (The Education Institute of Zhanjiang Normal University, China)

yuanduo1965@163.com

Abstract: Whitehead's educational thought is the deepening and application of his process philosophy in the field of education. His thoughts, which are on educational purpose, educational process on educational innovation, have important significances for resolving the higher educational problems that exist in China. These problems are: China's higher education is too much concerned about intellectual education and fails in moral education; the education approaches are humdrum and lack in innovation.

Key words: Whitehead, educational philosophy, the reform of higher education

Whitehead's educational philosophy is not so popular as it should be in academic circle in China. Whitehead's educational philosophy, as a scale, is very significant in helping educators reflect and solve the problems in China's higher education theoretically and practically.

1. The major points in Whitehead's educational philosophy are as follows. Whitehead's process philosophy aims to deconstruct the thinking style of Dualism in the Western traditional philosophy, and reconstruct the speculative metaphysics theory.

The central idea of Whitehead's process philosophy is that the essence of the world can be interpreted as a process, and the substantiality of the world lies in its process. The process is the world and the world is the process; the process is the actuality and the actuality is the process. Therefore, Whitehead sometimes calls this idea "Organic Realism". He believes the final basic unit that structures the world is an "actual entity"^①. The actual entity is changeable, and it is in the constantly changing world.

Whitehead believes if the epistemological problems and the problems of realism are entirely independent, they can not be resolved properly. The dualism between the subject and object of cognition, between knowledge and object, and between sense and reference is the drawback that he thinks is in the modern philosophy and even in the whole western philosophy. Thus he tries to use the concept of "prehension"^② to dispel the opposite dualism. According to the basic ideas of process philosophy,

Whitehead points out the word "subject" in the traditional philosophy easily causing misunderstanding. And he thinks "superject" is the best word to express the relative ideas^③. About the object of cognition, Whitehead thinks that the object is formed in the process of cognition, and it is the object that has relation with the subject in reality, or is the object of the subject's cognitive activities. In the relationship between the subject and object, Whitehead believes that every actual experience occasion is a subject and the subjectivity of occasion exists with the existence of the occasion. The actual entity may disappear forever from the subjective aspect, while it is immortal from the objective aspect.

The major points in Whitehead's educational philosophy are as follows. Whitehead's educational philosophy is mainly embodied in his book "Educational Purposes". He explains his educational idea systematically from educational purposes, educational process and educational innovation, etc. All of these ideas have a prominent guiding significance for higher educational reform in China.

1) The educational purposes are to overcome all the traditional dualism. And Whitehead proposes the integrated education to make "wise" men. Therefore, some actions should be taken: a) Eliminating the separation between subjects must be integrated to the educational theme—life. b) During the integration, the relation between technical education and humanities should be handled well. If the technical education is not involved in the liberal arts, it can not be perfect; if the liberal education is not involved in technology, it cannot be satisfactory.

2) The educational process ought to be based on the process of understanding the world. And Whitehead advocates the educational rhythm and emphasizes the educational process. His understanding of the nature of the world in the educational process is mainly reflected in his statements on the educational rhythm. In his well-known thesis "the essence of life is cyclical", he thinks that the educational process experiences three stages, namely the romantic stage, the precise stage and the integrated use of stage.

a) The romantic stage is the stage of beginning apperception. "In essence, education must make the active but chaotic thoughts, which have already been existed in the brain, in order. You can not teach an empty mind^④."

b) The precise stage is embodied in the extensive relationship of knowledge that is subordinated to the accuracy described systematically. "In the precise stage, we acquire the other facts in order, and then make a further analysis about the general contents of the romantic stage^⑤."

c) The integrated use of stage adds the classification concepts and the related skills and after that it returns to the romantic stage. This is the goal that the precise stage is always pursuing. "The

educational process between infancy and the age of sixteen and a half focuses on the vibrant rhythm of life and movement^⑥."

After the age of sixteen, it comes the liberal arts and science. In the university education, the integrated use of spirit should be in the dominant role. Intelligence training is the main content of university education. Whitehead's educational rhythm shows whether the development of one's life or the mastering of knowledge, they have to go through three processes—the romantic stage, the precise stage and integrated use of stage.

3) In terms of educational innovation, he states the "actual entity" contact mechanism, focuses on the educational relevance and proposes initiative.

As the process philosophy emphasizes process, dynamics and generating, it pays more attention to the event correlation. On education, Whitehead especially focuses on educational correlation. He believes that different ages should have different learning contents and learning styles, and learning environment should be established combining students' physical and psychological characteristics. The problem that education should resolve is to make students single out one thing and bring out its interrelationships. "A teacher has a dual role: He arouses students' passion through his own personality and character, meanwhile, he creates an environment of more extensive knowledge and stronger purposes^⑦." Therefore, he particularly opposes to stale and rigid philosophy of education and proposes initiative. Aiming to prevent the stale spiritual and ideological rigidity, he puts forward two educational religious disciplines: a) don't teach too many subjects. b) Subjects should be thoroughly taught. It is no use to stuff the brain with lots of theoretical knowledge without solid understanding. To keep up with the educational rhythm and construct the connection between subjects, the human brain should be in a perpetual campaign and overstep the rigid concepts of modern education.

Innovation is also emphasized in Whitehead's philosophy. He attaches importance to intellectual education, and holds that education, if not begins with pioneering spirit simulation, and not ends in facilitation of this kind of spirit, must be a wrong one^⑧. He even suggests that the decadence of the British Empire is attributed to its ruling class's lack of foresight, monotonous idea of materialism and the narrow criterion of the loyalty to politicians like the Pharisees'.

3. Whitehead's educational philosophy may give us some inspirations.

Although higher education in China has made considerable progress in development, some problems have not been ameliorated radically such as emphasizing intellectual education at the expense of moral education. Whitehead's educational philosophy is instructive to China's higher education

reform.

1) From the perspective of educators' mission, education is to cultivate wholesome persons, but ignorant and amoral one-dimensional ones. Integration, according to Whitehead's Education Integration Thought, includes three aspects: learning approach integration, curriculum integration, scientific and humanistic integration.

Educators are supposed to, on the one hand, help students, from the respect of rational science, grasp the basic concepts, principles, laws and skills and problem solving methods, in order to equip them with scientific consciousness, seeking truth from facts with serious scientific attitude, and have the basic scientific research ability. On the other hand, in terms of humanities and social nature, focusing on irrational factors like affection, will and intuition in teaching, he emphasizes the social intercourse and potential influence on education environment. He also attaches importance to cultivating students' humanistic literacy and spirit, and developing students' confidence and the ability of self-control to build up a good personality of aggressiveness. At present, China's educational integration still remains on the curricular level. How to integrate natural science with humanities so as to make wholesome persons will be our ultimate goal.

2) From the perspective of education process, learners should have fun as well as knowledge and wisdom, and education should be a process of adventure, enjoyment and freedom. However, the current education is too much concerned about utility and fails to care for the life, which is showed as follows.

The philosophy itself is reasonable, in practice, however, is distorted. Modern education philosophy advocates students' wholesome and real development of knowledge, skills, affection and value, whereas the exam-oriented education whose target is still set in the pursuit of graduation rates has not changed substantially, but is even worse off in many parts of the country.

In teaching practice, people always disobey the laws. Because of this, primary school students do not experience the freedom and happiness as they should do in romantic stage. The idea of deduction of students' study load ends in the opposite. Students are bearing a even heavier burden than before. In high school, this problem is more serious. These phenomena show that the value of education is falling.

As consequence, the current education is too much concerned about marks, and fails to care for students' affection, strong will, good faith, love, kindness, cooperativeness, gratitude, the ability of practice and so on. University students fail to develop their ideological cultivation, professional morality and law consciousness as well as knowledge on law.

3) In terms of educational value, the status of the combination of educational innovation and

creative minds must be highlighted. The question why Chinese university students lack innovation is pointed out in the draft of Qian Xuesen's last systematic talk (Xinhua Abstract, No.2, 2011). Qian considered that the problems in the mode of talent-training, academic environment, thinking way and evaluation criteria in modern Chinese higher education are the major constraints of the education development. This is called, in China's academic circle, "Mr. Qian's Puzzle". The essential is how to explore and make use of creative talents in developing countries. That is to find a way to transfer the educational mode from teaching knowledge and skills into cultivating students' ability of innovation and invention. However, there will never be answers to Qian's Puzzle until problems like exam-oriented education model, academic corruption and plagiarism have been solved. Taking "Mr. Qian's Puzzle" and the importance of innovation emphasized in Whitehead's educational philosophy into consideration, we should:

a) The whole China should think about the current problems of higher education, especially those concerning the evaluation system and criterions, and encourage innovation in both conception and mechanism.

b) Educational subjects ought to be in a dominant role in education. Educators are supposed to lead students to active leaning and studying, and cultivate their abilities of searching and processing information, problem analyzing and solving, as well as abilities of communication and cooperation.

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The theory of human dignity of Marxism and its practice in contemporary China.

YUAN Zushe (Shaanxi Normal University, China)

zushe@163.com

Abstract

Based on the history of Marxism, discuss the forming process of the relevant theory related to human dignity, the basic contents and the status and function of the theory of human dignity. Focus on exploring the Chinese Communists' practical exploration and experience of the theory of human dignity as the main achievements of Marxism in different period of Chinese revolution and construction, put forward the strategic choices of continuing to push forward the sinicization of the theory of human dignity of Marxism and the prominent problems need to be solved in sticking to the people-oriented scientific development concept, in the great practices of striving to build a socialist harmonious society.

1、 The forming process of the theory of human dignity of Marxism.

- 1.1 The history bases of the forming of the theory of human dignity of Marxism.
- 1.2 The time background of the forming of the theory of human dignity of Marxism.
- 1.3 The theoretical foundation of the forming of the theory of human dignity of Marxism.
- 1.4 The practical foundation of the forming of the theory of human dignity of Marxism.

2、 The main contents of the theory of human dignity of Marxism.

- 2.1 The connotation of the human dignity of Marxism.
- 2.2 The fundamental value: equality and freedom, involves in the human dignity of Marxism.
- 2.3 The relationship between human dignity and human rights.
- 2.4 The status and function of the theory of human dignity in the Theory of Marxism.
- 2.5 The differences between the theory of human dignity of Marxism and Western human rights.

(the second part and the third part need integrating)

3、 The practical exploration and experience of the sinicization of the theory of human dignity

- 3.1 The protection came from the communist party of China for human dignity in the New democratic revolution period.
- 3.2 The establishment of New China and the gradual realization of human dignity.(1949-1956)

From the Climate Change to Changing Skeptics: “Genus” Point of View

Denys ZHADYAEV (National Metallurgical Academy of Ukraine, Ukraine)

takuscanscan@live.com

Keywords climate change, environment, process, microscopic, macroscopic, corporation, scholar, actual, real

Introduction

In his book “The Function of Reason” Alfred North Whitehead argues that there must be one scheme of thought for which all sciences must be related as species. To be sure, ecology is a science as well. Then, it must be taken into account that except ecology there are many other “species”: economics, chemistry, physics, war effort and so on. Why the efforts of ecologists are so much but the changes are so slow? May it be that ecology, dealing with its own subject (“oikos” – home) has lack of an argument? We must consider this problem from so-called “genus” point of view.

We believe that process philosophy still can overcome some difficulties if only it *is* ‘coherent’, ‘logical’ and ‘necessary’ and if it *will be* ‘applicable’ and ‘adequate’. ‘Logical’ in Whitehead’s meaning is to be lack of contradiction. But there is one inevitable contradiction which lies in relation of man and nature. It is reasonable to suppose that man is creature of the nature but the creator must be much wiser than his creature (it seems logically consistently, at least). Thus, a novel question is arising: if a man makes harm to the nature then, does creator so wise? And if a man can feel his responsibility and can help nature, then creature is wiser than that nature? Here is responsibility of man bounds with his well-earned power. But we may ask: does it really bounds with his deserved power or it is merely his veiled and scanty desire of that power? Could it be that the wisdom of the nature lies in its consequent using of its own small creatures, even in mistakes of those creatures?

The aim of this paper is to make an approximation to logical solution in controversy between human and nature from the process point of view.

Such a problem like global warming cannot be resolvable from definite point of view and from mere special scientific directions or philosophical schools. Just because there are not definite bounds between organisms likewise they are not between science, religion and metaphysics.

The object of our consideration is process metaphysics and circumambient situation at all (including not mere nature but also different *interests* of corporations).The subject is consideration of *how* philosophical arguments are possible instead of *what* the arguments are more reasonable.

Tasks we are pursuing to:

- to draw up some brief sketch of points of view in the history of philosophy regarding relations between man and nature;
- to define the situation in corporations and scholars so that to understand why changes in the society so slow?
- to carry out a research into what the ways process philosophy could offer so that dialogue between environmentalists and business groups could be possible.

The problem of ecology was considered by many scientists, philosophers and even by religion leaders. There are two groups which are opposite in their views on climate change: who believe in global warming and who consider it as a myth. For example, contemporary scientist A. Scarfe tries to define causes of environmental pollution and to find out better understanding of that causes. There is other point of view presented by some public activists like J. Ball who is skeptical to climate change views and argues that there is no any reason to waste so much money on renewable sources of energy and to intimidate next generations by terrible future. Among religious thinkers we also find both contradictory points of view, namely who believe and disbelieve in conception of global warming. The first could be presented by the National Association of Evangelicals and the second by the fundamentalists, for example, by Falwell who believes that some ecological problems were developed artificially for the sake of American economy were reduced.

We will finish our introduction by reference to the same book of A.N. Whitehead "The Function of Reason" in which he compares sciences to species. The figures and sums are weapons by which pointed contraries struggle for their lives. It seems like the next quotation being written in the context of "The Origin of Species" in its turn, could express the attitude of process philosophy to pointed disputes on ecological problems: "But certainly this struggle throws no light whatever upon the emergence of such a general type of complex organism, with faint survival power. This problem is not to be solved by any dogma, which is the product of mere abstract thought elaborating its notions of the fitness of things. The solution requires that thought pay full attention to the empirical evidence, and to the whole of that evidence".

1. Do We Think about Nature or about Our Future?

There are two main approaches to the nature. One is positive and the other negative. The positive views can be represented by consideration of nature as much more perfect entity than human being. Such a views can be ascribed to Pythagoras, Plato, B. Spinoza, V.F. Leibnitz, the Age of Enlightenment (J.-J. Rousseau, D. Diderot, F.-M.A. Voltaire and others), V.F.J. Schelling, Taoism. The negative point of view is characterized by the consideration of nature as less perfect entity than human being or God. This point of view is represented by such periods and schools and personalities as, stoicism, Mediaeval period, B. Pascal, German philosophy (I. Kant, G.V.F. Hegel, I.G. Fichte) Marxism, Positivism, Confucianism. Process philosophy does not admit such a division. In case when Plato convinced us that: "... we could say nothing about the nature of the Universe if we never saw the stars or crescent, or sky... from this source we have derived philosophy, than which no greater good ever was or ever will be given by the gods to mortal man... for the sake of rotations of the mind in the sky were observable by us so that we got the good for the rotations of our thinking"¹ (Plato, 2006, 429, *47a-b*) process philosophy does not distinguish the nature from the mind of man. Moreover, it doubts that sight is a source for the truth because we can see by means of our *understanding* of such and such spots and blemishes which meets our retina. Spots and blemishes can be recognizable by means of the meanings ascribed to them. But the very meanings are concepts. Here is a great difference: "... Direct experience is infallible. What you have experienced, you have experienced. But symbolism is very fallible in the sense that it may induce actions, feelings, emotions and beliefs about things which are mere notions..." (Whitehead, 1927, 6). The tower appears as a spot, but whether it round or with sides and angles are only our concepts (which are not always correct).

On the other hand there is a different point of view on the nature which, in its turn, could be represented by Blaise Pascal who eloquently argues in his "The *Pensées*": "Man is but a reed, the most feeble thing in nature; but he is a thinking reed. The entire universe need not arm itself to crush him. A vapour, a drop of water suffices to kill him. But, if the universe were to crush him, man would still be more noble than that which killed him, because he knows that he dies and the advantage which the universe has over him; the universe knows nothing of this"² (Pascal's *Pensées*, 1958, 97). There is not any possibility for strong distinction onto two classes of philosophers who would consider a man as a higher or a lower being in comparison to the nature. It is important to note here that philosophers have

¹ Translated from Russian by me.

² It is obvious that Pascal had different views on the nature of man: one nature constitutes greatness of a man and another one his misery. A man, by B. Pascal, has two natures: instinct and reason (Sec. VI).

distinguished external (experienced) and internal (moral) superiority of the man and nature. What could be learned from process point of view?

Philosophy of organism is essentially based upon principle of coherence and argues that there are no things and sheer facts but rather microscopic process (conrescence) due to which “many become one”. This principle (or category of Ultimate, strictly speaking) founds the view that all animals, plants, and other organisms are closely connected. So closely that bounds between organisms are blurred. There is even no sharp boundary between Earth and man: it disappears in the lungs of the last.

Alfred North Whitehead argues that there are not mere man and mere nature. He puts in his theory a general definition of the organism which represents two processes (microscopic and macroscopic). The categoreal structure of organism lies in the Category of Ultimate which expresses the multiplicity of the universe becoming one: “It lies in the nature of things that the many enter into complex unity” (Whitehead, 1978, 21). That entering of many into one is an “organic process” which describes an actual entity (Whitehead, 1978, 215). Actual entity (or occasion, here it is the same) is a building block of the universe.

Those notions of the processes and actual entities require more detail analysis. For the sake of brevity we will draw up some conclusions which are important for achieving the goal of our article:

- actual entity (like an organism) represents occasional character and includes temporal measurement (it appears, grows and ceases to exist) (Whitehead, 1927, 9; 35);
- actual entity is beyond Newtonian physics and its relation to other actual entities is similar to relations among organisms (one and one actual entity could be more or less than two).

PROCESSES³

MICROSCOPIC	MACROSCOPIC
the notion ‘One’	the notion ‘Many’
the ‘real’ which becomes ‘actual’	the ‘actual’ which becomes ‘real’
conrescence	transition
teleology	determinism

³ This classification can be found in the fundamental Whitehead’s work “Process and Reality” in chapters “The categoreal Scheme” (Sec. II) and “Process” (Sec. II and V).

future	past
aims	conditions for achieving a unity
subjective aim	subjective form
presentational immediacy	causal efficacy

These two processes cannot be separated from one another. Their unity postulated by the conception of creativity. ‘Creativity’ is the universal of universals “characterizing ultimate matter of fact” (Whitehead, 1978, 21). Here ‘one’ (eternal object) of the microscopic process throughout the creative advance unites ‘many’ of actual entities and this termed as creativity. Creativity is fraught with novelty. Novelty always introduced by creativity and in this way disjunctive universe obtains its content. “An actual occasion is a novel entity diverse from any entity in the ‘many’ which it unifies” (Whitehead, 1978, 21). It is impossible to survey the actual world except from the standpoint of an immediate concrescence for the concrescence falsify the presupposed completion. An actual entity (‘many’ in our table) is the only instance of concrescence (Whitehead, 1978, 211). Thus, so far as analysis requires separation and as far as the very meaning of that analysis lies in the unity of opposite notions we strike with controversy. But this controversy is result of our abstraction. The most difficulty which met many philosophers in the past is the same as presented by the very analysis above. Detail research probably would show us that this analysis is only overwhelming of the ‘many’ by ‘one’ (by the notions or eternal objects) which is bearing the function of unifying that ‘many’ (actual entities). That overwhelming is abstraction. Here arises an important question: How could that table was understood? The sole appeal is to intuition, says A.N. Whitehead (Whitehead, 1978, 22).

Thus, philosophy of organism does not admit division onto mere human and mere nature. An organism is neither less perfect nor superior over the nature. It is the very nature which “...repeats in microcosm what the universe is in macrocosm” (Whitehead, 1978, 215). So, if our analysis was accurate then it is incorrect to think that man should save the nature. It would probably be more fruitful to persuade the human that he should think about himself. If we try to find an appropriate argument for the reduction of pollution maybe we could find it in a reasonable focusing on the man, on the universe instead of imaginary landscapes. We *say* that we think about nature but we *think* about human being indeed. The problem is mere separation of human from the nature. But, accordingly the philosophy of organism that

separation is only abstraction. “The philosophic attempt takes every word, and every phrase, in the verbal expression of thought, and asks, What does it mean?” (Whitehead, 1938, 234).

2. Corporations and Philosophers

It is obvious that dialogue between environmentalists and skeptics (who doubt that climate change is really worth of changing in our technology, economy, policy) lies in symbolic reference. Philosophers and scientists appeal to the *facts* (experienced data) but give to governments and corporations a *statistics* (symbols). Could it be that the lack of argument arises somewhere there? Could it be that scientists and mighty persons speak different language, the same symbols by different meanings?

So far as process philosophy regards two processes and argue that actual entity repeats in microcosm what is in macrocosm we suppose that human society (both environmentalists and all those who run gigantic corporation) represent the same characteristics as pointed out processes and that ‘many’ which becomes ‘one’ has not particular place but global one. The Earth with its climate is an occasion too, as well as dialogue between environmentalists (persuasion) and corporations (power).

Corporations and environmentalists can be considered in the light of prism micro- and macroscopic processes. Their dominated characteristics are the next:

ENVIRONMENTALISTS	CORPORATIONS
deal with a science, or concepts ('one')	deal with a "raw material", immediate benefit ('many')
give a meaning and interpret (start from the 'real')	act (start from the 'actual')
oriented on the future (future, teleology)	grounded on experience and do not change their policy until something happens in the past (past, determinism)
society changes the order in itself (aims), and support a majority (environment)	society supports established order in itself (self-preservation) and act on environment (conditions for achieving unity)
society in which elements are coordinated and choose their policy freely (subjective aim)	society in which elements are subordinated and policy of subordinated elements conforms to higher ones (subjected form)
ideas, persuasion (presentational immediacy)	instincts, power (causal efficacy)

To be sure, here is not an absolute division. For us to find both micro- and macroscopic processes in any organization (as well as within some scientific society) is possible. But there is no actual entity without definite process of concrescence. There are no two contemporary occasions. Thus, our analysis seems like one among others but has a legitimate aspect.

This brief analysis can be organically augmented by the one thought of Russian novelist F.M. Dostoevsky: "... the crowd will never accept their special right (to choose their policy freely. – *D.Z.*) it executes and hang them (more or less) and thus totally carries out its conservative destination. But in the next generation the same crowd sets them in pedestal and holds sacred (more or less). First rank is

always a ruler of the present and the second is a ruler of the future. First rank (corporations in our analysis. – *D.Z.*) preserves the world and supplement it quantitatively. The second (environmentalists. – *D.Z.*) moves the world towards its aim. These two classes have an equal reason for their existence... vive la guerre eternellé⁴. Until the New Jerusalem of course” (Достоевский, 1970, 283).

3. A Dialogue from the Process Point of View

For us to consider the dialogue is a keynote in this paper. Two remarks are important here:

- corporations pursue the task of their own self-preservation, profit and growth. Their subjective aim is a power in deterministic sense (for example, to determine and subordinate behavior (action) of their lower elements);
- environmentalists do not depend on definite sources of their existence like do it corporations. So, they have great field for their freedom (not freedom of action but rather freedom of thinking);
- but in the very dialogue the last side (environmentalists) tend to bearing the role of the former one, namely to change and to control their behavior. It is seldom expressed in imperative judgments with statistics in addition. But do people hold a key position within structure of enterprise with fantastic income just for the listening to scholars? It would be better if they understand each other, but the stakes are too high.

Both processes act independently of each other. Microscopic process is conditioned by the subjective aim and macroscopic process is conditioned by the subjective forms. Thus, if analysis was accurate, corporations and environmentalists have different sources of their behavior. They are independent of one another.

But the life is only possible within interaction of these two contraries. Then, dialogue is strongly necessary. That dialogue must avoid imperative judgments (which are actual only for society with subordination, i.e. – for the corporations).

Dialogue can be effective only when two ranks will retain their natural states, their roles and try to speak in the language of each other: corporations should use logic and statistics; environmentalists should avoid abstract thought and imperative judgments but rather use aesthetical arguments (a good example is “BBC Earth (Series Producer Martha Holmes)”.

⁴ Hurray to eternal war! (- *French*).

4. Conclusion

Realizing of climate change presupposes changing technology which, in its turn, presupposes change centers of control. It is against the policy of corporations and they will undertake great measures for them to retain domination. The role of environmentalists is to inform. The role of corporations is to act or change. When the last foresees that the former tends to destroy its *corpus* then it refuses their arguments. Scholars consciously can inform that the “kettle” of the climate is too hot. But corporations will understand it *unconsciously* just when they will touch it and jerk their hand away. Societies like corporations react on actuality and not on potentiality (real). But some corporations are environment for the others and can be their subordinate elements (actual). Scholars should appeal to the more independent society than corporations, namely to the all people around the world and to their governments. The last is both actual for the corporations and real for scholars.

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**The Great Change of the Human Philosophical Ideas
Expedited by “Japan’ disaster”**

ZHANG Zailin (Xi’an Jiaotong University, China)

zzl@mail.xjtu.edu.cn

Abstract

The nuclear leak crisis caused by the earthquake in Japan is no longer a regional and national disaster , it suddenly went into a global disaster .The disaster is not so much a natural disaster as it is man-made disaster, and it is a more profound and deadly ecological crisis led by human beings of their own.

Therefore, when we reflect on the Japan’s disaster, it is also necessary to reflect the whole humans who pander to modern industrial civilization today.

It brought us something most important and fundamental that is the strategic thinking about the orientation and way of human survival and development—that is a real philosophical thinking. It makes us realize that the earth is becoming into "a giant planet factory" in the modern industrial technology civilization, it is consequently bound to the human "homeless". It seems not without funny and difficult to self-circle that people firmly believe the philosophy “technology first” and "everything becomes possible" in front of the Japan’s disaster.

It means that the modern industrial-type civilization has ushered its critical point and its transition and that human beings must add the new elements of thought into the modern civilization, and it implies a dialogue that the modern civilization as "monologue" returns to original pre-modern civilization to restore the ancient eastern wisdom ”heaven harmony ” in the reflection. A kind of "responsibility ethics" rather than "Ethics of Technology" and "ecological civilization" rather than "machine civilization "will be rebuilt in such a dialogue. Therefore, we look forward to a kind of new concept of civilization which has been reflected, more than a single value and is more compatible and vital.

The analysis of China Green Development Model

ZHAO Jianjun (China Community Party School, China)

Abad390@163.com

Abstract: with the development of human civilization, the crisis of ecology become more serious. How to deal with the conflict between the development and nature is the most important problem. The green development model which come from the green movement is our choice. This passage analysis the relationship between the developed country and human civilization and the history of green development model. The author point out the Chinese chacrater of the green development model . The author construct the theoretical system and give some advices to the china green development model. It will be the give some advise to the construction of ecological of china and the world.

Key words: Green Development Sustainable development Philosophy of Science andTechnology

With the development of the industrial civilization in the 20th century, human has the science and technology to create the great productive power and social fortune. So, science and technology have become the basic content and key lever for development of human civilization. The science and technology is also the power of urbanization. At the same time, due to the effects of the technological alienation, the environment pollution, the resource crisis, the breakdown of biologic variety have appeared and become more and more serious. Facing the severe environment problem gradually, the human begin to review the relationships between human, nature and society and want to find a good way by constructing the eco-civilization. The basement of the eco-civilization is the innovation of technology. The core of innovation of technology is the low-carbon technological paradigm. Starting from the combination of logic and history, this paper makes a deep analysis on the connotation and character of modern technological paradigm, discusses existing problems and dilemma of modern technology, analyses thoroughly and reveals deeply counter-ecology of modern technology and four kinds of drawbacks. This paper also make a further study on how the Chinese government deal with the challenge and opportunity of the low-carbon technology paradigm and the urbanization.

1 The emergency for China's Green Development

The traditional development strategies of industrialised countries all present two distinct features whether in developed and developing countries , despite their differing national and development conditions. One is that high-speed growth is sustained by high consumption of resources (especially non-renewable resources); the other is that the high-speed growth is stimulated by high consumption of

the means of subsistence. We call this a traditional development model. Most of development are on the cost of environment pollution. In view of China's conditions, it is impossible for China to realise modernisation by following the traditional model. When developed countries launched industrialisation, they took an active part in international trade and linked themselves with the world market, accumulating industrial capital and opening up the international market through war and colonisation. They relied on the two wheels of industrialisation and international trade to effect economic take-off. China, however, had endured a hundred years of suffering before opening its doors and by then the international market had long been divided up. Its export product mix, principally primary goods, puts it in a very unfavourable position. China's industrialisation has come very late for China and the initial level is low, with a large gap to bridge with industrialised countries in production technology, development and resource use. The most important thing for China is to get rid of poverty. Although it enjoys advantages as a later-comer, there are many obstacles. Because China should not afford the duty which is imposed by the developed contrary. The China's per capita resources were less than a fraction of those of developed countries. It cannot realise modernisation at the cost of high consumption of resources and the means of subsistence. China is a very populous country. How to deal with food and cloth of 1.6 billion people is the worldly problem so it is very difficulty for china to develop. It is impossible for China to realise past models of capital accumulation by waging war and plundering resources from other countries, as the industrialised economies did. It must rely on internal reform and development. The limitations of realising economic growth by following the traditional model are increasingly evident.

It is therefore imperative for China to follow a different development strategy. It is the key of socialism with Chinese characteristics. It should follow the non-traditional model best suited to Chinese national conditions, that is, it must establish a less resource-consuming production system and a living system with a proper level of consumption, an economic system with a sustained and stable growth and steadily rising economic efficiency, a social system that ensures social benefit and social equity, an applied technology system with constant innovation, fully absorbing new technologies, new processes and new methods, an international economic system that has close ties with the world market and a system with a rational development and utilisation of resources, that prevents pollution and protects the ecological balance. Deng Xiaoping said that "a cat is good, white or black, so long as it can catch mice", we meant that we can adopt whatever means to ensure economic growth and improve the living standards of the people. We called the industry civilization the black development model. Our development over the past 20 years is in fact "black development" or "black cat development," to be more specific. It is characterised by high capital input, low output efficiency, high resource consumption and high pollution. The low carbon economic is the worldly people's choice. It has sharpened the contradictions between population and resources and between development and environment. Now, the "colour of the civilization" has become important. We have to turn "black civilization" into "green

civilization”, shifting from black development to green development

2. China’s National Actions for Green Development

As the largest developing country in the world, China has upgraded the green development to the national strategic level and adopted series of state actions:

1990-2002 : Began to attach importance to climate change and participate in international efforts

Chinese government first sent delegation to the United Nations Framework Convention on Climate Change (UNFCCC) in 1990, and signed UNFCCC in 1992. China signed Kyoto Protocol in 1998 and ratified it in 2002. In the same year, China has integrated the climate issues into the general strategy of constructing “harmonious society and harmonious world” in the 16th CPC National Congress.

2006-2008: Promoting energy conservation and emission reduction. Green development was first proposed.

In March of 2006, the mandatory target to reduce energy consumption per unit of GDP by 20 percent has been set in the 11th five-year plan. At the end of the same year, Ministry of Science and Technology (MOST), China National Meteorological Administration, National Development and Reform Commission, State Environmental Protection Administration jointed publicized *National Assessment Report on Climate Change* for the first time.

In 2007, President Hu Jintao stated in APEC conference that China has decided to pursue the low-carbon economic development. China is one of the earliest developing countries to adopt and implement its own *National Climate Chang Program*. In this program, the mid-term GHG emission reduction target was set. Through developing new energy, 620 million ton of standard coal is estimated to be saved by the year 2012, equivalent to 1.5 billion ton of GHG emission reduction. This program also proposes several countermeasures to tackle climate change, including shifting economic growth pattern, adjusting economic structure and energy mix, controlling population growth and developing new energy and energy conservation technologies.

In October of 2008, a white paper entitled *China's Policies and Actions for Addressing Climate Change* was published, giving descriptions and introductions of impact of climate change on China and policies, actions, institutional constructions to address climate change issues.

Since 2009: Coping with climate change was listed into the main strategic issues for national socioeconomic development. China made official GHG emission reduction commitment.

In 2009, 2.1 trillion yuan out of the 4-trillion yuan government stimulus investment was devoted to energy conservation, emission reduction and environmental protection areas. To realize the target of 20% reduction in energy consumption per unit of GDP, priorities were given to nurturing low-carbon economic driving force and developing low-carbon industries, architecture and transportation system.

In May of the same year, Chinese government issued official document to implement Bali Roadmap, making clear China’s stance on this issue and its willingness and determination to push forward positive outcomes in the Copenhagen conference.

In September 2009, President Hu Jintao illustrated China's concrete measures to tackle climate change in the United Nations Summit on Climate Change. First, conserve energy and improve energy efficiency and endeavor to cut carbon dioxide emissions per unit of GDP by a notable margin by 2020 from the 2005 level; second, vigorously develop renewable energy and nuclear energy and endeavor to increase the share of non-fossil fuels in primary energy consumption to around 15 percent by 2020; Third, energetically increase forest carbon sink and endeavor to increase of forest coverage by 2020 by 40 million hectares and forest stock volume by 1.3 billion cubic meters by 2020 from the 2005 level; Fourth, step up efforts to develop green economy, low-carbon economy and circular economy and enhance research, development and dissemination of climate-friendly technologies.

On 25 November, 2009, Premier Wen Jiabao reiterated in the state council executive meeting the countermeasures put forward by President Hu Jintao in the United Nations Summit on Climate Change. Premier Wen also stated China's commitment to cutting carbon dioxide emissions per unit of GDP by a 40-45% by 2020 from the 2005 level. It was made clear that tackling climate change should be a major strategy for national economic and social progress. To achieve that, government should take series of measures including increasing input to low-carbon and no-carbon R&D and industries including energy conservation, energy efficiency improvement, clean coal, renewable energy, nuclear energy, carbon capture and restoration; encourage the development of low-carbon industries, buildings and transportation system; formulate supporting laws, regulations and standards improve fiscal, tax, pricing and financial policy measures; improve governance, formulate appropriate regulatory and implementing mechanisms. International cooperation should be strengthened to introduce, digest, and absorb advanced low-carbon and climate-friendly technologies and to strengthen climate change adaptation capacities. In addition, public awareness on climate change should be improved so as to nurture greener life style and consumption models.

On 9 March, 2010, China ratified the unbinding "Copenhagen Accord" reached in the United Nations Climate Conference in December, 2009. The agreement calls for 100 billion aid funds a year to developing countries to deal with climate change and sets targets to prevent Earth average temperature from rising more than two degrees Celsius above pre-industrial levels.

Laws and regulations are adopted as important control measures to cope with climate change. China has formulated and amended series of laws and regulations in this regard including *Energy Conservation Law*, *Renewable Energy Law*, *Laws on Promoting Circular Economy*, *Laws on Promoting Clean Production*, *Forest Law*, *Grassland Law*, *Regulation of Civil Building Energy Saving*.

3、the way of buliding the green civilization with Chinese characteristic

Ecological civilization is an ideal state as well as a realistic objective. Active effort to promote ecological civilization and harmony between man and nature is a historic duty of utmost importance bestowed upon environmental workers by the general situation of socioeconomic development. Directing towards the goal of promoting historic transformation of environmental protection, the idea harbors the

soul of the environmental protection cause at this new stage. We must assess, plan and solve evident environmental problems through the strategic thought and approaches of ecological civilization and feel a way out for sustainable economic growth at little cost of environment. That is to say, we should adhere to the guidance of ecological civilization while making energetic effort to explore a new path to environmental protection with Chinese characteristics.

First, China should the feasibility of a low-carbon economy as part of its endeavor to realize industrialization and urbanization, characterized by fast economic growth and high-energy demand. Meanwhile, the process is accompanied by various challenges, such as climate change, poverty alleviation and energy pinch etc. Therefore, the study of energy demand in this particular period should be the starting point toward the goal of a low-carbon economy.

Second, the concept, content and pathway of green development should be identified. Through green development, China would be able to readjust its present energy-intensive and high-emission model of economic growth. Given the current strained energy resources and deteriorated environment, China needs to develop its own model of energy expenditure and lifestyle in line with national circumstances, which is different from the old way of developed countries. The government could guide millions of Chinese to choose low-carbon consumption. Some economic development policies and strategies should be revised. The approach to a low-carbon economy should include improving city planning and design (low-carbon city) featuring high efficiency and low emission. Policy incentives should be initiated by local governments and financial support by the banking sector to drive technology innovation and capital flow and to popularize low-carbon know-how.

Third, the key for China to move to a green development is in the field of energy production and consumption, which requires a corresponding adjustment of national energy strategy. Developing low-carbon economy calls for changes in traditional energy strategy, which only focuses on meeting energy demand in terms of energy supply. With rising energy prices, the stable growth of China's economy would suffer more and more impact of international energy prices, which, in turn, will hamper energy conservation and emission reduction. So China's energy security should be redefined more comprehensively.

Fourth, more policy support is needed for China's future low-carbon economy. The essence of a low-carbon economy is energy efficiency and a low-carbon energy structure. A series of policies should be in line with the low-carbon development model needs to be drafted. The risks of energy scarcity, rising prices and environmental deterioration should be fully assessed and China needs to gradually reduce excessive dependence on the international energy market. Carrying out energy price fixing reform could be an important driving force in developing low-carbon economy.

Fifth, energy subsidy is an important component of macroeconomic policy of developing countries. It is sensible, sometimes essential, for developing countries to subsidize energy consumption in economic transition. While the impact on carbon emission by energy subsidy should not be underestimated or

ignored. China should reform its mode of energy subsidy and study the potential impact on national economy and environment, especially on low-income groups, if the energy subsidy is abolished.

Sixth, Complicated interests intension is being hidden behind environmental protection sports. As the industrial civilization steps into the predicament, the inevitable outcome that interests conflict and interests play chess between different subjects, but demand to set up the ecological civilization of surmounting the industrial civilization. While the ecological civilization is built, will produce new interests conflict and interests and play chess. The law, in order to solve the interests conflict and carry on the interests to play chess and fix the rule and procedure, is it include interests conflict and interests in the regulation and control of law to play chess. So, give full play to the role of law regulation and control while the ecological civilization is built, strengthen and perfect the ecological environment and rule by law constantly.

Seventh, The development of low-carbon economy needs to vigorously popularize ecological knowledge, enhance ecological awareness, establish ecological ethics, promote ecological civilization, and further form a concern for the environment, love a good habit of nature.

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**From Process to Generation:
Transformation and Establishment of Contemporary Educational View**

ZHU Chengke (Bohai University, China)

zhuchk70s@163.com

Abstract

As the result and representation of the Essentialism Philosophy, Pre-formation Concept of education has become crux of ideological problems in the development and reforms of education, which needs to be reviewed critically. Whitehead's Process Philosophy of education could provide important theoretical resources as we reflect on the Pre-formation Concept. The basic ideas of Process Philosophy, such as "process means reality", "process means relationships," "process means generation", would be of profound and practical value for us to re-understand and establish the new philosophy of education in accordance with modern spirits. In this new era, a changing from Process Philosophy to Generative Philosophy would be more feasible and effective in promoting the transformation of contemporary educational philosophy, so as to achieve the reflective thinking, normative and guiding function of educational theories. In the construction of educational theories, Generative Concept was reflected by the way of thinking that "from the poles to the intermediary," the standard of value that "from absolute to relative" and the construction principles that "create the necessary tension and continue to break the delicate balance".

Key word: Process, Generation, concept of modern education, the Pedagogy of Generative Theory

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