An Experimental Method for the Study of Time Perception at the Individual Level —with Reference to a Case Study in a Catholic Community Mani, Yucatan, Mexico—

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The aim of this paper is to present a concrete experimental method for the study of time perception at the individual level.

On the basis of exploratory discussion of analytical viewpoints and those hypotheses which the present author has ever proposed, three psychoanalytical models showed by Bin Kimura: ante festum consciousness, intra festum consciousness and post festum consciousness and myth and eschatological thought are discussed in terms of externalization or verbal expressions.

The present author deals with time perception at the individual level only in this paper. Consequently the focus is strictly limited to the study of representation of the past and the presentation of a concrete experimental method for the study of time perception at the individual level.

For further analysis of time perception at the individual level, it is a must to inquire more deeply into what Bin Kimura call intra festum consciousness, or 'an eternal life in this world • the everlasting re-presentation of present.' And the analysis of time perception at the collective level is to be presented in another paper.

Key Words: time perception, myth, eschatology, TAT, Catholic culture,

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I Introduction

The research findings to date by the present author’s studies of time and space concept can be summarized as follows:17

1. There are two different time concepts in religion; either of the two predominates over the other.

2. Religious people have a longer time perspective than less-religious people. Through the long-term repetition of rituals, the former has established a longer time perspective not only into the past but also into the future. What is more, this repetition includes two different time concepts so that the depth of time is greater in religious phenomena.

3. The above-mentioned continuous repetition of two different time concepts introduces a sort of self-realization which can be attained only by the dialectic denial of the existing self or the establishments.

4. An analysis of ‘ecological time’ which reflects relations with the environment and ‘structural time’ which reflects interactive relations in the social structure is absolutely indispensable to our study of time concept.

The aim of this paper is to describe an analytical working method for a close clarification of individual time perception.

II Expression (Ausdruck) and Understanding (Verstehen)

Saint Augustine (354-430), as has been already described,18 focuses on the re-presentation aspect of time in terms of the subject of time perception; the present of past (praesens de praeteritis), the present of present (praesens de praesentibus), and the present of future (praesens de futuris). From this standpoint, he takes the present of past as memory (memoria), the present of present as intuition (contitus), and the present of future as expectation (expectatia).

From his way of thinking, it follows that the past is not long but the memory of the past is long. The future is not long, but the expectation of the future is long. Hence “Time exists in the soul.” Time is not the object of perception but the subject of perception.

If we study time perception from this angle, expression (Ausdruck) and understanding (Verstehen) of the subject of time perception means a great deal to us. It is necessary to elucidate what is externalized out of individual internal world, that is, soul. Language and linguistic expression are socially integrated as a means of externalization of the subject’s perception of object.

Bin Kimura works out three time models of ante festum consciousness; intra festum consciousness, and post festum consciousness for the purpose of clarifying time perception.19

His approach to time perception is psychoanalytical and consequently time is analyzed from self-recognition (Kimura 1981 pp.108-109).

In ante festum consciousness ‘the unknown’ is dominant such as ‘the past unknown future’ ‘future as unknown’ and ‘the unknown future to come.’ In this case, ‘when they recollect their past, unrealized dreams in the past still exist as dreams.” and “time seems to stop for several years or several decades (Kimura 1981 p.109).” Hence ‘premonition of fate • priority of future • prior action oriented’ is a distinguishing feature of time.

Intra festum consciousness is ‘commitment to the present or the everlasting representation of present (Kimura 1981 p.159).’ The present of ‘now, here’ is more dominant here than the unknown future or the fact of existence. From this it follows that ‘a life of unbroken past-present-future stream is a greatest abhorrence’ and ‘no comparison between yesterday and today is necessary (Kimura 1981 p.153).’

Every moment or every day is important as the fount to produce the future and the past out of himself. The present means ‘a dimensional depth (Kimura 1981 p.159)’ in which not an eternal future but an eternal life in this world is perceived and suddenly time stands still.

In post festum consciousness, ‘the present perfect’ sense is the only proof of existence. ‘What has been so’ is accumulated and deep in the present so that future is not ‘the unknown future’ but ‘the known future or the long extension of the past’ (Kimura 1981 p.110). Time perception is ‘the present perfect • present-conservation • post-factum reflection (Kimura 1981 p.150).’
In contrast with Confucianism, Hindu culture develops the transmission from mouth to mouth (von Mund zu Mund) and memory (Gedächtnis) for their literarily expression in which oratorical skills (mündlich), recitation (Rezitation), and oral tradition (mündliche Uberlieferung) are highly cultivated. As a result, short sentences, verse forms, aphoristic expressions, repetitions, and numbers are frequently used for easy comprehension and ready reproducibility (Reproduktion) (Max Weber 1920 pp.162-163). Max Weber noted that grammar, drama, and theory of music (Musikwissenschaft) are necessarily developed in Hindu culture.

Nobukiyo Nomura focuses on the imperfect past in order to analyze time perception in a Catholic culture and society. His hypothesis is that a variety of past tenses in Spanish such as the perfect past, the imperfect past, the past perfect, and the indefinite past can have a greater affinity for Catholic past-oriented attitudes.

Masatake Takahashi interprets the imperfect past as follows: The imperfect past describes continuous actions or states, the customs, and repeated activities in the past. The imperfect past is called 'synchronic past' which describes the durative aspect of past. The imperfect past is used for the narrative and descriptive past.

III Time Concept in Myth (Mythe) and Eschatology (Eschatologie)

In the civil service examination in China, writing, stylistics and knowledge of classical literature (Schriftgebundenheit) are tested so that this art of writing oriented literatly expression does not develop speeches (Reden), court proceedings (Plädoyer), natural science, geography or grammar in classical Chinese education (Max Weber 1920 pp.408-417). The Confucian's word was a beautiful and polite gesture (Anstand) as an end in itself; the Puritan's word was an impersonal and businesslike communication, short and absolutely reliable: "Yea, yea; Nay, nay: for whatsoever is more than these cometh of evil (Ja, ja, nein, nein, was darüber ist, das ist vom Uebel.) (Max Weber 1920 p.531)"

Jun Miyake shows five types of time concept but for our study only three types are quoted here.

Miyake regards Mircha Eliade's hierophany as very significant for representation of past. Hierophany represents the cosmogonic myth in the ritual and realizes a rebirth by
representing the cosmogonic chaos in an anomic state of affairs. He argues that hierophany stops the present secular passage of time in order to revive the primordial cosmogonic time.\textsuperscript{12}

Miyake's analytical hypothesis that the ritual repetition of archetypes realizes cyclical rebirth to represent a real entity is discussed in 'The Effectiveness of Symbols' by Claude Levi-Strauss (Claude Levi-Strauss 1963).\textsuperscript{13}

Lévi-Strauss interprets the effectiveness of symbols in the myth as effective method for relieving the woman from her difficult delivery. The various symbols in the myth enable the woman to express the hard states caused by great pains and accept those pains or difficulties in her mind which her body refuses to endure. Lévi-Strauss notes that myths can recreate and represent real experiences.

In the Cuna, the Panama Republic, a difficult childbirth is believed to result when an evil spirit (Muu) captures the soul (parba) of the mother-to-be. For the purpose of facilitating difficult childbirths, the shaman undertakes a journey assisted by his guardian spirits to the abode of evil spirit (Muu), the power responsible for the formation of the fetus, in the supernatural world in order to recapture the woman's soul (parba) from Muu. Consequently, the myth expresses the quest for the lost soul (parba) of the mother-to-be, the overcoming of obstacles, a victory over wild beasts, a great contest waged by the shaman and his guardian spirits against evil spirits (Claude Lévi-Strauss 1963 p.206).

It is noteworthy that specific descriptions in the myth, as Lévi-Strauss emphasizes, correspond to each part ot each state of organ of the suffering woman’s body. For instance, Muu’s way literally represents the vagina and the abode of Muu corresponds to the uterus of the pregnant woman. Fantastic monsters and dangerous animals in the myth symbolize the uterine world of the sick woman. The shaman uses the myth to cure the sick woman whose attention to reality is diminishing and whose sensitivity is decreasing. He tries to induce the sick woman to relive the initial situation in a very precise and intense way, and to perceive psychologically its smallest details (à revivre de façon très précise et très intense une situation initiale, et à en apercevoir mentalement les moindres détails) (Claude Lévi-Strauss 1963 p.219).

Thus a transition from reality to myth, from ‘the physical universe to the physiological universe,’ from ‘the external world to the internal body,’ is produced by the shaman’s curing.

In the following stage, the myth the shaman uses for the cure oscillates more and more rapidly between mythical themes (thèmes mythiques) and physiological theme (thèmes physiologiques) so that the differentiation of their respective attributes comes to be abolished. The shaman proceeds to describe the physiological respective pains to the sick woman, name each of them, and present her in ‘a form accessible to conscious or unconscious thought (une forme qui puisse être appréhendée par la pensée consciente ou inconsciente).’ The shaman’s technique of narrative aims to make the sick woman identify the pains or states to which she is subjected.

For that purpose, entering the uterus or the great pains in the uterus are narrated and described by means of language of myth in which they are personified by Muu or wild beasts. Lévi-Strauss interprets this shamanistic cure as reconstruction of a real experience (restituer une expérience réelle) by means of which the sick woman is induced to be aware of the great pains in her body in ‘a form accessible to conscious or unconscious thought (Claude Lévi-Strauss 1963 pp.213-215).’

The shamanistic cure, calling upon myth, ‘makes a situation originally existing on the emotional (termes affectifs) level and renders acceptable (pensable) to the mind pains which body refuses to tolerate.’ The only necessary requirement for this is that ‘the sick woman believes in the myth and belongs to a society which believes in it.’ According to Lévi-Strauss, ‘the shaman provides the sick woman with a langage, by means of which unexpressed (états informulés), and otherwise inexpressible (autrement informulables), psychic states can be immediately expressed (s'exprimer immédiatement).’

The transition to this verbal expression (passage à cette expression verbale) provokes a real experience (provoquer une expérience) and recreates a myth which the sick woman has to live or relive (reconstituant un mythe que le malade doit vivre, ou revivre) (Claude Lévi-Strauss 1963 pp.217-220).

The verbal expression enables the sick woman to live the myth so that she can accept the existing states or transform them in order to conquer the great pains caused by the difficult birth. The shamanistic cure shows that the past exists in the form of continuous narrative and is lived or relived by representation (Claude Lévi-Strauss 1963 pp.217-220).

The analytical viewpoint of representation of past is, as Shigeru Matsumoto and Nobukiyo Nomura point out, the dominant thought in Norinaga Motoori\textsuperscript{14,15}.
Whoever determines on the ideal life he should follow has to study what it was like in the mythological age and learn whatever was established there in order to know the way things are. —In China they do not know what is most important for our ideal life was all established in the ancient times, for they are not obedient enough to respect the way of things in the good old days. —In the Japanese Empire nice and profound customs have been fully maintained so Japanese people follow whatever was established in the good old days instead of reforming them out of their own imprudent idea. —Whether or not a nation is ruled depends on it that the lower orders venerate the upper orders. ——(Tamakushige 14 p.94)

Norinaga Motoori argues that Everything in the world including seasonal transitions, natural phenomena such as rain and wind, fortunes or misfortunes in this world are the works of the gods (Naobinomitama p.96). There are good gods and bad gods existing in this world. Good gods do good acts and bad ones bad acts. Human knowledge can not work them out. (Naobinomitama p.96) Thus the ideal way they should follow in this world is to live 'as gods tell us to.'

The Japanese people should obey faithfully all the acts of gods instead of proposing plausible theories asserting their own opinion or idea (Isonokaminosasametoto p.97).

This way of living, according to Norinaga Motoori, leads to form the solid foundation of all the human relationships.

The upper orders should know all the ins and outs of the whole country, govern plenty of people, inspire respect in all people, and lead a happy life. The lower orders should afford food, clothing and shelter. All this is owed to the blessings of the emperor, the ancestors, and the parents which are all traced back to the blessings of the gods (Tamakatsuzuma 14 p.100)

Norinaga Motoori therefore concludes that the best way things should be in this world is to follow thoroughly whatever was established in the good old days instead of reforming them out of their own imprudent idea. Thus the time perception of presentation of past is distinctly found in Norinaga Motoori’s thought.

In connection with the presentation of past viewpoint, Miyake deals with Messianism. As Max Weber pointed out, the salvation by faith which is derived from the following exalted and intensive eschatological consciousness, is indispensable to our analysis of the time perception.

Moreover the word of the LORD came unto me, saying, Alas, thou son of man, thus saith the LORD GOD unto the land of Israel: An end, the end is come upon the four corners of the land. Now is the end come upon thee, and I will send mine anger upon thee, and will judge thee according to thy ways, and will recompense upon thee all thine abominations. And mine eye shall not spare thee, neither will I have pity: but I will recompense thy ways upon thee, and thine abominations shall be in the midst of thee: and ye shall know that I am the LORD. Thus saith the LORD GOD; An evil, an only evil, behold, is come. An end is come, the end is come: it watcheth for thee; behold, it is come. (Ezekiel 7. 1-6)

The prophets in Israel addressed curses, threats, personal invective, desperation, wrath and thirst for revenge (Unheilsdrohung) against the lords or priests. Though their predominant concern is demonstrated for the destiny of the state and the people in this world, it is professed for the coming end of the world in the light of the prophetic messages that ‘An end, the end is come upon the four corners of the land. Now is the end come upon thee, …… and ye shall know that I am the LORD (Ezekiel 7. 27).’

The prophets in Israel, in an emotional rage (ungeheure Leidenschaft), forecast the very coming of the day of Yahwe (Tag Yahwes) when ‘the misfortune would befall the people (or the sinners) and the salvation would come to the rest (Unheil für das Volk oder für die Sünder, Heil für den Rest) (Max Weber 1920 pp.339-340).’

The rage shows that their expectations of the coming ill fortunes give actualities to emotions and feelings to the people (Aktualität der Zukunftserwartungen). What the prophets predict for the future, fortune or misfortune, is to come ‘any moment and all of a sudden (jederzeit hereinbrechen) (Max Weber 1920 p.340).’ This thought leads the people to the indifference toward the world(utopistische Weltindifferenz) and the decline in a sense of reality (Unwirklichkeiten) which in turn provide them with the alternative to survive their real life in this world, that is hope (Hoffnung) (Max Weber 1920 pp.340-342).
Here the time perception is studied in terms of religious viewpoints of myth and eschatology. The findings mentioned above show that more and more data about the presentation of myth or eschatology should be collected for further concrete and exact analysis of time perception. The present author challenges to analyze the time perception not at the collective level but at the individual level in this paper. The analysis of time perception at the collective level is discussed separately in another paper. To analyze the time perception is to clarify in what way time is shared and participated by an individual.

IV An experimental method for the study of time perception at the individual level—with reference to a case study in a Catholic community Mani, Yucatan, Mexico—

The present author has continued socio-religious researches into the Catholic culture integration in a Catholic community Mani, Yucatan, Mexico since 1983. In the process of these researches, TAT methods using meaningful photos were carried out for various scientific purposes. In this paper only the following TAT method for the analysis of time perception at the individual level is shown in order to make tentative suggestions.\(^{10}\)

1 Photos

For our investigation, 4 semantic photos (Photo1, Photo2, Photo3, and Photo4) are used. Subjects are 93. In Mexico, Nobukiyo Nomura (1988), Erich Fromm (1970), and Oscar Lewis (1972) used this semantic photo method.

Ours is different from these preceding studies in that we do not include any depth psychological analyses. The references to Photos are applied to complement the data collected by other methods in our investigation.

2 Photos and Tentative Working Hypotheses

In Photo1 and Photo2 two people are put in a marked contrast to each other so that the subject can find it easy to respond them. For the experiment by means of Photo3 are selected, a man and a woman who seems to be under the burden of grief, sorrow or trouble. In Photo 4 are put a famous religious picture and Jesus Christ familiar to the people in Mani.

Each subject is presented every Photo (Photo1, Photo2, Photo3, and Photo4) separately and asked to tell whatever comes to his or her mind. The time limit is not set.

Photo1 is for a preliminary analysis of time perception of religious people in terms of the hypothesis that it is longer perspective in the past as well as in the future because of long-term repetition of rituals.

In this experiment case, our primary objective is to check in what span of time the subject describes the people in the photo or he makes a story out of them. For this purpose elderly people are selected for the photo and the outward appearances of the one stands out in sharp

![Photo 1a](image1)

![Photo 1b](image2)

![Photo 2a](image3)

![Photo 2b](image4)
contrast to those of the other. Our chief focuses are on the subject’s description of the past, the present, and the future in their responses to the photos.

In the experiment case of Photo2, our primary objective is to check in what span of time including historical viewpoints the subject in Mani describes the two people in the photo or he makes a story out of them. For that purpose, an outwardly European woman is put in the left photo and a Maya woman in the right one.

Photo3 is for a preliminary analysis of time perception of religious people in terms of the hypothesis that religion includes two different time concepts: either of the two predominates over the other.

In this experiment, our primary objective is to check in what span of time including all his life the subject in Mani describes ‘sorrow’ ‘trouble’ ‘tear’ by means of the two people in the photo or he makes a story out of them. Our hypothesis is that responses by religious people contain more affirmative attitude to them and that they are perceived in continuity, for instance ‘I am always in grief’ “Suffering is always with me” “I shall suffer all through my life”

The analysis and hypothesis in Photo4 is the same as those in Photo3.

In this experiment case, our primary objective is to check in what way the subject perceive the two different time and whether or not the subject emphasizes the importance of either of the two. Another objective is to scrutinize the representation of myth or eschatological way of thinking, concern toward this world and the next world, and time concept of eternity. In Mani where our researches have been continued for a long time, there is firm faith in Virgin Maria and Christ Child established all over, so a set of photos of them are presented.

An analysis of responses to Photo2, Photo3 and Photo4 is to be done from our working hypothesis that the long-term repetition of the two different time perception can be interpreted as a self-realization in the future. Our chief aim is to check with each subject to what extent and where in the responses are expressed their efforts at achieving what results from the contradiction to existing self or society.

V Conclusion

In this paper a concrete experimental method for the study of time perception at the individual level is presented on the basis of exploratory discussion of analytical viewpoints and those hypotheses which the present author has ever proposed.

Three psychoanalytical models showed by Bin Kimura: ante festum consciousness, intra festum consciousness and post festum consciousness are helpful to investigate the time
perception. His analytical perspective of time perception and self is to study in what way the subject perceives and concerns himself with what he was or what he will be. Respective time perception models are ‘premonition of fate • priority of future • prior action oriented’; ‘an eternal life in this world • the everlasting re-presentation of present’; ‘the present perfect • present-conservation • post-factum reflection.’

In connection with these three analytical models a theoretical problem is to clarify their externalization or verbal expressions. Hence the problem of expression (Ausdruck) and understanding (Verstehen) is to be solved. For the purpose of solving this problem, as Lévi-Strauss and Max Weber noted, myth and eschatological thought are indispensable.

Lévi-Strauss found that myths, which continues to exist only by being narrated (language) by the people or the society that believe in it, recreate a real experience (restituer une experience) and express immediately the states no other words can describe (s'exprimer immediatement; pensable; acceptable). Myths are lived or relived by a reconstruction of experience.

The sick woman suffering from difficult birth, by means of language of myth, lives or relives the myth she herself believes in so that she can make her great indescribable pains accessible to her mind, change herself into a new states in which she can conquer the pains. Thus the sick woman lives and relives the representation of the past.

The rage (ungeheure Leidenschaft) in the prophets shows that their expectations of the coming ill fortunes give actualities to emotions and feelings (Aktualität der Zukunftserwartungen) to the people. This thought leads the people to the indifference toward the world (utopistische Weltindifferenz) and the decline in a sense of reality (Unwirklichkeiten) which in turn provide them with the alternative to survive their real life in this world, that is hope. Max Weber found that the exalting and intensive eschatological way of thinking is represented to be lived and relived.

For further analysis of time perception at the individual level, it is a must to inquire more deeply into what Bin Kimura call intra festum consciousness, or ‘an eternal life in this world • the everlasting re-presentation of present.’

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