

**Charles University**

Faculty of Science

Department of Philosophy and History of Science



Mgr. Luděk Brouček

**The Paratactic Aggregate - Feyerabend's Pluralistic Philosophy**

Ph.D. thesis

Thesis supervisor: Prof. PhDr. Anna Hogenová, CSc.

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The text of the Ph.D. thesis represents an original piece of work created with use of literature cited.

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Mgr. Luděk Brouček

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## **ABSTRACT**

My dissertation project investigates Paul Feyerabend's later work, focusing on his epistemological and ontological positions. This thesis analyzes Feyerabend's later pluralistic philosophy and his view of historicity of knowledge from examples of the interpretation of the transition from archaic pre-rational epistemological framework to Greek and Western rationalism. The first part outlines Feyerabend's philosophical development along with his continuously changing philosophical views and offers an account of Feyerabend's critical reception among the philosophical community.

The second part focuses on Feyerabend's interpretation of archaic Greek thought. Feyerabend presents a pre-rational epistemological framework in his concept of "paratactic aggregate." Feyerabend's idea is based on an analysis of late geometric figurative art and on development of Snell's linguistic research in the scope of Homeric psychology. Feyerabend highlights this original archaic worldview and explains the rise of rationality in classical Greek philosophy and culture primarily as the result of a complex idiosyncratic socio-historical process and not as progress in the development of man's reasoning. The purpose of this part of my thesis is to demonstrate how Snell's and Feyerabend's interpretation of this archaic worldview further develops within Feyerabend's late philosophy.

The third part compares historicity in Feyerabend's late philosophy with the modern Japanese philosophy of Nishida Kitarō. Nishida Kitarō, as well as Feyerabend, perceives the world as a social and historical creative process. Human cognition and knowledge have the same features in such a world. The aim of this part is to explore these remarkable parallels between Nishida's and Feyerabend's thoughts on the field of ontology and epistemology and with their stance on the philosophy of science. Their basic assumption is that our world and our knowledge is a historical and creative process. This underlies the philosophical position of both thinkers and namely pertains to the incommensurability thesis and cultural, epistemological, and ontological pluralism.

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## INTRODUCTION

This thesis investigates the philosophical views and epistemological positions of the Austrian-born, 20<sup>th</sup> century philosopher of science, Paul Karl Feyerabend (1924 - 1994) and focuses on his later work. Since the early 1970s, Feyerabend moved from the position of science theoretician to a position of interpreter of the history of science. Feyerabend's philosophical framework of historicity of knowledge can be found mainly in his posthumously published work, *Conquest of Abundance* (1999) and *Naturphilosophie* (2009).

Feyerabend offers in his later work an interpretation of the specific features of Greek archaic culture, which according to Feyerabend refer to a structure of archaic epistemology and archaic science. Feyerabend introduced his concept of pre-rational reasoning of the world as a paratactic aggregate. According to Feyerabend, the "aggregate worldview" of archaic myth represents the open and dynamic form of reality, a reality which is constructed from relatively independent units. Feyerabend positions this description of reality in opposition to the "substantial worldview" of ancient and classical Greek philosophy (and to Western rationalism in general). The substantial world is described as a hierarchical arrangement of few substances, which are comprised of a more or less static and harmonious whole. The aim of this thesis is to investigate how Feyerabend's theory of knowledge as a paratactic aggregate was incorporated into Feyerabend's later philosophy, a philosophy which presents the world and our knowledge as a dynamic and creative process. Furthermore, this work attempts to find parallel features of approaching reality in Feyerabend's historical epistemological sense with the modern Japanese philosophy of Nishida Kitarō (1870-1945).

In order to discuss Feyerabend's later pluralistic philosophy, it is necessary to reflect on Feyerabend's philosophical development and to introduce his various philosophical positions. Was Feyerabend truly a philosopher? Does there exist any preconceived philosophical framework encapsulating Feyerabend's thoughts? It

seems that this is not the case. Although Feyerabend personally rejected the label of philosopher and claimed that he championed no specific philosophical outlook, he is widely regarded and criticized as an epistemological anarchist and post-modern relativist.

Throughout his life, Feyerabend received many diverse labels, some of which are incompatible and contradict one another. As Oberheim summarizes, during Feyerabend's career he was understood as both a positivist and post-modernist, a realist (or even super-realist) and anti-realist, as well as rationalist and relativist. He was also referred to as an „anarchosurrealist“ (Machan 1982); as a „methodological anarchist,“ „whose aim is such pleasure as brings forth nothing else“ (Hattiangadi (1978: 5); and even as Woody Allen's *Zelig* - the human chameleon without any philosophical commitment (Oberheim 2006: 24-26).

Aspects of Feyerabend's philosophy are understood and interpreted as Popperian (Preston 1997; Oberheim 2006; Collodell 2012), Wittgensteinian (Preston 1997), neo-Kantian and neo-Hegelian (Oberheim, Hoyningen-Huene 1997), Machian (Hentschel 1985; Zahar 1981), Nietzschean (Bearn 1986; Schnädelbach 1991), or Kierkegaardian (Naess 1999; Kidd 2010). Some see him as a modern proponent of Pyrrhonian scepticism (Bailey 1990; Neto 1991; Athanasopoulos, 1994; Kusch 2012), while others suggest that he was not unfamiliar with Sextus Empiricus (Neto 1991; Kadvany 1996).

Feyerabend called himself an epistemological anarchist (Feyerabend 1970) and a dadaist (Feyerabend 1975), which led some to charge him of irrationalism (Giedymin 1971; Grunfeld 1984). Some viewed him as a court jester or Zen master to the philosophy of science (Gellner 1975). To others Feyerabend was the “worst enemy of science (Theocharis; Psimopoulos 1987).“

Others celebrate Feyerabend as one of the most important philosophers of science from the second half of the 20<sup>th</sup> century and also as a 20<sup>th</sup> century champion of pluralism and tolerance. One of Feyerabend's successors, Professor Munévar, has

gone so far as to claim that chapters three and six of *Against Method* are among the most brilliant passages ever written in philosophical history (Munévar 2002).

Most of the previously stated labels, even those of which are in contradiction with each other hold some veracity, but none describe Feyerabend's philosophy completely. Feyerabend might have viewed himself as some kind of liberal rationalist and realist with respect to other forms of life. In essence, he was a pluralist and iconoclast fighting against all forms of monism and dogmatism. It is beyond question that he was one of the most dynamic philosophers of the 20<sup>th</sup> century (Oberheim 2006) and change is the most defining characteristic of his thoughts and philosophy.

With approaching Feyerabend's philosophy there are many other interpretative obstacles. All commentators have to deal with Feyerabend's rhetorical, provocative, and polemical style of writing. This style has made it difficult to separate his substantive positions, which Feyerabend defends from a provocatively sarcastic point of view and by making jokes. He often employs hidden *reductio ad absurdum* (or *ad hominem*) and *Modus Tollens* argumentation, making his arguments difficult to grasp and comprehend. For most of his philosophical positions (realism, incommensurability, proliferation, relativism), it is also possible to find in his work contradictory positions which refute his earlier positions. But Feyerabend claims to have a reason for doing so. According to Feyerabend, someone who wants to introduce new ideas must realize that all ideas can be misused unless they possess some inbuilt protection. Moreover, one must realize that a 'message' that helps in some circumstances may be deadly in others (Feyerabend 1991: 55). Feyerabend always claims that he does not want to replace one set of rules or principles with another set, or as he calls 'one monster by another monster.'

However, Feyerabend often complained about being misread and misunderstood and in effect he developed a theory about misinterpretation in philosophy called the 'Lessing effect.' In 1978 in section 3 of his book *Science in a Free Society*, Feyerabend

responded to reviewers of his book, *Against Method*, entitled "Conversation with Illiterates:"

"If an argument uses a premise, it does not follow that the author accepts the premise, claims to have a reason for it, regards it as plausible. He may deny the premise but still use it because his opponent accepts it and, accepting it can be led in a desired direction. If the premise is used to argue for a rule, or a fact, or a principle violently opposed by those holding it, then we speak of a *reductio ad absurdum* in the wider sense (Feyerabend 1978: 156).

Feyerabend's *reductio* take on the principles of a rationalist methodology for science. Consider what the same rationalists propose as a representative example of such a methodology at work in the history of science; they note that the decisions made on the basis of a rational methodology should, *ceteris paribus*, be rational and demonstrate that an account of this episode in such terms forces us to describe the actions of those purportedly following the rules as irrational or in violation of them (Newall 2005).

According to Munévar, Feyerabend was misread because *Against Method* attacked practically every major intuition about the scientific method that philosophers had held for the past three hundred years. Therefore, Feyerabend just had to be wrong and people wanted desperately for him to be wrong. Munévar appeals to philosophers that: "It should be an embarrassment to the profession that many reviewers were completely unable to see the structure of this simple *reductio*" (Munévar 1991: 181).

Feyerabend's philosophy of knowledge is often divided into two separate phases: an early rationalist phase and a later postmodern phase (Preston 1997; Oberheim, Heit 2009, Collodell 2012). The first phase being his espousal of the new wave of philosophy of science, while the second phase is associated with his first book, *Against Method* (1975) and his label as an epistemological anarchist and postmodern relativist. It may also be possible to categorize Feyerabend's philosophical development with another unique phase. This third phase is his later revision of

relativism and incommensurability thesis. On the other hand, Kuby stresses the continuity in Feyerabend's work and offers reconstruction of the change as a continuous and gradual emergence of Feyerabend's strong epistemic and ethical voluntarism (Kuby 2012).

A number of papers, editions, and also three comprehensive books on Feyerabend's work have been published in recent years. John Preston in *Feyerabend:Philosophy, Science and Society* (1997) critically analyzes Feyerabend's early work. Preston's foremost aim was to examine Popper's influence on Feyerabend's work, an association that Feyerabend vehemently denied. Robert Farrell who wrote *Feyerabend and Scientific values* (2003), defends Feyerabend's later relativistic philosophical positions. He also is critical of Preston's view and points out many misreadings, arguing that even his late work is a kind of rationalism. Moreover, Eric Oberheim's, *Feyerabend's Philosophy* (2006), examines Feyerabend's three main philosophical influences-Popper, Wittgenstein, and Heidegger-and then explores the idea of incommensurability. Oberheim defends Feyerabend's pluralistic philosophical methods, asserting that Feyerabend's foremost objective is an attack on conceptual conservatism.

The interpretation of Feyerabend's ideas and their relevance to ongoing debates within contemporary philosophy is still in progress. New material from Feyerabend has been published posthumously: *For and against Method*, the Lakatos-Feyerabend correspondence, edited by Matteo Motterlini (1999); Feyerabend's unfinished book *Conquest of Abundance*, edited by Bert Terpstra (1999); discovered work from the 1970s *Naturphilosophie*, edited by Eric Oberheim and Helmut Heit (2009); and Feyerabend's series of lectures from Italy from the 1990s, called *Conflict and Harmony* in a book entitled, *Tyranny of Science*, edited by Eric Oberheim (2012). Currently, Feyerabend's volume of papers, *Philosophy of Quantum Mechanics*, and a

volume of Feyerabend's correspondence with Thomas Kuhn, Karl Popper, and Niels Bohr is being prepared.

In 2012, two international conferences concerning Feyerabend's philosophical impact were undertaken: *Incommensurability 50* in Taipei and *Feyerabend 2012* in Berlin. Currently in the preparatory stages is a new edition with the title, *Reappraising Feyerabend* (2013), which reconsiders Feyerabend's place within the history of philosophy of science in light of new scholarship and themes from Feyerabend's neglected later works, including recently published material. Contributors are, for example, Ron Giere and Matthew Brown, who perceive Feyerabend's early philosophy as perspectival realism and his later thoughts comparable with that of Dewey's theory of inquiry (Brown 2009). Paul Churchland is further developing Feyerabend's eliminative materialism. Robert Farrell is pointing out processual realism in Feyerabend's philosophy. Stefano Gattei examines Feyerabend's influence in contemporary Italian relativistic philosophy; Martin Kusch work on Feyerabend's relativism, claiming that Feyerabend genuinely did not hold any relativistic positions; Ian James Kidd investigates Feyerabend's later ontological assertions. Helmut Heit and John Preston are focusing on Feyerabend's interpretation of pre-Socratics and his reconstruction of "the rise of Western rationalism."

## Part I. Development of Feyerabend's Philosophy

### 1.1. Feyerabend's Early Philosophy – Positivism, Nominalism, Realism

Although Feyerabend's plan before World War II was to study physics, mathematics, and astronomy, in 1947 he started to study history and sociology at the University of Vienna's "Institut für Österreichische Geschichtsforschung." Later, he went back to theoretical physics. At that time, Feyerabend recalls that he took a radical positivist-line. He stated that science is the basis of knowledge; science is empirical; and non-empirical enterprises are either illogical or nonsense (Feyerabend 1995: 68). Feyerabend was a student leader of an academic philosophy club whose name went by the chairman's, Viktor Kraft, „Kraft Circle.“ Kraft was a former member of the Vienna Circle and the only survivor of this movement who stayed in Vienna after World War II. The aim of these discussions, in accordance with Kraft's ideas, was the possibility to interpret science in a positivist manner and that interpretation does not require an external world. Feyerabend's teachers were three well-known physicists- Hans Thirring, Karl Przibram, and Walter Hollitscher. Hans Thirring was his Ph.D. supervisor. During this time, Feyerabend started working on the problem of classical electrodynamics, but struggled to solve it. He turned to Kraft and to Thirring who accepted this thesis not as physics proper, but rather in terms of the philosophy of science.

As a student, Feyerabend read various works of Wittgenstein's - *Remarks on the Foundation of Mathematics* and his *Philosophical Investigations* in manuscript form - before they were published and he discussed the content with British philosopher, Elizabeth Anscombe. Anscombe was at that time in Vienna learning German for her translation of Wittgenstein's work. Feyerabend also invited Wittgenstein to Kraft Circle.

In the early 1950s, Feyerabend published several German papers on Wittgenstein and became a nominalist. In 1952, Feyerabend rewrote the text of *Philosophical Investigation*. He turned the work into a kind of treatise using three different types of quotation: one enclosing Wittgenstein's own words; another enclosing further developments of his ideas; and a third style of enclosing critical remarks. This text, called *Wittgenstein's Philosophical Investigations*, was translated into English by E. Anscombe and published in *The Philosophical Review* (1955) and started Feyerabend's academic career.

Feyerabend regarded the focus of Wittgenstein's book as an attack on the philosophical theory of essentialism. Feyerabend believed Wittgenstein accomplished this using *reductio ad absurdum* argumentation. Essentialism is the idea that meanings exist independently of whether or not any language is used and also regardless of which language is used. Teaching a language involves denoting the connection between words and their meanings, while learning a language involves giving names to objects. Wittgenstein states that words only become meaningful as a part of a certain language game.

Wittgenstein inspired Feyerabend to develop his contextual theory; a theory which asserts that interpretations of observation sentences are determined exclusively by theories and not that the other way around. Preston and Oberheim here agree that the contextual theory of meaning does not represent Wittgenstein's intention, particularly in regard to his famous conclusion that "the meaning of words is its use in language."

Feyerabend maintained that there is a "clear and unambiguous" distinction between the pragmatic properties of a language and its semantic properties, and thus rejecting the idea that meaning is found in a word's use. In essence, Feyerabend believed that "meaning and applications are not the same things" (Feyerabend 1962: 57).

From Wittgenstein, Feyerabend also borrowed the idea that conceptual changes can motivate changes in experience. Like Wittgenstein, Feyerabend was also influenced

by Wolfgang Köhler's work on the psychology of perception, which is closely connected to the rise of Gestalt psychology. However, Feyerabend often criticized Wittgenstein and Wittgensteinians for their lack of historical perspective.

In the early 1950s, in response to Walter Hollitscher's assertion that "scientists achieve results that are accepted by everybody, including positivists, whereas if they had adopted an antiseptic language and strict logic they would never have gotten anywhere," (Feyerabend 1995: 72) Feyerabend developed his version of unorthodox scientific realism. Feyerabend believed that when theories are used to explain observed change, the interpretation of an observation language also changes. This idea was introduced in his doctoral thesis, *Zur Theorie der Basissätze* (1951). The focus of this work<sup>1</sup> is "protocol sentences," i.e., the kind of sentences that the Logical Positivists had theorised to comprise the foundation of scientific knowledge. Feyerabend discusses Niels Bohr's idea of complementarity in relation to classical physics (how to describe the content of principle of complementarity in classical terms). In effect, he compared positivistic and realistic interpretations of science. Feyerabend criticized instrumentalism<sup>2</sup> and Carnap's version of positivism<sup>3</sup>. According to the positivists' stand, interpretation of observation does not depend upon the status of our theoretical knowledge. Feyerabend called this the stability of theories and attacked it in his thesis *I*: "The interpretation of an observation language is determined by the theories which we use to explain what we observe, and it changes as soon as those theories change" (Feyerabend 1981: 31). Later, Feyerabend developed this idea into his notion of incommensurability.

Feyerabend claims that the issue between positivism and realism is an issue between two ideals of knowledge. According to Preston, Feyerabend championed a form of scientific realism which Popperians call 'conjectural realism' (Preston 1997: 61). Oberheim claims that Feyerabend adopted a form of normative realism. Normative

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<sup>1</sup> abbreviated version is under the title *An attempt at a realistic interpretation of experience* (1958)

<sup>2</sup>Theories are tools used for predicting, while they do not possess any descriptive meaning.

<sup>3</sup>Scientific theories do possess meaning, but their meaning is due to the connection with experience only.

realism asserts that scientific realism is unjustifiable as a description of scientific theories, but acceptable as an ideal on the grounds that it contributes to scientific advances (Oberheim 2006: 10).

According to Feyerabend's successor, Professor Hoyningen Huene, Feyerabend later adopted an anti-scientific realist approach. His notion of incommensurability was then subsequently developed within a neo-Kantian metaphysical position, according to which theories co-constitute the phenomena we experience. However, Feyerabend repeatedly rejected any form of transcendental necessity (Oberheim 2006: 11).

"Scientific theories are ways of looking at the world and their adoption affects our general beliefs and expectations, and thereby also our experiences and our conception of reality. We may even say that what is regarded as a 'nature' at a particular time is our own product in the sense that all the features ascribed to it have first been invented by us and then used for bringing order into our surroundings (Feyerabend 1981: 45).

Oberheim calls this position of Feyerabend's, "Kant on wheels." Also, Farrel correctly concludes that in opposition to the unhistorical, substantive realism, Feyerabend held the position of processual realism (Farrell 2003: 197).

## **1.2. Feyerabend and Popper**

All scholars who have worked on Feyerabend's philosophy agree that one of the foremost influences on Feyerabend's early philosophy was Karl Reimund Popper. Yet Feyerabend vehemently denied such an assertion, and therefore certainly cannot be regarded as a member of the "Popperian School." However, many critics are still in disagreement over the degree of Popper's influence on Feyerabend's work.

Preston claims that in order to understand Feyerabend's philosophy one must place him in the context of a possibly idiosyncratic, but nonetheless identifiable Popperian framework. According to this account, the Feyerabend of the fifties and sixties is

ultimately Popperian; while the Feyerabend of seventies and later, with his 'anarchism' and 'relativism,' is understandable in terms of a disappointed Popperian (Preston 1997: 39). Preston argues that Feyerabend borrowed from Popper even on proliferation, his anarchistic approach, and the thesis of incommensurability. Also, Feyerabend's work on Homer can be perceived as a critical reaction to Popper's interpretation of early Greek philosophy (Heit 2009: 90).

Oberheim agrees that Feyerabend's notion of an incommensurable concept should be considered to be a Popperian thesis, "because it was Popper in *The aim of science* (1957) who shows that some pairs of successive scientific theories are logically inconsistent whether inductive or deductive and cannot possibly make the step from Galileo's theory to Newton's" (Oberheim 2006: 79-80).

Feyerabend further employed Popper's example, arguing that Kepler's third law contradicts Newton's theory in precisely the same way as Galileo's. In order to establish deductive relations between Kepler's third law (the planets' orbits are perfect ovals) and Newton's theory, one has to make either one of two false assumptions: either the mass of the sun is equal to the mass of the planet, or the mass of the planet is zero. Otherwise, the two theories make quantitatively different claims about the orbits of planets around the sun. Popper has acknowledged Pierre Duhem (1906) as the source of this realization. This example of Oberheim's precedes Duhem's and additionally, Duhem repeated Whewell's point against Hegel's from 1860, where Hegel claims that the Newtonian formula may be derived from the Keplerian law (Oberheim 2009: 369). Feyerabend repeatedly asserts that he was directly influenced by Duhem. At the same time, Feyerabend was not always honest about his own work. Reprints often differed from the originally published text and Preston points out that the acknowledgements to Popper disappeared (Preston 1997).

### 1.3. Incommensurability Thesis

The thesis of incommensurability is probably the most famous of Feyerabend's doctrines. As it was noted before, the idea of incommensurability is implicitly already contained in Feyerabend's dissertation work, most notably in relation to quantum theory and classical physics. The term incommensurability was initially introduced in his paper, *Explanation Reduction, and Empiricism* (1962), as part of a criticism of Nagel's theory of reduction and the Hempel-Oppenheim theory of explanation.<sup>4</sup> Feyerabend argued that formal accounts of reduction and explanation are impossible for general theories.

"It is admitted that these two 'orthodox' accounts fairly adequately represent the relation between sentences of the 'All-ravens-are-black' type which abound in the more pedestrian parts of the scientific enterprise. But if the attempt is made to extend these accounts to such comprehensive structures of thought as the Aristotelian theory of motion, the impetus theory, Newton's celestial mechanics, Maxwell's electrodynamics, the theory of relativity, and the quantum theory, then complete failure is the result" (Feyerabend 1981: 44).

Feyerabend claims that when transitions are made from an earlier to a later, more encompassing theory, the new theory is not an incorporation of the unchanged earlier theory, but a replacement of ontology and changes in the meanings of even the most 'fundamental' terms (Feyerabend 1962: 45). This change of meaning is in contradiction with Nagel's theory of reduction and Hempel-Oppenheim's theory of explanation, because in these theories meanings of observational terms must be invariant with respect to the process of reduction and explanation. In the example of transition from Galilean physics to Newtonian physics, Feyerabend shows that these theories are logically inconsistent and therefore indeducible. The basic assumption of Galilean physics is that a free-falling body has a constant acceleration. In Newtonian physics, acceleration of a free-falling body increases during the fall due to the fact that the body approaches the center of attraction. Other examples which Feyerabend

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<sup>4</sup>Reduction is an explanatory relation between two theories; a deductive explanation of an event is a logical deduction of an 'explanandum' sentence, which asserts that an event happens from premises, the explanans' sentences, which are either general laws or statements of antecedent conditions.

also used to illustrate incommensurability of theories were the dynamic characterization of *impetus* in the impetus theory of motion and the concept of *force* in the conceptual apparatus of Newtonian mechanics; the concept of *temperature* and *entropy* in the transition from phenomenological thermodynamics to kinetic theory; and the concepts mass length and time in the transition from Newtonian to relativistic mechanics.

The main idea of using the notion incommensurability in Feyerabend's early philosophy is to attack logical empirism and strict insistence on its rules. According to Feyerabend, the theory of explanation and reduction ceases to be in accordance with actual scientific practice and a reasonable empirical basis.

Feyerabend also maintained that incommensurability occurs in some philosophical problems as a mind-body problem and problem of the existence of the external world. Feyerabend discusses the mind-body problem in his paper, *Materialism and Mind-Body Problem* (1963), where he also develops his idea of eliminative materialism. The materialism mentioned in this paper states that the only entities existing in the world are atoms and aggregates of atoms. Therefore, the only properties and relations are the properties of and the relations between such aggregates. Feyerabend defends this idea against the supposition that the mind cannot be a physical thing. Mind and mental phenomena are according to Feyerabend in conflict and incommensurable with scientific accounts and should be displaced. This idea was later developed by Paul and Patricia Churchland and Richard Rorty. Feyerabend himself did not continue with these ideas.

According to Oberheim, eliminative materialism can be understood as a form of radical behaviorism<sup>5</sup>. Preston also views these ideas as a radical and counter-intuitive version of materialism, which could in turn be understood as an application of Feyerabend's super-realism (Preston 1997: 154).

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<sup>5</sup>Scientific psychology should only be concerned with observable physical phenomena, such as a stimuli and response and not with unobservable mental processes and mechanisms (Oberheim 2006: 48).

According to Feyerabend, his idea of incommensurability in his early philosophy was not merely a philosophical thesis, but a summary of rather widespread scientific procedure, which stated that in the course of scientific advance, theoretical change causes meaningful change that leads to a new conception of reality. Feyerabend mainly used the idea against logical empirism where he attacked the principle of reduction and explanation. Feyerabend concludes that if this concept was enforced, it would hinder scientific progress.

#### **1.4. Feyerabend`s Turn - Epistemological Anarchism, Relativism**

Feyerabend`s later philosophical and political approach, which started in the mid-to-late 1960s in Berkeley - where Feyerabend ran into the Free Speech Movement - is regarded mainly as criticism of the superiority of Western culture, imperialism, and the excellence of Western science. He also encountered the “student revolution” during his time at Berkeley, as well as in London and Berlin.

In the late 1960s and early 1970s, Feyerabend started working on a cultural example of incommensurability, which covered the transition from „archaic Greece (9-6 century B.C.) to classical Greece (6 – 4 century B.C.);“ he also refers to this transition as that from the aggregate world to the substantial world and described it as a rise of Western rationalism, which is according to him one of the most interesting episodes in human history. Although Feyerabend`s topics of interest often changed, he developed this idea over the span of thirty years. This view is a central point of his recently discovered book, *Naturphilosophie* (2009). *Naturphilosophie* was written in the late 1960s and early 1970s and at the same time as Feyerabend`s opus magnum, *Against Method* (1975). *Against Method* was initially intended to be a dialogue between Feyerabend and his best friend, philosopher of science and Popperian, Imre Lakatos, and was going to take shape from their long series of letters and discussions. Their plan was that Feyerabend would attack positions of scientific rationalism, while

Lakatos should defend these positions. Their opposing essays were intended to appear as a single volume entitled, *For and Against Method*. But when Lakatos died unexpectedly in 1974, Feyerabend was already contracted to produce the book. Feyerabend was forced to publish his material without Lakatos's reply, so that is how the name and structure of the book now appears.

"AM is not a book, it is a collage. It contains descriptions, analyses, arguments that I had published, in almost the same words, ten, fifteen, even, even twenty years earlier" (Feyerabend 1995: 139)

*Against Method* became very popular beyond the philosophy of science, but the treatise received a devastating critique within the philosophy of science community. For example, an assistant of Sir K. Popper, Joseph Aggassi, accused Feyerabend of extolling lies, conning his readers, cheating in his interpretation of Galileo, playing the clown, idolizing totalitarian China, surreptitiously justifying Nazism, producing 'hate blasts', and violence and vulgarity (Aggassi 1976). Because of this and many similar reviews, Feyerabend suffered from depression and for the next two years only tried to reply to most of the book's major reviews. Preston calls *Against Method*, 'The Stinkbomb' and Feyerabend wrote in his biography, "I wish I would never write this fucking book" (Feyerabend 1995: 147).

"Anything goes" became Feyerabend's trademark. He even used it in *Against Method*, although only once at the end of the first chapter and in an ironic manner. To his critics, this phrase had an effect comparable to a bull and red cloth. The paragraph reads:

"It is clear, then, that the idea of a fixed method, or of a fixed theory of rationality, rest on too naive a view of man and his social surroundings. To those who look at rich material provided by history, and who are not intent on impoverishing it in order to please their lower instincts, their craving for intellectual security in the form of clarity, precision, 'objectivity', 'truth', it will become clear that there is only one principle that can be defended under all circumstances and in all stage of human development. It is the principle: *anything goes*" (Feyerabend 1975: 19).

In a preface to the third edition of *Against Method*, Feyerabend explicitly declares that "anything goes" is not a principle, but the terrified exclamation of a rationalist who takes a closer look at history.

The central objective of *Against Method* is to introduce the state of epistemological anarchism (which was often misread as political anarchism) and pluralistic methodology. In chapter 2, Feyerabend claims that the one thing the epistemological anarchist opposes positively and absolutely are universal standards, universal laws, and universal ideas, such as 'Truth,' 'Reason,' 'Justice,' 'Love' and the behavior that goes along with them (Feyerabend 1993: 32). Feyerabend attacked ahistorical, unchangeable, rationalistic rules, and methodological monism and the widespread assumption that science is special because of its unique method. He claimed that there is no such scientific method and no unifying principle of science. His intention was to convince the reader that all methodologies, even the most obvious ones, have their limits. Feyerabend's conception of science is a heterogeneous collection of disparate paradigms, ideas, and practice.

Feyerabend introduced pluralistic methodology in *Against Method* with the principle of proliferation. Feyerabend encapsulates this idea in the controversial misquotation, "Let a thousand flowers bloom." The principle of proliferation not only recommends the invention of new alternatives, but it also prevents the elimination of older theories which have been refuted (Feyerabend 1993: 34).

"The consistency condition which demands that new hypotheses agree with accepted theories is unreasonable because it preserves the older theory, and not the better theory. Hypotheses contradicting well-confirmed theories give us evidence that cannot be obtained in any other way. Proliferation of theories is beneficial for science, while uniformity impairs its critical power. Uniformity also endangers the free development of the individual". (Feyerabend 1993: 5)

Pluralism appears also in Feyerabend's early philosophy, but at this point it started to be the main core of Feyerabend's philosophy. Feyerabend saw its important role also for ethical and humanitarian philosophy. Feyerabend acknowledges in many places

J.S. Mill's, *On Liberty*, as a main source of his inspiration on the proliferation thesis. Preston maintained that Feyerabend owes this idea to Popper (Feyerabend 1997: 134).

Nevertheless, Feyerabend is viewed and interpreted mainly as a proponent of relativism, which in the second half of the 20<sup>th</sup> century has become an integral aspect of philosophy, social science, and everyday thought. He was actually accused of being a relativist a number of years before he actually converted to it (Preston 1997: 193); Feyerabend discussed relativism in 1977 in his paper, *Rationalism, Relativism and Scientific Method*. In *Against Method*, Feyerabend claims that there is not one science, but rather many. In *Rationalism, Relativism and Scientific Method*, he used this same presumption for rationalism, making distinctions between naïve and sophisticated versions of cosmological, institutional, and normative rationalism. According to Feyerabend, to choose from them the one which we prefer is relativism (Preston 1997: 193).

"Rationalists act like frightened children. 'What shall we do?', 'How shall we choose?', they cry when presented with a set of alternatives assuming that the choice is not their own, but must be decided by standards that are (a) explicit and (b) not themselves subjected to a choice. Relativism, however, brings choice into everything - hence the aversion." (Feyerabend 1977: 16 cited in Preston 1997: 194)

Preston regards the act of choice in this account of Feyerabend's relativism as an extreme form of voluntarism (Preston 1997: 195). Feyerabend's radical relativistic period and radical version of incommensurability is best articulated in his book called, *Science in Free Society* (1978). In this work he claims that with incommensurability it is impossible to assume that two incommensurable theories deal with one and the same objective state of affairs. They do not both refer to the same situation; instead they deal with different worlds. The change (from one world to another) has been brought about by a switch from one theory to another (Feyerabend 1978: 70).

In this book, Feyerabend changed his view on the proliferation thesis, because it also should not be understood as a rule. Feyerabend no longer urges everyone to "think,

feel, live through a competition of alternatives" (Feyerabend 1978: 144). Rather he states that: "I do not show that proliferation *should be used*, I only show that the rationalist can not *exclude it*" (Feyerabend 1978:145).

Feyerabend's political relativism which is presented in his book, *Science in Free Society*, claims that in a free society all traditions have equal rights. The mere fact that some people have arranged their lives in accordance with a certain tradition suffices to provide this tradition of theirs with all the basic rights of the society in which it occurs (Feyerabend 1978: 82).

Feyerabend concludes that there should be a separation of science and state, just as there is a separation of church and state. He believed this because: (1) science is only one of many traditions or ideologies; (2) a free society is one in which there is equality among traditions or ideologies; and (3) society's preferred treatment of science in education, medicine, and so on (making it the "fabric of democracy") violates the rights of other traditions (Feyerabend 1978: 31). Feyerabend further have noted how modern natural science has become a full-on secular religion (Komárek 2009, 133)

*Science in Free Society* is regarded mainly as a criticism of the superiority of Western culture, imperialism, and the excellence of Western science, but it is also a critical take on Popper's critical rationalism. According to Feyerabend, Popper's philosophy forms a totality. Feyerabend describes two different methods of collectively answering an issue, which he calls guided exchange and open exchange respectively. A rational debate (including critical rationalism) is a special case of the guided debate that is not entirely free; one has to play the game of intellectuals. Feyerabend was later like with *Against Methods*, very unsatisfied with *Science in Free Society*, but unlike *Against Methods* he did not write a second or third edition . Feyerabend had no desire to edit *Science in Free Society*.

In his next book, called *Farewell to Reason* (1987), a collection of papers from the mid 1980s, Feyerabend further developed his form of cultural relativism although he was never close to a pure form of relativism. "I confess to be a fervent relativist in some sense, I am certainly not relativist in others" (Munévar 1991: 507). Both relativism and objectivism are chimeras or "cantankerous twins" (Feyerabend 1993: 268). In *Farewell to Reason*, Feyerabend distinguishes between naive and sophisticated versions of relativism and agrees with a form of relativism that has been defended by Protagoras and Herodotus, which Feyerabend calls democratic relativism.

"Protagoras relativism is *reasonable* because it pays attention to the pluralism of traditions and values. And it is *civilised* for it does not assume that one's own village and the strange customs it contains are the navel of the world" (Feyerabend 1978: 27).

Feyerabend obviously followed Protagorean sofism also in argumentation style in the sense that good arguments can be found for the opposing side of any issue. On the other hand, as Kusch states, *Farewell to Reason* should not be taken as an endorsement of Protagoras' position. It reads Protagoras as infallible, not as a (ordinary) relativist. For Kusch, Feyerabend's epistemic relativism is ancient skepticism and the arguments in and for epistemic relativism is all ad hominem against objectivism (Kusch 2012).

## **1.5. Feyerabend's Later Philosophy – Ontological Pluralism**

In the early 1990s, Feyerabend altered his attitudes towards the radical interpretation of incommensurability and cultural and traditional relativism. He explains this transformation in his next book, *Three Dialog about Knowledge* (1991). Feyerabend confesses, "In 1970 when I wrote the first version of *Against Method* the world was different from what it is now and I was different from what I am now, not only intellectually but also emotionally..." (Feyerabend 1991: 129). Further Feyerabend states: "Today I regard it as very mistaken to explain misunderstandings

between cultures or special groups by reference to incommensurability; the situation is much simpler - for example: people don't read what is in front of them"(Munévar 1991: 527). He also stated that it is no longer fun being a relativist, especially when relativistic slogans can be found in every university toilet (Munévar 1991: 521).

Feyerabend at that time emphasized that culture and ways of life lack the stability and the exclusiveness of the relativistic domain, because traditional relativism assumes that cultures are "closed" and well-defined. But this is not how cultures react. Cultures change because they react to new situations and solve new problems. In the preface to the second edition of *Farewell to Reason* and in many other places, Feyerabend states that "Every culture is potentially all cultures" and that "special cultural features are changeable manifestation of a single human nature" (Feyerabend 1995: 152). As Collodel notices „potentially every culture is all cultures“ comes originally from Gadamer and Collodel further concludes that Feyerabend abandoned his early idea of incommensurability intended as a logico-linguistic notion and adopted (or returned to) a hermeneutic-ontological formulation, which is ultimately and essentially anti-relativistic (Collodel 2011). The incommensurability thesis in *Farewell to Reason* lost its previous radicality and Feyerabend states like in his early period that "incommensurability is no difficulty for the science...it is a difficulty for some very naïve philosophical theories and, as these theories were regarded as essential ingredients of a certain type of 'rationality' for this type as well" (Feyerabend 1991: 154).

Feyerabend in his last unfinished posthumous book, *Conquest of Abundance* (1999), which contains papers written in the early 1990s, attempts to develop a position of "ontological pluralism." Feyerabend claims that scientists are sculptors of reality, but sculptors who are restricted by the properties of the materials they use. It is then implied that not all approaches to reality are successful. Reality must react in a positive way<sup>6</sup> (Feyerabend 1999: 215). Feyerabend explains a particular scientific

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<sup>6</sup>This idea is not completely new in Feyerabend's philosophy (see Feyerabend 1962, 1984).

research program in two possible ways; the first way: the procedures (experiment, models, ideas, etc.) that are part of the program and that strongly interfere with nature reveal how nature is independent of the interference; the second way: they reveal how nature responds to the interference.

Feyerabend supports the second way mentioned above ( Feyerabend 1999: 239).

"World as described by scientists is the result of a complex exchange between Nature as She Is In and For Herself - and this lady we shall never know - and inquisitive research teams including, possibly, the whole subculture that supports them" (Feyerabend 1999: 239).

Kidd provides for such views of Feyerabend (inspired by Pseudo-Dionysius the Areopagite) a doctrine of ineffability, which is a means of „safeguarding epistemic pluralism by preventing our illegitimately establishing one ‘conception of reality’ with reality itself“ (Kidd 2011: 7). Later, Feyerabend’s idea may also sound like a program of social constructivism. Feyerabend is indeed often perceived to have been a founding force of the social constructivism movement (Preston 1997; Oberheim 2006), even though Feyerabend never wanted to be a part of any philosophical movement. Feyerabend’s philosophy is also supported by several scientists. For example, physicist, Svozil claims that any interpretation of raw data inevitably introduces theoretical constructions which are in no direct correspondence to the empirical basis and may change as times and fashions go by. Svozil also presents new examples of incommensurability in physics (Svozil 2004).

## **1.6. Conclusion**

Feyerabend could be seen as a philosopher who changes his position every decade, but he could also be perceived as repeatedly redeveloping his view and circulation

around the same topic; this is not a trivial issue when it comes to attempting a realistic interpretation of our experience. Feyerabend during his career permanently challenged orthodox rationalists' positions and criticized all forms of monism. Singularism was always replaced by its plural form. Feyerabend introduced his contextual theory of interpretation. This idea and its consequences are still discussed within present-day philosophy of science. Nevertheless, Feyerabend seems to be right about his comment about the philosophy of science of the 20<sup>th</sup> century, a philosophy which tried to find some general theory and methodology within science. He said that this is a subject with a great past, but no future. The present picture of the philosophy of science looks increasingly specialized and splintered without ambitions to provide any all-embracing methodological principles.

## Part II. 'The World as a Paratactic Aggregate' - Feyerabend's Interpretation of the Archaic Age

The work of Paul K. Feyerabend receives attention mainly in the fields of the philosophy of science, philosophy, and history of quantum mechanics. Feyerabend is also a very influential figure in the field of sociology of scientific knowledge. But Feyerabend's comparative philosophy and later thoughts in general, which present him as a great scholar and very interesting interpreter and historian of Greek philosophy, receive hardly any philosophical reflection. The relationship between myth, philosophy, and science is described in many papers and books written in Feyerabend's later philosophical stage.<sup>7</sup> Feyerabend's lifelong interest was to interpret myth as a fully developed worldview and to introduce an example of a paradigm shift from myth to philosophy. Feyerabend further argues that scientific, mythical, and religious doctrines share many common features and that this refutes naive empiricist accounts, according to which science started when people stopped speculating and started observing or experimenting" (Feyerabend 1999: 59).

„Myth, Philosophy, Science - are neither strictly detached nor they are found always in this order. The Myth anticipate the science, the science has a mythical features, Philosophy, Science and Myth once friendly live with each other, once they deny each other the right for existence. Superstitions and prejudices can be found everywhere" (Feyerabend 2009: 41, author's transl.).

This part focuses mainly on Feyerabend's book, *Naturphilosophie* (2009), which represents Feyerabend's recently discovered unfinished project of initially three volumes covering the history of the philosophy of nature from the Paleolithic until the 20<sup>th</sup> century. Feyerabend worked on this manuscript from the late 1960s to the early 1970s, at the same period of time as his notoriously famous work, *Against*

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<sup>7</sup>*Knowledge without Foundation* (1961); *On the Improvement of the Sciences and the Arts, and Possible Identity of the Two* (1967); *Against Method* (1975); *Let's Make More Movies* (1975); *Rationalism, relativism and scientific method* (1977); *Science in a Free Society* (1978); *Wissenschaft als Kunst* (1984); *Farewell to Reason* (1987); *Three Dialogues on Knowledge* (1991); *Conquest of Abundance: A Tale of Abstraction Versus the Richness of Being* (1999); *Naturphilosophie* (2009); and *The Tyranny of science* (2011).

*Method* (1975). *Naturphilosophie* introduces Feyerabend's radical change in his work and is consequently perceived as a missing link between Feyerabend's two separate stages – theoretician of science and historian of science (Heit, Oberheim ed. note in Feyerabend 2009: 8).

*Naturphilosophie* demonstrates two of Feyerabend's foremost aims. Firstly, it illustrates criticism of the predominant view of anthropological theories of the 19<sup>th</sup> and 20<sup>th</sup> century that places superior Western rationalism above other cultures, theories, and forms of life. Secondly, it presents Feyerabend's attempt to introduce a historical example of his presumption that conceptual changes of two worldviews affects our language and thought processes and even bring perceptual changes of our external world. According to Feyerabend, evidence of the latter point can be seen in the transition from archaic Greece (8-6<sup>th</sup> century B.C.) to classical Greece (5-4<sup>th</sup> century B.C.).

While analyzing the transition from an earlier to a later wider theory or cosmology, Feyerabend often employs hidden *reductio ad absurdum* argumentation. On the other hand, Feyerabend developed the interpretation of this archaic pre-rational epistemological framework over a thirty year time span and this topic receives significant attention in his later work. Feyerabend basically adapts his interpretation of archaic thought structure to his later philosophy. The structure of paratactic aggregate influences apart from methodology and epistemology, Feyerabend's later ontological states as well. In his last and unfinished work entitled characteristically, *Conquest of Abundance* (1995), Feyerabend's ontology represents a dynamic and multi-faceted Being, which influences and reflects the activity of its explorers.

“It was once full of Gods; it then became a drab material world; and it can be changed again, if its inhabitants have the determination, the intelligence, and the heart to take the necessary steps.” (Feyerabend 1999: 146)

## 2.1. Feyerabend's Interpretation of Archaic Knowledge of Nature

Feyerabend starts his history of the philosophy of nature with an interpretation of Paleolithic knowledge. Feyerabend assumes that starting from the Upper Paleolithic, there already existed fully-developed *Homo sapiens* who exhibit equal intellectual and mental abilities like we have today. The man of the Stone Age or Bronze Age is according to Feyerabend, a man of modern type and not primitive or in a childish stage of human development as is usually stated in most previous theories. For Feyerabend, it is doubtless that archaic man possessed detailed factual knowledge in many fields of nature, such as astronomy, mathematics, botany, zoology, biology, medicine, sociology, and theology.

Feyerabend's interpretation of Paleolithic art argues against religious or fertility enhancing explanations of that time (see Breuil 1952; Leroi-Gourham 1964; Marshack 1972). Feyerabend claims that the attention of researchers should be aimed at evidence about the knowledge of the nature of Paleolithic man; that the scientific community should take it seriously without prejudices; and that various scientific disciplines should focus on the description of this knowledge.

Feyerabend's view corresponds with the present approach and interpretations in paleo-archaeology, which show that it has become increasingly apparent that the Upper Paleolithic was a period of almost constant technological change, not unlike the last 12,000 years (Hoffecker 2005).

"Peoples of the Upper Paleolithic invented sewn clothing, portable lamps, and watercraft. They also designed heated shelters, fishing equipment, baking ovens, refrigerated storage pits, and artificial memory systems. Upper Paleolithic folk used rotary drills, shaped musical instruments, mixed chemical compounds, and constructed kilns to fire ceramics. They were the first to create mechanical devices, including spear-throwers and bows and arrows, and to domesticate another living species" (Hoffecker 2005).

Even the contemporary interpretation of Paleolithic cave art supports Feyerabend's effort. For example, Professor Guthrie in his monumental volume, *The Nature of*

*Paleolithic Art* (2005), found that people of all ages and both sexes were making art, not just senior male shamans. The cave painting was largely produced by adolescent males and is somewhat akin to modern teen graffiti. Their art seems, according to Guthrie, more focused on complicated earth-bound subjects, diverse everyday interests, and wonders. Guthrie describes Paleolithic artist-hunters as keen students of natural history, in close touch with the details of a complex earth and addictive watchers of large mammals. Guthrie, as a zoologist asserts that from fossils and living animals we know that the artists were drawing the literal truth when he states, "Reindeer cows are antlered now and were 30,000 years ago" (Guthrie 2005: 16). Furthermore, Guthrie claims that these images record informative details about the nature of mortal wounds made by Paleolithic weapons, because they are most effective if penetrated deeply into a large mammal's thorax.

"Many images disclose the artists' keen awareness of the efficacy of thoracic shots and the risk to the hunter from wounded animals after improper spear hits. This kind of knowledge continues after the Pleistocene into Holocene times. For example we have physical evidence from Mesolithic (the period directly following the late Paleolithic), in the form of projectile point pieces embedded in bone and indications of point impacts on bone, that Mesolithic people also actively aimed for the thorax " (Guthrie 2005: 241).

Astronomical knowledge during the Paleolithic is demonstrated, for example by a luni-solar calendar on Thais bone (Marshack 1972) or representations of the Pleiades and Hyades in cave art at the Hall of the Bulls at Lascaux Cave in France (Rappenglück 2004). Feyerabend's interpretation of prehistoric artifacts, art, and mythologies follows mainly an astronomical scope mainly because of his lifelong interest in astronomy. Feyerabend is convinced that there existed a highly developed and global astronomy during the beginning of the Stone Age. Astronomical knowledge is expressed in sagas, legends, and myths in sociological, rather than in mathematical terms and is often unrecognized because of insufficient astronomical knowledge of myth collectors, translators, and interpreters (Feyerabend 2009: 76-77). In spite of modern astronomy, Feyerabend believes that ancient astronomy was factually adequate as well as emotionally satisfying, because it solved both physical and social

problems and it was tested in very simple and ingenious ways (i.e., stone observatories in England or in the South Pacific) (Feyerabend 2009: 77). For Feyerabend, astronomical and other archaeological heritage, art, and myths points to the characteristic feature of archaic man's worldview, which has a dynamic structure with a focus on natural processes and changes (Feyerabend 2009: 71-81).

## **2.2. The Structure and Function of Myth**

A myth is a story that manifests some aspect of the cosmic order and provides a worldview or vision of the basic structure of reality. The original meaning of this term does not imply a false story, which is how this word is often colloquially misused. The interpretation of myth as a fable began already with some rationalists of the classical Greek period and continued in this sense through Roman, Christian, Enlightenment, and Positivist interpreters. Contemporary religious and anthropological interpreters present the function of myth, for example, as a manifestation of the sacred (Otto 1917), a verbal form of ritual (van der Leeuw 1933), or an 'eternal return' to the sacred's first appearance (Eliade 1971). Feyerabend emphasizes the cognitive content and epistemological structure of myth. According to him, myths serve a two-fold function: to present knowledge and to utilize the knowledge for furthering social and cosmic harmony.

Already from the 6<sup>th</sup> century B.C., many exegetic schools existed, which attempted to interpret Homers' epics in an allegorical way. For example, the mythologist, Hesiod, attempted to rationalize myth by dividing it into three generations of gods and their antithetical relations.

According to Feyerabend, the *Theogony* of Hesiod contains a very sophisticated and 'modern' cosmology:

"The world, including the laws that govern its main processes, is the result of a *development*, the laws themselves are neither eternal, nor comprehensive but come from a *dynamical equilibrium between opposing forces* so that there is always a danger of disruptive changes (the giants may break their fetters, overpower Zeus, and introduce their own laws), and the entities it contains have a twofold aspect, they are dead matter, but they are also capable of acting like things alive" (Feyerabend 1991: 114).

After the attack on Homer by Heraclitus and Xenophanes, Western philosophical tradition did not have much of an understanding of myths. For the Western world, myths were just a matter of fantasy and had nothing whatsoever to do with forms of thought. For centuries, stories from Homer's *Iliad* and *Odyssey* were used for inspiration or to explain the qualities of true heroism, and nobody thought them to be more than delightful pieces of fiction; this was until the end of 19<sup>th</sup> century, when amateur archeologist, Henry Schliemann, found Troy by assuming certain parts of the *Iliad* to be literally true. One of the first philosophers to take non-rational thought seriously was Ernst Cassirer in the 20<sup>th</sup> century. From the second half of the 20<sup>th</sup> century, anthropological and philosophical theories held new attitudes, which led in various ways to the rehabilitation of myth. As Vernant claims:

"Its 'absurdity' was no longer denounced as a logical scandal; rather, it was considered as a challenge scientific intelligence would have to take up if this other form of intelligence represented by myth was to be understood and incorporated into anthropological knowledge"(Vernant 1980: 186).

The first scholarly theories of myth appeared during the second half of the 19<sup>th</sup> century. These theories were heavily influenced by Darwin's theory of evolution and Comte's 'Positive Philosophy.' Culture was usually perceived as progressive, developing from simple 'primitive' forms of society and 'primitive' form of thought to a culmination of the most complex form of society. Myth at that time was often interpreted as the primitive counterpart of modern science. Primitive man was in

these theories represented as a childish, crude, and prodigal and was comparable to animals and imbeciles. Herbert Spencer asserts that the mind of the primitive man is non-speculative, uncritical, incapable of generalizing, and with scarcely any motions save those yielded by perceptions. Then again he says that in the undeveloped vocabularies and grammatical structures of primitives only the simplest thoughts can be conveyed (Evans-Pritchard 1965: 198).

Victorian scholar, Tylor, introduced an unilinear progressive model of development treating mankind as homogenous in nature, though placed in different grades of civilization (Tylor 1903: 7). Tylor divided this universal development of culture into three steps: savage, barbaric, and civilized (Tylor 1903: 26). This theoretical model, even if not focusing on evolutionary theory, heavily influences many other approaches that emerged in the 19<sup>th</sup> or early 20<sup>th</sup> century and can be seen in the work of Frazer, Marx, and to some extent Freud (Kunin, Miles-Watson 2006: 14). Tylor argued that myth was a product of human intellect in its early childlike state (Tylor 1903: 284).

Based on over a century of ethnology and research in psychology, genetics, and other disciplines, scholars now accept that humans from all eras and parts of the world have equal intellectual capacity and potential. The evolutionary theory of cultural development was criticized from the point that the empirical data (from ethnographic studies) suggested that there was no single path of development, nor are particular forms of religion clearly associated with any form of technology or social structure. The final and most significant critique is that of ideology. "Both the collection of data and the theorists were complicit in colonial or imperialistic systems. The theory thus serves as an ideological justification for the domination or even eradication of societies seen as evolutionary inferior" (Kunin, Miles-Watson 2006: 15).

Feyerabend claims that the most sophisticated nature-myth theory at that time is from the structuralism of Claude Lévi-Strauss and thus Feyerabend adopted its logic. According to Levi-Strauss, myth, like the rest of language is made up of constituent

units. But unlike ordinary language, these constituent units belong to a higher and more complex order. Levi-Strauss calls these higher units which differentiate myth from other forms of speech, “gross constituent units” (Levi-Strauss 1955: 431) or “mythemes.” The true constituent units of a myth are not the isolated relations, but bundles of such relations, and it is only as bundles that these relations can be put to use and combined so as to produce a meaning of a myth. In examining these relations between mythemes, Levi-Strauss concluded that a myth consists of binary oppositions and claims that the human mind thinks fundamentally in these binary oppositions and their unification. Levi-Strauss asserts that the “kind of logic in mythical thought is as rigorous as that of modern science” (Levi-Strauss 1955: 444), the difference lying “not in the quality of the intellectual process, but in the nature of the things to which it is applied” (Levi-Strauss 1955: 444). Levi-Strauss concludes that the “same logical processes operate in myth as in science, and that man has always been thinking equally well; the improvement lies, not in an alleged progress of man’s mind, but in the discovery of new things to which it may apply its unchangeable abilities” (Levi-Strauss 1955: 444).

Feyerabend saw in Levi-Strauss' structuralism a successful attempt at progressing beyond the naive view of earlier nature-myth theories, which as he claims is parallel to theories in science that are comparable to more complex forms of empiricist theories in the philosophy of science. Feyerabend also believes that myth embodies some kind of structure for understanding and possessing nature (Feyerabend 2009: 97). The question is how far does myth go to make this possible and how does it hinder the possession of nature?

Feyerabend emphasizes a peculiar feature in composition, very typical for myth, which is a lack of difference between main and subordinate clauses. The same composition which inspired him, Feyerabend found in Wittgenstein's *Tractatus Logico-Philosophicus* (1922) (Feyerabend 2009: 102). The compositional style of such

a text is called paratactic style. Nominalist Wittgenstein wrote his *Tractatus* strictly in this paratactic juxtaposition of atomic sentences.

Feyerabend adopts this nominalist constructivism and asserts that the structure of myth is the same like Wittgenstein's *Tractatus*, the paratactic aggregate without any substance. Feyerabend believes that such a structure of myth describes the world, nature, and events analogically as an open dynamic aggregate of things and events without any substances (Feyerabend 2009: 103). Also, Feyerabend's eliminative materialism states that the only entities existing in the world are atoms and aggregates of atoms. Therefore, the only properties and relations are the properties of and the relations between such aggregates.

According to Feyerabend, a more sophisticated version of the nature-myth theory can be found, for example, in the linguistic approach of Benjamin Whorf. American linguist, Whorf, did not exactly create any theory of myth, but analyzed the metaphysics of the meso-American Hopi tribe. Whorf's linguistic analysis claims that objective reality is not something merely given, but rather is shaped by our native language. "The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems in our minds" (Whorf 1959: 212-213). According to Whorf, the formulation of ideas is not an independent process strictly rational in the old sense, but is part of a particular grammar and differs from slightly to greatly between different grammars.

"It was found that the background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade" (Whorf 1959: 212-213).

Feyerabend argues in favor of the Kantian idea that the theories we subscribe to influence our language, our thought, and maybe even our perception. Thus Whorf's

linguistic analysis supports Feyerabend's theory of a constructional character of the mind where theories co-constitute the phenomena we experience. Feyerabend found this assumption that our perceptual world is a mental construct also in Nietzsche's philosophy of nature in his book, *Wahrheit und Lüge im Aussemoralische Sinn* (1873). Feyerabend attempts also to demonstrate that "scientific theories are ways of looking at the world and their adoption affects our general beliefs and expectations, and thereby also our experiences and our conception of reality. We may even say that what is regarded as a 'nature' at a particular time is our own product in the sense that all the features ascribed to it have first been invented by us and then used for bringing order into our surroundings" (Feyerabend 1981: 45).

### **2.3. Archaic World as Paratactic Aggregate**

Feyerabend's interpretation of archaic thought structure (epistemology, form of life) is based mainly on Snell's analysis of Homer's epic poem, *Iliad*, and also on the analysis of late geometric figurative art from the end of the Greek dark ages. The period of time of Feyerabend's interest is from approximately 800 B.C. to 600 B.C. The epics, *Iliad* and *Odyssey*, originated around 800 B.C. in southwest of Asia Minor. The *Iliad* refers to events that happened around 1200 B.C. when the coalition of Greek states fought for ten years in front of Troy. A few weeks during the final year of the war is described in the *Iliad*. This war signifies the historical division line between the Bronze Age and Iron Age and between Mycenae culture and later Greek culture. The younger epic, *Odyssey*, refers to Odysseus, who survived 12 years on a dangerous sea voyage home after the Trojan War. The original poem was composed according to orality produced by rhapsodists (professional performer) and was more likely intended to be sung than read.

The aim of Feyerabend's analysis is to present remarkably parallel features of archaic vocabulary, syntactical grammar, literary style, pre-scientific and pre-philosophical

thoughts, and various kinds of visual art. Feyerabend claims that these features call attention to a fully-developed worldview of archaic man. Feyerabend calls the Greek archaic worldview the 'paratactic aggregate.'

The term parataxis was introduced to scientific nomenclature by the German philologist, Friedrich Thiersch, in his *Greek Grammar* of 1831. Thiersch examined 12 different dialects of the Greek language from Epic to Romaic (modern Greek) and noticed a peculiarity about the lack of subordinate clauses in syntax in the earliest dialects, for example, the dialect of Homer. According to Thiersch, from this simple syntax of parataxis was developed a more sophisticated syntax of hypotaxis. The doctrine of parataxis was further stated by Lange in his paper of 1852, and the word has since become an accepted syntactical term in opposition to the term of hypotaxis (Morris 1901: 113). Parataxis is often recognized by one of the conjunctions *and, so, either... or, neither ...nor, but*. The most common hypotactic conjunctions include *if, while, because, when*. From the beginning of discussions about parataxis, there is some disagreement among grammarians and it is problematic to come to a narrow definition of this term. A number of often conflicting definitions have emerged, but briefly parataxis gives what is generally known as a coordination or juxtaposition of two simple sentences, while hypotaxis represents subordination. Metaphorically these two terms could be expressed, for example as rail (parataxis) and ladder (hypotaxis). Parataxis is commonly thought as a kind of melting together of two independent sentences, placing them side by side like beads on a string and is associated with a stream or train of thought. A classic example of a paratactic sentence is Caesar's boast as reported by the historian, Suetonius: "Veni, vidi, vici" or in other words, "I came, I saw, I conquered" (Suetonius, *Julius Caesar*, sect.37).

Hypotaxis is mostly defined as the relation between a dependent and dominant element. Contrasting with this is parataxis, which is the relation between two like elements of equal status, one initiating and the other continuing (Butler 2003: 260 cites Halliday 1994: 218). Linguists of the beginning of the 20<sup>th</sup> century, who observed

paratactic sentences in Sanskrit, Greek and from early Latin writers, served the theory of evolutionary development of human language and regarded paratactic sentence structure as a primitive stage of undeveloped human thought. "Order was gradually brought into the chaos of the mind, and man became able to correlate and classify" (Wallin 1910: 10). Because the field of parataxis is more apparent in spoken languages, they presupposed that there is a discrimination tone within the sentence, an accent which does suggest subordination (Morris 1901: 123).

Parataxis was detected as the main characteristic of compositional technique for pre literate archaic cultures. As far as we know, it occurs in Mycenaean court poetry, which can be traced to the poetry of Eastern courts (Sumerian, Babylonian, Hurrian, Hethitic, Phoenician). This style was developed from a highly formal royal correspondence (Webster 1977: 207). As paratactic composition significantly appears in Homeric epic poems, it is introduced in the theory of oral-formulaic composition in the 1920s by Parry and Lord (see for example Parry 1971; Lord 1960; Foley 1988). Parataxis heavily influenced written literature post-Homer until the 5th century, when Greek prose arose. Homer exhibited this stylistic phenomenon also called 'the adding style' (Parry 1971) or 'the cumulative technique' (Kirk 1991). Feyerabend adopted Webster's term 'paratactic aggregate,' which combines Homer's style and geometric figure scenes (Webster 1977: 207).

## **2.4. Parataxis in Geometric Art**

The first scholar who documented the difference between archaic-paratactic and classical-hypotactic statuary was a German specialist of ancient art, particularly sculpture, Gerhard Krahnert in 1931. Classical art attempts realistic depiction of things and events with a perspective, while archaic, formal art describes an event by the aggregation of elements. The elements of such an aggregate are all given equal importance; the only relation between them is sequential; there is no hierarchy; and

no part is presented as being subordinate to and determined by others (Feyerabend 2009: 117). The early art style is described as follows:

“The early geometric system of decoration was elaborated in two ways: first by a structural alteration in the ornamental scheme—the division of the main zone by means of verticals into rectangular fields; and secondly by the introduction of animal and human figures...The chief animals are birds, horses, deer: the scenes are mostly battles, often at sea or on the seashore, and funerals. The figures are schematized silhouettes. The men, for example, are very tall and thin, the trunk a triangle tapering to the waist, the head and a knob with a mere excrescence for the face: towards the end of the style the head is lit up—the head-knob is drawn in outline, and dot signifies the eye” (Beazley, Ashmole 1932: 3).

“The silhouettes present a number of postures: they stand, march, row, drive, fight, die, lament, etc. But always their essential structure must be clear, and this is one of the legacies which remains in archaic and classical art” (Webster 1977: 205).

According to Webster, attic geometric art should not be called primitive, even though it does not have the kind of photographic realism that literary scholars appear to demand from painting. Webster argues that it is a highly sophisticated art form with its own conventions that serve its own purposes. In his analysis, Feyerabend gives as an example of two pictures: a kid half swallowed by a lion and a charioteer standing in a carriage. According to Feyerabend, these pictures do not represent an illusory account of a situation, but a visual catalogue, a list, which is supposed to 'read' rather than 'see.' The lists are organized sequentially; that is, the shape of an element does not depend on the presence of other elements (Feyerabend 2009: 117-121). Lions are ferocious, kids are peaceful. The kid in the picture looks peaceful even while being swallowed by a lion precisely because the picture 'reads:' ferocious lion, peaceful kid, swallowing of a kid by lion. A charioteer standing in a carriage is painted as standing above the floor on purpose so that everything can clearly be seen. The elements of the aggregate may be physical parts, states of affairs or actions. Feyerabend maintains that these formal features of geometric style represent a predominant habitual description of a world that consists of the elements.

Geometric art was in regard to inner perfection in many respects more realistic than classical Greek art. According to Feyerabend's interpretation, they both represent a

fully-developed worldview. Feyerabend is aware that the argument for archaic "elemental" ontology can never be conclusive, but it can be detected in many aspects of archaic common sense and socio-cultural aspects of archaic society. Nevertheless, Feyerabend argues that if these idiosyncrasies of a particular style of painting are found also in statuary, in grammar, in poetry, in popular sayings, in common law, then philosophical principles which declare these idiosyncrasies to be features of the world even when they are part of normal perception, should be assumed to deal with a coherent way of life (Feyerabend 2009: 124). In *Against Method*, Feyerabend refers to the research of Piaget and his school of thought and even claims that people involved in this way of life perceive the world in the same way in which we now see their pictures (Feyerabend 1975: 168). Such claims were often a point of criticism for Feyerabend (Preston 1997, Clark 2001).

Feyerabend makes parallels between the change of Greek styles and the transition from the Middle Ages to the Renaissance; this transition is also considered to be the rise of Western rationalism and the origin of science and the scientific method (Feyerabend 1984, 1999). Feyerabend notices parataxis in medieval Byzantine art, where the figures and their schematic formation are placed in a paratactic manner without regard to perspective. Still the Renaissance pictorial allegories of the 1500s have a paratactic aggregate structure, where in each of these pictures, bodies and objects are juxtaposed in unexpected ways. The figures and things are elements that might make perfect sense in one context, but baffle us when transferred to an unexpected context (Wood, 2009). Vasari and his followers attributed this anti-naturalistic character to a decline in artistic skills and standards, which had in turn been revived by the contemporary painters of the Italian Renaissance. Feyerabend opposes progressivism in the artistic description of the nature of reality and states that the Italo-Byzantine style may have caught an element of reality that had disappeared by the time Renaissance paintings with central perspective, natural posture, character, and emotions appeared. According to Feyerabend, new schema

and stereotypes arrived as the result of an almost accidental transference of rules implicit in one practice to another (Feyerabend 1999: 97-99). One view or an all-pervasive theory is placed side by side with the idiosyncratic historical process. The same argumentation is used in Feyerabend's famous analysis of the Galileo experiment and paradigmatic change during the Renaissance. For Feyerabend, nature as described by scientists is a work of art that is constantly being enlarged and rebuilt by them.

## **2.5. Snell's Concept of Homeric Man as Aggregate**

Feyerabend fully adopted Snell's linguistic analyses of early Greek expressions for body and mind from Snell's provocative and influential work, *Die Entdeckung des Geistes* (1946) and *The Discovery of Mind* (1953). Snell expresses an interpretation of the unique Iliadic view of man as an aggregate of parts of the body with similar features extending to an understanding of the self and of the world. This interpretation of Snell's supports Feyerabend's idea that the archaic worldview prevails over the epistemological and ontological basis in the dynamic paratactic aggregation of things and events. In his biography, Feyerabend writes:

"I still remember the excitement I felt when reading Snell on Homeric notion of human being. This was not a theory formulated to bring order into material that could stand on its own feet; it was a set of habits that pervaded everything - language perception, art, poetry, as well as various anticipations of philosophical thought. Acting accordingly, the early Greeks seemed to live in a special and self-contained world"(Feyerabend 1995: 140).

Snell's methodology was meant to explain Homer strictly his own terms. "The more carefully we distinguish between the meanings of Homer's words and those of the classical period, the clearer grows our vision of the gulf which lies between the two epochs, and of the intellectual achievement of the Greeks" (Snell 1953: 1).

## Expressions for operation of sight in Homer

The typical feature of archaic languages is their lack of abstraction. Homer's language uses a number of verbs for the operation of sight: *horan*, *idein*, *leussein*, *athrein*, *theasthai*, *skeptesthai*, *ossesthai*, *derkesthai*, *paptainein*. But only two verbs for seeing are used in the language of Antic Greece: *blepein* and *theorein*.

*Derkesthai* is etymologically connected to *dracon* - 'the seeing one,' the snake. The meaning of this verb is to have a particular look in one's eyes: to stare, to glare, or to glaze. With Homer, this is used as *derkesthai* of the Gorgon; of the eagle; of the Patroclus when Achilles blames him for looking like a crying girl who begs her mother to take her in her arms (I.e. 16.10); and with Odysseus when missing his homeland in exile, his fixed glance continually traveled forth across the sea (Od. 5.84 and 158). Snell infers that Homer's, *derkesthai*, refers not so much to the function of the eye as to its gleam as noticed by someone else (Snell 1953: 2-3). *Paptainein* represents 'looking about' inquisitively, carefully, or with fear. For *paptainein*, as well as for *derkesthai*, there is no evidence of using it in the first person in Homer's works. This mode of looking is noticed in others. According to Snell, *paptainein* denotes a visual attitude and does not hinge upon the function of sight as such (Snell 1953: 4).

*Leussein* is derived from *leukos*, which means gleaming or white, and the translation of the verb *leussein* is to see something bright. This verb, in spite of the previous two, appears as *leusso* (first person singular) and connotes certain sensations experienced in the act of seeing specific objects like fire or shining weapons. Snell postulates that this term too derives its special significance from a mode of seeing; not the function of sight, but the object seen, and the sentiments associated with the sight give the word its peculiar quality (Snell 1953: 3).

*Ossesthai* means to have a threatening impression, and thus it roughly corresponds to mean 'suspect'. Once more, as with the previous examples, Snell claims that the object and the accompanying sentiment determine what is seen. *Theasthai* means to

look with one's mouth wide open, i.e., 'to gape' or 'stare.' This verb of sight bases its significance upon gesture and feeling (Snell 1953: 4).

*Theorein* is a new verb in Ionic Greek derived from the noun, *theoros*. Its basic meaning is 'to be a spectator' like watching from a distance, for example, the Olympic games. Soon, however, it came to mean, 'to look on,' 'to contemplate' without reflecting an attitude or an emotion. The stress lies on the fact that the eye apprehends an object. Only *theorein*, together with another later Ionic verb, *idein*, were further used in antic Greek in the meaning of the real substance of the operation known as 'sight.' The other verbs disappeared except for *paptainein*, which survived in its imperfective form as *periblepesthai*, 'to look around' (Snell 1953: 4).

According to Snell, Homeric men took no decisive interest in what we justly regard as the basic function, the objective essence of sight; and if they had no word for it, it follows that as far as they were concerned it did not exist (Snell 1953: 4).

### **Expressions for Body in Homer**

The word in 5<sup>th</sup> century Greek which refers to the body is *soma*. The Alexandrian scholar, Aristarchus, back then already noticed that in Homeric Greek the word *soma* was never used with reference to a living being; *soma* only refers to a corpse. Aristarchus expressed the opinion that for Homer, *demās* was the live body. The expression *demās* refers to a live body, but Snell considers it only to be the accusative of specification; for example, 'His body was small' appears in Homeric Greek, and 'his body resembled a god's.' It means 'in structure,' 'in shape,' such as to be small or to resemble someone (Snell 1953: 5).

Homer's other expressions for the 'body' are 'limbs;' *guia* are the limbs as moved by the joints, and *melea* refers to the muscular strength of limbs. Snell gives many examples where limbs were translated as a body: 'his body became feeble;' his whole body trembled;' 'sweat poured from his body' (Snell 1953: 5).

*Chros*, 'the skin,' is another word in which Homer describes the whole body: 'to wash a body' or 'the sword pierced his body.' But according to Snell, *chrosis* is not skin as an anatomical substance, but rather the skin that can be peeled off-that is *derma*- the skin as surface, as the outer border of the figure of man, as the foundation of color, and so forth (Snell 1953: 6). Snell sums up that among the early expressions designating what was later rendered as *soma* or 'body,' only the plurals *guia*, *melea*, etc. refer to the physical nature of the body; for *chros* is merely the limit of the body, and *demas* represents the frame, the structure, and occurs only in the accusative of specification.

Snell provides a considerable account of examples from Homer for the presumption that the Homeric Greeks perceive the body as a sum of limbs, showing that Homer frequently speaks of swift legs, of knees in speedy motion, of sinewy arms, etc. Snell also saw that the same concept of the human body which contains Homeric language appears on the vases of the geometric period. Male figures were painted with clearly distinguished limbs from one another with huge unrealistic muscles, while the joints on the other hand are presented as being extraordinarily thin.

"As it is, early Greek art actually corroborates our impression that the physical body of man was comprehended, not as a unit but as an aggregate. Not until the classical art of the fifth century do we find attempts to depict the body as an organic unit whose parts are mutually correlated. In the preceding period the body is a mere construct of independent parts variously put together" (Snell 1953: 6).

The unity of the body was neither designated by words nor perceived or known to the Homeric man. Man was perceived and described by the most conspicuous

elements of his appearance and as the sum total of his limbs. As Sullivan summarizes, Snell's demonstration that the early Greeks did not yet have a unitary concept of the body has been often criticized, corrected, supplemented, and refined, but not superseded by later scholars. Snell's view that *soma* only refers to a corpse follows, for example, Vivante 1955; Herter 1957; Koller 1958; Krafft 1963. In opposition to this view of *soma* as a corpse are the following scholars: Hirzel 1914; E. Bickel 1926; Harris 1960; West 1978; Renehan 1979. Sullivan argues that *soma* means "body" in Homeric Greek and can refer either to a living body or to a corpse (Sullivan 1988: 2).

### **Snell's Interpretation of the Homeric "Soul" or "Mind"**

As Snell further demonstrates, the Iliadic vocabulary lacks a single word for the concept of soul, consciousness, or mind. According to Snell, people started perceiving their individuality from the age of lyricism, where first person singular appears frequently. This peculiarity was covered in detail by many classical philologists of the past century (see Dodds 1951; Onians 1951; Fränkel; 1962; Adkins 1970; Bremmer 1987; Robinson 1989; Taylor 1989; Sullivan 1988; Caswell 1990; Griffin, 1980; Gaskin, 1990; Pelliccia, 1995; Clarke, 1999; Williams, 1993; Porter, 2006).

According to Dodds, the archaic concept of the soul was replaced in Greek with a new and revolutionary concept of the relation between body and soul appearing at the end of the Archaic Age. For Dodds, this new development was due to trade and colonization that had brought the Greeks in contact with the shamanic culture of the Black Sea Scythians during the 7<sup>th</sup> century (Dodds 2004: 136).

In later Greek, the word for soul is *psuche*. For Homer, *psuche* is the force that keeps the human being alive and it leaves its owner when he dies or when he loses consciousness. The word *psuche* is akin to *psuchein*, 'to breathe.' Homer says that the *psuche* is risked in battle, especially when battle is waged for it, because one wishes to save his *psuche*. (Il. 21.569) The *psuche* usually leaves the body through the mouth

( Il. 9.409) or through a wound ( Il. 14.518; 16.505). Bremmer distinguishes between two types of *psuche*. In Homeric Greek it is the free soul, which possesses no psychological attributes and is active only outside of the body, as in dreams, swoons, and the afterlife; there is also the body soul, which endows a person with life and consciousness (Bremmer 1987: 8).

The other words for the 'mind' that Snell elaborates on are *thumos* and *noos*. According to Snell, in Homeric Greek *thumos* is the generator of (e)motion or agitation (joy, pleasure, love, sympathy, anger), while *noos* is the cause of ideas and images (Snell, 1953, 9). *Thumos*, the mental organ that provides motion for the bones and limbs leaves the limbs at the point of death, while *thumos* does not continue to exist after death unlike *psuche*, which goes down to Hades. The death of an animal is described in Homeric Greek also by losing *thumos* - the death of a horse (Il. 16.469), of a stag (Od. 10.163), of a boar (Od. 19.454), or of a dove (Il. 23.880). According to Snell, it is evident that people were averse to ascribing the *psuche* that a human being loses when he dies also to an animal. They therefore invented the idea of a *thumos* which leaves the animal when it expires (Snell 1953: 10). Caswell extended the functional categories of *thumos* to loss of consciousness-death, to cognitive or intellectual function, to emotional function, to deliberative function, and to the function of motivation. For Caswell, *thumos* was both the blowing breath or the flowing blood (Caswell 1990: 25).

*Noos* is akin to *noein* which means 'to realize,' 'to see in its true colors.' It often can simply be translated as 'to see,' while it represents a type of seeing which involves not merely visual activity, but the mental act which goes along with the vision. As Snell says, "It is the mind as a recipient of clear images, or, more briefly, the organ of clear images" (Snell 1953: 12). The *noos* of Zeus is much stronger than that of men (Il. 16.688). However, Snell notices that there is no clear distinction between *noos* and *thumos*, and they overlap in many cases. In Homeric Greece, there are examples for knowing something by emotion (*thumos*) or to experience joy as mental reflection.

Agamemnon rejoiced in his *noos* when Achilles and Odysseus quarreled with each other for the distinction of being the best man (Od. 8.78).

Snell discussed the concept of 'soul' and 'mind' mainly by way of the notions of *psyche*, *thumos*, and *noos*. After Snell, other scholars continued to analyze additional psychic entities, which in Homeric Greek symbolized emotional and mental activity, for example, *phrenes* or *prapis*, presumably meant the inflating of the lungs and *etor*, *kradie*, *ker* meant the heart (Sullivan 1988: 196).

These mental events are not necessarily private and may belong to different individuals altogether. Snell and many other scholars argue that in Homeric Greek we never find a personal decision or a conscious choice made by an acting human being. Even where a hero is shown pondering two alternatives, the intervention of the gods plays the key role. Mental and spiritual acts are due to the impact of external factors, and man is the open target of a great many forces that impinge on him and penetrate his very core (Snell 1953: 20). Onians says that Homer's heroes, with all their magnificent vitality and activity, perceives themselves at every turn not as free agents, but as passive instruments or victims of other powers (Onians 1988: 303).

"A man felt that he could not help his own actions. An idea, an emotion, an impulse came to him; he acted and presently rejoiced or lamented. Some god had inspired or blinded him." (Onians 1988: 303)

Hermann Fränkel has aptly termed the Homeric man "ein offenes Kraftfeld," an "open-field of energy" that divine forces can readily enter or leave (Sullivan 1988: 9).

Feyerabend speaks about the Homeric man conceptually and optically like rag dolls and functioning as a transit station for events (ideas, dreams, feelings). "[H]e *finds himself involved in one series actions rather than in another and his life develops accordingly*" (Feyerabend 1987: 97).

“The heroes of the *Iliad*, however, no longer feel that they are the playthings of irrational forces; they acknowledge their Olympian gods who constitute a well-ordered and meaningful world. The more the Greeks begin to understand themselves, the more they adopt of this Olympian world and, so to speak, infuse its laws into the human mind” (Snell 1953: 21).

Homer also has many words for our term 'force' and the meaning of each of these words is precise, concrete, and full of implications; so far from serving as abstract symbols of force, as does the later term, *dunamis*, a term which may be used regardless of function (Snell 1953: 20). *Menos* is the force in the limbs of a man who is burning to tackle a project. *Alke* is the defensive force that helps to ward off the enemy. *Sthenos* is the muscular force of the body, but also the forceful sway of the ruler. *Kratos* is supremacy, the superior force. *Bie* could be the original term for *menos*. Snell explains that Homeric man has not yet awakened to the fact that he possesses in his own soul the source of his powers, but neither does he attach the forces to his person by means of magical practices; he receives them as a natural and fitting donation from the gods (Snell, 1953: 21).

The same aggregation exists with verbs concerning knowledge. None of the verbs that could be translated as 'to know' refers to a personal mental activity when a man tries to understand something. *Gnonai*, in Homeric Greek is to recognize someone; *sunienai* – to notice something by hearing someone's speech; *eidenain* - to have seen; *sophos* - someone who has a skill (carpenter); *histor* – witness; *manthanein* – to get used to something; *epistasthai* - to be practically good at something; *noein* – to notice. Homer uses the prefix *polu-* to express an increase of knowledge; *polufron* and *polumetis*: 'much pondering' and 'much-knowing'. As Snell highlights, quantity, not intensity is Homer's standard of judgment and knowledge (Snell 1953: 18). Quantity of knowledge comes simply from exposure to many parts of the world; there is no essence to be grasped behind appearances. In fact, there are no *appearances* of things in this world. There are simply the things themselves (Feyerabend 1975: 260-261). The later distinction between essence and appearance

brings about a radical reordering of thinking structure. Feyerabend's interpretation of early Greek science is a conquest of abundance (Feyerabend 1999).

## 2.6. Critical Response to Snell's View

Snell's provocative linguistic research of the Homeric man as an aggregate, both physically and psychologically, appears somewhat unusual or counter-intuitive. As stated above, some scholars shake the assumption that *soma* only means a corpse (Sullivan 1988), but main critical analysis concerns Snell's view of Homeric pluralistic or fragmented psychology. For example, the absence of a single word encapsulated notions like self, mind, soul or consciousness in Homeric Greek should not be taken as evidence that the concept of a unified soul or self was lacking (Sullivan 1988: 2). Homer's works contain only words that fit into dactylic hexameter. Thus, it may well be that Greek vocabulary at the time of Homer was far greater than the words we encounter in his poems (Sullivan 1988: 3). On the other hand, there is no controversy among scholars that Homeric vocabulary intrinsically lacks abstract notions.

Sullivan also believes that Homeric heroes are strong personalities with distinctive traits. The names of heroes, as Sullivan argues, also points to separate individuals relating to their inner structure and further refers to the use of both the first personal pronoun and the first singular reflexive (examples that refer to "I myself": Il.1.271, 5.495, 6.446, 7.101, 16.12).

For example, Agamemnon admits when explaining how he came to be angry with Achilles: „I myself (autos) took away his prize" (Il. 19.89). According to Sullivan, such linguistic usage points to a capacity for self-awareness, even though this may not have been accompanied by conscious reflection about the self (Sullivan 1988: 4).

On the other hand, Dodds used this part of Homer to explain irrationality in early Greek language. Agamemnon declares that it was not him who took Achilles`

mistress: "not I was the cause of this act, but Zeus and my portion and the Erinyes who walk in darkness: they it was who in the assembly put wild *ate* in my understanding, on that day when I arbitrarily took Achilles' prize from him. So what could I do? Deity will always have its way." (Il. 19.86) According to Dodds, „It would be a misunderstanding of the Greek concept of divine temptation or infatuation (*ate*) to read these words of Agamemnon as a weak excuse or evasion of responsibility” (Dodds 2004: 3).

However, many other contemporary scholars and classicists disagree with Snell's concept. Gaskin contends that Homeric decision-making stands up as a fully self-conscious, autonomous activity (Gaskin 1990) or even that Homeric Greeks are recognizably unified selves just like us (Williams 1993). Pelliccia opposes Snell's view by demonstrating that Homeric organs like *thumos* in Homeric Greek recognize the functions particular to them, but subordinates them to the speaking person as parts of a whole (Pelliccia, 1995: 27). Clarke seeks unitary concepts that are articulated in varying ways to produce a range of images. According to Clarke, the relationship between mental life and the body in Homeric poems is best characterized in terms of unity (Clarke 1999: 12), whereas Porter assumes that Snell's approach is loaded with prejudices of German romanticism about the Homeric mind (Porter 2006). Budelmann problematizes Snell's presumption of epic temporal sequence followed by individuality expressed in lyrical form. Budelmann claims that there is no reason to believe that lyrics were not being composed and performed already a long time before the epic (Budelmann 2010:14). Snell's concept of paratactic aggregation of the body and mind in Homeric Greek may be perceived as reductive (Lateiner 2006), one-sided, and an exaggerated explanation of Homeric psychology. On the other hand, Snell's research and Feyerabend's effort to aggregate all relevant interpretations of archaic Greek supporting this view, indeed reveals some unique and significant aspects and archetypical patterns of understanding the world.

## 2.7. Feyerabend's World of Archaic Age as a Paratactic Aggregate

Already we can see how Snell attempts to describe the whole archaic worldview and how Feyerabend further develops the idea that archaic man understood the entire world according to the principles of paratactic aggregate described above. For example, Feyerabend points out the paratactic treatment of events in the case of human motion when Achilles drags Hector along in the dust (Il 22.298). The process of dragging also contains the state of lying as an independent part, which together with other such parts, constitutes the motion. For the poet, time is composed of moments, similarly like the Zeno argument of the arrow (Feyerabend 1975: 180). According to Feyerabend, the view that things, ideas, actions, and processes are aggregates of (relatively independent) parts becomes clear also from funeral inscriptions, passages of comedy, sophistic debates, or even medical and historical treatises (Feyerabend 1999: 38).

The same goes for worldviews. Archaic religion offers an opportunistic eclecticism that does not hesitate to add foreign gods to those already accepted. Greek myth is not one story, but an aggregate of many stories and myths (often foreign). According to Levi-Strauss, what constitutes a myth are not the individual versions, but all the versions together. These versions can fundamentally (or in their details) contradict each other. For example, there are many places of birth and tombs of immortal gods. Such contradictions were not perceived as a problem during the Archaic Age. It appears though to be a point of contention in the 6<sup>th</sup> century B.C. for Hecataeus and for philosophers, such as Heraclitus and Xenophanes. The Greek pantheon was an aggregate of generations of gods, whereas foreign gods were added as well (Apollo). Every god manifested a special field of being, which were all joined by a dialectical relationship.

The natural world is subdivided into qualitatively different regions that are subjected to different laws. Poseidon says in the *Iliad*:

...Since we are three brothers born by Rheia to Kronos,  
Zeus and I and the third is Hades, lord of the dead men.  
All was divided among us three ways, each given his domain.  
I when the lots were shaken drew the grey sea to live in  
Forever; Hades drew the lot of the mists and the darkness,  
And Zeus was allotted the wide sky, in the cloud and the bright air.  
But earth and high Olympos are common to all three. Therefore  
I am no part of the mind of Zeus. Let him in tranquility  
And powerful as he is stay satisfied with his third share.

*Iliad* (15, 187ff) [Lattimore tr.]

The third generation of Olympic gods also illustrates a well-defined part of the world as their field of action— for example, Artemis is the goddess of archery and hunting, Athena is the goddess of wisdom and war, Hephaestus is the god of blacksmiths, and Hermes is the messenger god. Consequently, the list of the favored twelve gods sometimes changed, omitting one god in favor of another.

Dodds uses Murray's metaphor "the inherited conglomerate" for his description of religious growth of archaic Greece. Its principle is agglomeration, not substitution. "The inherited conglomerate" was at the end of the Archaic Age historically intelligible as the reflex of changing human needs over many successive generations, but intellectually a mass of confusion (Dodds 2004, 180). There was no established church to assert that something was true and the other false. There was no "Greek view," but only a muddle of conflicting answers (Dodds 2004: 180).

"A new belief pattern very seldom effaces completely the pattern that was there before: either the old lives on as an element in the new-sometimes an unconfessed and half-unconscious element-or else the two persist side by side, logically incompatible, but contemporaneously accepted by different individuals or even by the same individual" (Dodds 2004: 179).

The religious thought of archaic Greek has an open and dynamic structure that lacks compactness, abstract and eternal principles of a deity, and dogmatic statements about gods, humans, and nature. An expression does not exist for "god-fearing" in the *Iliad* (Dodds 2004: 35), and there is no social stratum of priests in society, but still, Olympic gods constitute a well-ordered and meaningful world.

Achilles shield offers another possible example of paratactic logic and dynamic differentiation of the global order (Il. 18, 478-608). Achilles shield represents the view of the world and gives a detailed description of the imagery starting from the shield's center and moving outward, circle layer by circle layer. The shield is laid out as follows: the Earth, the sky and sea, the sun, the moon, and the constellations (Il. 18, 484-89). Achilles shield can be expressed succinctly here: "Two beautiful cities full of people." In the circles we can see many events: in one a wedding and a law case are taking place (Il. 18, 490-508); in another a city is besieged by one feuding army and the shield shows an ambush and a battle (Il. 18, 509-40); a field is being ploughed for the third time (Il. 18, 541-49); a king's estate where the harvest is being reaped (Il. 18, 550-60); a vineyard with grape pickers (Il. 18, 561-72); a "herd of straight-horned cattle" - the lead bull has been attacked by a pair of savage lions that the herdsman and their dogs are trying to beat off (Il. 18, 573-86); a picture of a sheep farm (Il. 18, 587-89); a dance floor where young men and women are dancing (Il. 18, 590-606); and the last circle represents the great stream of ocean (Il. 18, 607-608).

German scholar, Wolfgang Schadewaldt, points out the principle of dichotomies and trichotomies of situations pictured on Achilles shield, arguing that these antitheses show the basic forms of a civilized, essentially orderly life (Schadewaldt 1978: 56). Schadewaldt analyses that all things, animals, carriages, cities, geographical regions, historical sequences, and entire tribes are presented with a great sense for detail and for description of various processes (Schadewaldt 1991: 59). In fact, the archaic world is indeed described in Homer in an additive manner of the aggregate of things and events without essence or substances. This allows for Feyerabend's presumption

that the archaic epistemological framework or logic is based on paratactic aggregate structure.

On the other hand, focusing on this effort, Feyerabend may be perceived as one-sided and in some aspects a naive interpreter. The paratactic aggregate explanation of the Archaic Age has its own limits. Clark concludes that Feyerabend's own account is something like a myth. For example, Vernant (whom Feyerabend never quoted) claims that Greek theogonies and cosmogonies are in harmony with creation tales that told of the progressive emergence of an orderly world and, above all, were myths of governity (Vernant 1982: 108). According to Vernant, the universe was a hierarchy of powers, which could not be represented by purely spatial schema or described in terms of position, distance, or movement; rather it is a complex and rigorous order expressed by relationships between agents (Vernant 1982: 115). However, Feyerabend would emphasize that within such an order which was established in a dramatic fashion, there is always a danger of disruptive changes.

## 2.12. Conclusion

After research on the Homeric style from the last century, the paratactic discourse or logic that was mentioned in many other archaic, antic oral traditions and early writings becomes apparent. We can see this, for example in Hesiod's, *Theogony* and Herodotus', *Histories*, (Johnson 2004); in Heraclitus, among other Ionian philosophers of nature; in Xenophanes's poems; in Solon's first elegy; in Semonides' poem on women; in Pindaric ode; in drama 's of Aeschylus; Euripides; in the poems of Empedocles and Parmenides; and even in Plato's *Phaedrus* (Notopoulos 1999: 100-101).

Research in ethnomusicology regards logic and the technique of parataxis as the foundation of Greek traditional music (Sarris et al. 2010; Holzapfel, Stylianos 2010). Parataxis was understood also in relation to the pre-monetary economy, which is

pervasively manifest as an actual catalogue listing of places, gifts, generations of men, goods used in payment, etc. (Seaford 2004: 243). Paratactical organization is, for example, also an episodic narrative style of the Pentateuch and Deuteronomy or Mark's Gospel (Aune 1987).

According to Feyerabend, the Homeric world described as paratactic aggregate was gradually replaced by specific and highly idiosyncratic historical developments with a new hypotactic thinking structure, which is the essential world of ancient and classical Greek philosophy. For example, the emergence of rational thought is also very closely linked to changes in the social environment that characterized life in the Greek polis (Vernant 1982). Feyerabend concludes that:

In politics, abstract groups had replaced neighbourhoods (and the concrete relationships they embodied) as the units of political action (Cleisthenes); in economics, money replaced barter with its attention to context and detail; the relation between military leaders and their soldiers became increasingly impersonal; local Gods merged in the course of travel, tribal and cultural idiosyncracies were evened out by trade, politics and other types of international exchange, important parts of life became bland and colorless, and terms tied to specifics accordingly lost in content, or in importance, or they simply disappeared (Feyerabend 1999: 14).

This exaggerated assertion corrected by Clark (2001) points to Feyerabend's effort to illustrate by enumerating on instances that the archaic worldview and its change interferes with every aspect of life. According to Feyerabend, the transition can be traced previously to Achilles' anger when he had been offended by Agamemnon in book 9 of the *Iliad*. Achilles crosses the boundaries separating the rewards of honor from honor itself (Feyerabend 1999: 21).

Feyerabend believes that it was history and not argument (Xenophanes's immovable One) that replaced the earlier ideas about Olympic gods (Feyerabend 1999: 57). Feyerabend calls this process, "The Odyssey of Occidental Metaphysics," and claims that rationalism and science started with Parmenides (Feyerabend 2009: 186). One of the main characteristics of Feyerabend's later philosophy is the opposition against

the rationalist approach of objective reality grasped by eternal principles firstly introduced by Parmenides.

Early Greek philosophy was introduced to the philosophy of science by Popper's essay, *Back to Pre-Socratics* (1958). Feyerabend repeats Popper's view about pre-Socratics and its origins of the tradition of critical and rational theory of knowledge. According to both Popper and Feyerabend, science, as a critical enterprise, begins with the pre-Socratics, while both Feyerabend and Popper differ on their evaluation of it (see Heit 2009). Both also unfortunately exhibit rather one-sided and oversimplified interpretations of pre-Socratic philosophy, particularly of Ionian thinkers.

For Popper, Heraclitus' philosophy is much further removed from common sense. On the other hand, Popper appreciates Parmenides' philosophy as theory which may be described as the first hypothetico-deductive theory of the world.

Feyerabend urges those who find Parmenides' arguments "primitive and linguistically absurd" to consider how many modern scientists repeat his general ideas without his rigor and coherence. "Nineteenth century point mechanics posited a 'real' world without colors, smells, etc." (Feyerabend 1990). Feyerabend blames Parmenides' concept of Being and his rejection "of becoming" in philosophy on stopping the historical and dynamic world of nature of archaic Greek and Ionian philosophers for almost 23 centuries, that is until the rise of evolutionary theories in biology and quantum theory in physics (Feyerabend 1991: 114).

### **Part III. Historical World and Historicity of Knowledge in Nishida's and Feyerabend's Philosophy**

This part attempts to find parallel features of approaching reality according to the modern Japanese philosophy of Nishida Kitarō (1870-1945) and in the philosophy of science of Austrian-born philosopher of science, Paul Feyerabend (1924-1994). What similarities could be found in such a different philosophy as Nishida's philosophy of Absolute Nothingness and Feyerabend's anarchistic epistemology?

Both Nishida and Feyerabend transitioned during the development of their ideas from a theoretical epistemological framework to a dynamic assumption of reality and both introduced original versions of the philosophy of history. Both of these philosophers perceive the reality of the world, the human role in the world, and human knowledge about the reality of the world as a historical and creative process. The dichotomy between subject and object is overcome in both these views. The subjective and objective world is interactively connected. Neither Nishida's historicity of the world nor Feyerabend's historicity of knowledge constitutes a higher synthesis. Their historicity lacks the idea of teleology or progress. The dominating view of objective reality of Western rational philosophy and science is perceived by both philosophers as the result of an idiosyncratic historical process and is one approach among many of grasping reality and nature.

Nishida speaks from his metaphysical and meontological (the philosophical study of non-being) standpoint about science and Feyerabend from the position of theoretician of experimental physics about ontology; they seem to share interestingly similar views. Nishida from the ontological position of nothingness postulates the world of a concrete contradictory self-identity, which always creatively transforms from the old to the new and from an incommensurable situation with the previous one. The world and our knowledge is a creative historical process. Feyerabend, who brings an analysis of the results of quantum mechanics and history of science

concludes that "Being is dynamic and multi-faceted which influences and reflects the activity of its explorers" (Feyerabend 1999: 146).

The basic assumption that our world and our knowledge is a historical and creative process points to an important parallel between Nishida and Feyerabend, namely the incommensurability thesis and cultural, epistemological, and ontological pluralism. These views of Nishida's and Feyerabend's philosophies present the world as a dynamic and creative process and are still very stimulating and important for present day discussions within the field of ontology, epistemology, philosophy of science, philosophy of technology, and ethics. They maintain a vital alternative and inspiration; from a current postmodern context these views seem to be perhaps a more "real" way of grasping reality than the conceived realism of natural science.

Nishida Kitaro, along with other subsequent philosophers of the Kyoto School have received enormous attention, and many books, editions, and research articles have been written concerning Nishida's thoughts mainly on the field of philosophical and inter-religious dialogue between the East and West. This article reflects on the numerous works of Nishida's translators and commentators, namely Masao Abe, J. Maraldo and D. Dilworth. J. Heisig, G. Kopf, Y. Arisaka, among others. In the field of philosophy of science and technology, the author deals with interpretations of Nishida's ideas from the works of J. Murata, A. Feenberg, and K. Noe.

Nishida Kitarō, Japan's premier modern philosopher perceives the world as a social and historical creative process. Human cognition and knowledge have the same features in such a world. Ontology as well as epistemology, is a creative transformational process which has contradictory characteristics of mutual determination of subject and object, individual and society, the transcendent and the imminent, time and space, along with other contradictions. Human beings in such a world do not merely examine the reality of things and relationships between them, but rather they actively construct reality.

Reality reacts and brings a new and incommensurable situation with the previous reality and starts a new activity which embodies this reaction. Nishida tried to find the support for this philosophical concept also in the field of experimental science, namely quantum mechanics. The consequences of Nishida's thoughts have led to discussions within the contemporary field of philosophy of science (P. Feyerabend), philosophy of technology (J. Murata, A. Feenberg), and philosophy of biology (Imanishi K.).

### **3.1. Nishida's and Feyerabend's Comparative Philosophy**

In order to understand Nishida's dialectical philosophy, it is necessary to briefly introduce the main sources of his philosophical inspiration which in turn lead to Nishida's original concept of logic, "basho", a place of absolute nothingness. Nishida Kitarō was the most significant and influential Japanese philosopher of the 20<sup>th</sup> century and a pioneer in comparative philosophy between the 'logic of East' and Western thought structures. Nishida's philosophy was developed from the syncretism of Vedic ideas, Taoism, Mahāyāna and Zen Buddhism, Christian theology, and Western (mainly "continental") philosophy. Nishida was the founder of the well-known philosophical movement of the "Kyoto School" (Tanabe Hajime, Nishitani Keiji, Ueda Shizuteru), where the philosophy of nothingness plays a key role and of which the basic characteristics can be summarized as follows:

1. a committed openness to the Western traditions;
2. a deliberate attempt to bring about a synthesis of East and West;
3. a thorough going loyalty to its own tradition: Eastern, Buddhist, Japanese;
4. an all-pervasive religiosity (Van Bragt 1991: 43).

Nishida's standpoint for his comparative metaphysics, which is identical with Feyerabend's, is that every culture possesses a view of life. The basis for a view of

human life presupposes that there must be some kind of metaphysical thought, even though it even may not to be consciously realized (Nishida 1970: 237). Feyerabend makes the same assumption comparing the Archaic Age with the world of Greek ancient philosophy and Western science (Feyerabend 1993; 1999; 2009; 2011). Both of these philosophers, as opposed to the positivist philosophy, presuppose that a mythical worldview possesses in addition to religion, law, morality, and metaphysics other aspects of a type of scientific knowledge (Nishida 1970: 210; Feyerabend 1999:2009).

Nishida, who introduced the Western metaphysical tradition and Western philosophy to the Japanese thinking tradition, found these two philosophical concepts (ontologies) and their terminology to be incommensurate. Feyerabend claims that two successive and all-pervasive theories in the Western scientific tradition can be (and often are) incommensurable, mainly because a new theory provides a different meaning of basic terms used in the latter theory. According to Feyerabend, language and theory help to structure the perception of reality. Nishida distinguished between the West, where being is considered as the ground of reality, and the East, where nothingness is considered to be its foundation. According to this, Nishida calls Western structured reality as form and Eastern understanding of reality as the formless (Nishida 1970: 273).

"The unique reality of Parmenides was the ultimate of being. The unique reality of the Brahmanic religion was the absolute not-being. The former was an ultimate affirmation, the latter was an absolute negation" (Nishida 1970: 240).

The religion and philosophy of India has run according to Nishida contrary to both Greek philosophy and the Judeo-Christian religion by taking the profoundest idea of nothingness as its foundation. In the Hymn of Creation, book ten of the *Rig Veda* is the statement from the Radhakrishnan translation: "nonbeing existed not, nor being" (Maraldo 2010). The role of negation with regard to ultimate reality is used in Vedic culture to stress the unutterable dimension of a permanent essence of the universe,

an impersonal God. The fundamental reality of the universe is Brahman, which is individual "soul" or Atman. In Nishida's interpretation, the God of the Brahmanic religion both transcends and includes all creation and at the same time God is universally immanent.

"According to the account of the Isa Upanishad, everything in this world is enveloped by the absolute God as if wrapped in a cloak. There is only one unique reality, which is unmoving and prior to mind. God cannot be experienced by any of the senses. God moves and does not move, is both far and near" (Nishida 1998: 23).

Nishida claims that from the standpoint of the teachings of Mahāyāna Buddhism, Hinduism cannot be considered entirely as pantheistic in the sense that all things are merely God, because there must also be a denial of all things. "In Mahāyāna Buddhism, it has attained to the philosophy of the non-duality of samsara and nirvana as in the paradoxical teaching that 'phenomenal being, precisely as it is, is void: voidness, precisely as it is, is phenomenal being'" (Nishida 1988: 23-24). The ideas and reasoning of Mahāyāna Buddhism has an essential influence on the development of Nishida's own dialectical logic and non-dualistic view of nature.

### **3.2. The Logic of Non-Being**

The discursive form of Nishida's thinking, which he calls in his later phase "absolutely dialectical logic" (Nishida 1970: 214) or "logic of contradictory identity," is based on the logic of Nagarjuna and the East Asian Buddhist tradition. This logic is characterized by Nishida's interpreter, David Dilworth, as the logic of the simultaneity and the structural bi-conditionality of opposites without their higher synthesis (Dilworth 1987, 27). In Nagarjuna's logic of eightfold negation, the four positions A, not A, A *and* not A, and not (A *and* not A) all return to the same basic structure of bi-conditional oppositions. That is, they return to A *and* not A (or not A *and* A). In the "negative version" of the same logical form, we get not (A), not (not A), not (A and not A), and not (not(A and not A)). The "and" in these various formulations is always

"and yet" with its corresponding "vice versa." Nirvana and yet samsara; samsara and yet nirvana. Nirvana if and only if samsara; samsara if, and only if nirvana. Nishida follows and develops East Asian Mahayana Buddhism's absolute dialectic and can be demonstrated in a verse of the *Prajnaparamita Sutra*: "form is emptiness, and emptiness is form." That is to say, "form is emptiness, and yet emptiness is form, and vice versa." Or, "form is emptiness if, and only if, emptiness is form, and vice versa" (Dilworth 1987: 130-131).

Of course, the logic of the unity of contradictions is not exclusively a way of thinking only within Asian Buddhism. Thinking in binary opposites is perceived as a basic category of world-structuring in every archaic culture, which appears, for example, in the work of Levi-Strauss or M. Eliade. Nishida cites the Christian Neo-Platonic mystics and theologians Eriugena, Eckhart, Boehme, and the negative theology of Dionysius the Aeropagite and Nicolas of Cusa to emphasize their thinking of the unity of opposites. For example, Cusanus in *De Docta Ignorantia* maintains that the greatest truth is the absolute Maximum. "Therefore, (1) it is most greatly true either that the unqualifiedly Maximum exists or that it does not exist, or (2) [it is most greatly true that it]both exists and does not exist, or (3) [it is most greatly true that it] neither exists nor does not exist. Now, no more [alternatives] can be either asserted or thought" (Hopkins 2001: 11). Nishida claims that his logic of the contradictory identity of the absolute is a "negative theology" in an entirely different framework (Nishida 1987: 71).

In the postscript to his translation of Nishida's essay, *The Logic of the Place of Nothingness and the Religious Worldview*, Dilworth summarizes that a doubly adversative methodic procedure appears also in the text of Heraclitus, the Greek Sophists, Kierkegaard, Nietzsche, Wittgenstein, and Derrida among others (Dilworth 1988: 130).

Feyerabend's philosophy highly appreciates the dialectical process of reasoning. Chuang-tzu's stories, Hesiod's dialectical cosmology, Mani's dualistic Gnosticism,

Eckhart's mysticism and especially negative theology of Dionysius the Aeropagite were important sources of inspiration for Feyerabend's later writings (Kidd 2011). Feyerabend claims that these ideas are analogous to several modern theories in experimental physics and modern cosmologies. For example, the *Theogony* of Hesiod contains according to Feyerabend, a very sophisticated and 'modern' cosmology.

"[T]he world, including the laws that govern its main processes, is the result of a *development*, the laws themselves are neither eternal, nor comprehensive but come from a *dynamical equilibrium between opposing forces* so that there is always a danger of disruptive changes (the giants may break their fetters, overpower Zeus, and introduce their own laws), and the entities it contains have a twofold aspect, they are dead matter, but they are also capable of acting like things alive" (Feyerabend 1991, 114).

As Feyerabend maintains, here myth was definitely ahead of some very sophisticated, critical, and 'rational' scientific views. Feyerabend, whose main interest is in the field of philosophy of quantum mechanics emphasizes that, for example, Heisenberg was directly influenced by Anaximandro's idea of *apeiron* in the development of his notion of *Urmaterie* ("primordial matter"), which lies beyond elementary particles. Feyerabend further points out, for example, Chuang-tzu's story which was inspired by elementary particles of Japanese theoretical physicist, Yukawa Hideki, and his prediction of the *pi meson* (Feyerabend 1991: 142; Mair 1983: 56-62).

Feyerabend also use these various metaphysical concepts for attacking the idea of ultimate reality or 'Being' (Feyerabend 1999: 214). For example, the paratactic aggregate world of Homer represents the open and dynamic form of reality, which is constructed from relatively independent units. Unlike the hypotactic philosophical world, paratactic aggregate of archaic metaphysics enables an unproblematic union of contradictory principles. For example, the ideal of the Tao has the quality of paratactic aggregate (Alford 1999). A paratactic consciousness allows multiple and divergent things to aggregate (Misfud 2007: 89-107).

Nevertheless, within the Western rationalist philosophical tradition specifically from Plato, thinking in contradictions is perceived as "deviant" logic, archaic, or mystical

thought and is pushed off to the side from the "laws of thought." Nishida's system was often considered absurd and unattainable (Kopf 2003: 150). On the other hand, from a traditional Asian point of view, Western logic is regarded as immature. Chinese philosopher Shu-Hsien Liu says, "Chinese are too rational to separate form from content" (Nisbett 2003: 203).

Chinese philosophy was another major source of inspiration for Nishida's concept of Absolute Nothingness. The number of books of Chinese classics (886 total) in Nishida's personal collection is even greater than those of his Japanese books (561 total) (Dalissier 2009: 213). Nevertheless, many scholars point out that Nishida hardly quotes Chinese or Eastern thinkers the way he cites Western philosophers (Dalissier 2009: 212; Cestari 2010: 329-330). The teachings of Confucius and Mencius were mainly for Nishida internalizations and generalizations on the religion of ritual of the culture of the Chou dynasty in China (11<sup>th</sup> century to 256 B.C.). Nishida, for example, cites from the *Spring and Autumn Annals*, Confucius's answer about what is benevolence and how to overcome selfishness: "Do not see, do not listen, do not speak, do not act, except according to the proper ritual" (Nishida 1998: 24). The purpose of creating rituals and a system of laws on morality in ancient China was, according to Nishida, to reform and improve man's emotions and thereby to rectify man. The same purpose is embodied in the concept of Heaven as being something moral. Thus, ritual is rooted in Heaven. "Chinese culture has been a moral culture, seeing in the social organization of the Chinese people the development of an eternal human nature" (Nishida 1998: 24).

In terms of Nishida's meontological interest, or as Dawis claims more precisely "mu-logical" (Dawis 2006), much more important was the other significant source of Chinese culture, Taoism, where the 'Way of Tao' is clearly said to be non-Being. In chapter 40 of Lao-tzu's *Tao Te Ching*: "The myriad things are born from being. Being is born from non-being." Nishida quotes many citations of Lao-tzu considering and

describing the idea of non-Being, the form of formless, from and into which every entity comes and goes. For example, Nishida cited chapter 14 of the *Tao Te Ching*:

"When one looks for it, it is not visible; it is fine. When one listens for it, it is inaudible; it is infinitesimal. When one reaches out for it, one cannot grasp it; it is subtle. These three qualities cannot be investigated. Therefore, when combined they become one. There is nothing brighter above it, nothing darker below it. It can never be named. Its returning to non-being is called the form of the formless. Its form of non-being is obscure. When one meets it, one does not see its face. When one follows behind it, one does not see its back" (Nishida 1998: 25).

However, according to Nishida, even the Taoist teaching which negates Confucian morality, centered on human society and never went beyond ritual. For Nishida, Taoism was not just philosophy or religion, but humanistic teaching.

"Lao-tzu and Chuang-tzu focused on returning to Nature in itself by negating the ideas of right and wrong, good and evil of human society. Their teachings consisted of a negation of culture" (Nishida 1998: 25).

Non-Being was considered in this naturalistic way of the Tao as a metaphysical beginning (mother) of Heaven and earth. Nishida's concept of Absolute Nothingness emphasizes the dynamic nature of non-Being. Nishida also criticized Lao's followers for degenerating Taoism into something sensual. Nishida claims that from Taoism's metaphysical sense of 'nature,' sensual nature has to be negated as well (Nishida 1998: 25).

The difference with the concept of nothingness in Hinduism and the naturalistic philosophy of non-being in Chinese culture is, according to Nishida, that the previous is an intellectual one. It is a negation of knowledge by knowledge. By contrast, Taoism is perceived by Nishida to have been practical. The way of Tao was not conceived in the direction of an intellectual object, but in the depths of spiritual practice. It was a negation of practice by practice.

From Nishida's point of view, the idea of non-Being is most adequately represented in Japanese culture. Nishida perceives the Japanese form of culture as artistic and

aesthetic, similar to the culture of ancient Greece. But unlike intellectual Greek culture, Japanese culture is a culture of emotion; in Nishida's words it is culture of "pure feeling." Even the Japanese verb *omou* involves both the notion to think and to feel (Kasulis 2008: 28). Nishida claims that Japanese culture of emotion has "the form of the formless, the sound of the soundless" (Nishida 1998: 31).

As Nishida emphasizes, feeling has primarily a temporal character because an object of feeling can be neither intellectually determined nor spatially frozen. Thus, the Japanese culture of feeling acts within time. Time in Nishida's philosophy never means just a passing flow, but a formless unity where each and every point has the meaning of the whole, and the previous and following moment must be united in some sense like temporal unity in music. Nishida makes the remark that Japanese culture is *rhythmical*.

"(T)ime has the form of the determination of what is not determinate 'the form of the formless'. In time, the formless determines form. In such a sense, time is the mirror surface of infinity. Time exists as a self determination of absolute nothingness" (Nishida 1998, 31).

According to Nishida, this Japanese temporal aspect of non-Being which is infinitely moving and intersecting eternity lacks the culture of non-Being found in Taoist culture. "It was still imprisoned by non-being-that is, by the form of non-being. Its present was not a moving one but only an indeterminate present" (Nishida 1998, 34).

Nishida attempts to find features of philosophy of non-Being also in the Western thinking tradition. According to Nishida, Plato's ideas, etymologically "forms", perceived as objects of reason can be regarded as formless, just as the formative principles of this actual world (Nishida 1998: 21). In such a sense, both Plato and Aristotle also regarded "matter" as non-Being, because they found a true being always on the side of "form" (Noda 1954: 350).

Another significant philosophy of non-Being Nishida perceives in Neo-Platonism of Plotinus, where the ultimate "one" was conceived to be non-Being in the sense that it

transcends all beings; Nishida also perceives this in medieval Christian theology of Pseudo-Dionysius the Areopagite. Pseudo-Dionysius the Areopagite wrote about God as follows:

Ascending higher, we say . . .  
not definable,  
not nameable,  
not knowable,  
not dark, not light,  
not untrue, not true,  
not affirmable, not deniable,  
for while we affirm or deny of those orders of beings  
that are akin to Him  
we neither affirm nor deny Him  
that is beyond  
all affirmation as unique universal Cause and  
all negation as simple preeminent Cause,  
free of all and  
to all transcendent.

(Abe 1969: 62 cites Elmer O'Brien tr. 1964: 86-88)

However, Nishida claims that the person of a Christian God is not nothingness but a most self-aware, self-determined being (Nishida 1998: 23). Fundamental to Nishida's philosophy was the view of renaissance philosopher and mathematician, Nicolas of Cusa. Nishida stands by this doctrine that God, the Absolute Maximum, opposes and coincides with the Absolute Minimum and nothingness. Cusanus describes his idea of God as the infinite sphere which has no circumference, and every point, every act of consciousness, is a center radiating in infinity (Nishida 1987: 53-54). This idea correlates with Nishida's concept of the self-determination of absolute-self and absolute present within the historical and creative world (Nishida 1987: 88-89). By using a mathematical description of such a world Nishida, as well as Cusanus, use the idea of a circle which has no center, because its center can be found everywhere (Nishida 1970: 167).

Very interesting is Nishida's claim that scientific positivism in one respect signifies another negation of actuality and suggests a philosophy of nothingness, because the physical world of objective reality is constructed with the principle of negation of everything subjective.

"For science, as it affirms the actual world in its noematic direction (concerned as it is exclusively with cognition of the objective world), ends up negating both the "Idea" and the "person." But science also stands in diametrical opposition to Hinduism and Taoism, which negate the actual world in the direction of noetic determination (in the spirituality of knowledge itself). However, absolute negation becomes absolute affirmation-dialectically, the absolute negation of actuality functions as its absolutely reciprocal affirmation. It has the form of actuality qua reality. Thus, while positivistic science regards the actual as thing, Buddhism (which thinks in such dialectical terms) sees it as mind" (Nishida 1998: 27).

For Nishida, positivism and Western rationalism with its negation of subjectivity is just another form of metaphysical orientation which is in contrast with the reason 'nous' of Greek philosophy. The Greeks, according to Nishida, did not deny the subjective dimensions of reality. Rather, they thought of reality in terms of Logos from the nature of Logos in the actual present (Nishida 1998: 27-28).

Philosophical interest in the East Asian idea of nothingness appears in the West in Heidegger's philosophy (May 1996; Ma 2008). Heidegger personally knew Nishida's students (Tanabe Hajime, Miki Kiyoshi, Nishitani Keiji, and Kuki Shuzo) and he was familiar with German translations of Chinese Taoist and Japanese Zen classical texts. As, for example, Reihard May presents in the book, *Heidegger's Hidden Sources*, there are remarkable similarities between locutions in which Heidegger develops the *topos* of *Nichts* relative to the *topoi* of *Sein* and *Lichtung* of Nishida's ideas, although this influence is not acknowledged by Heidegger (May 1996: 89). Heidegger influenced Sartre's famous philosophical treatise, *Being and Nothingness* (*L'Être et le Néant*) (1943). Sartre conceives Nothingness and Being as complements where Nothingness must be given at the heart of Being (Sartre 1969: 22). From a Sartrean perspective, the nothingness of the self is the existential condition which negates essentialist notions of the self (Elwood 1994: 310). Contemporary phenomenologist professor

Hogenová in her analysis of performance in the Heideggerian sense describes being as "colourless nothingness;" it "is" unmeasurable, it "is" even more than particular beings, which receive their existence on the horizon of being" (Hogenová 2005: 81, author's transl.). Performance then, according to Hogenová, "demands this giant step to enter into the nothingness of being, into the nothingness which is frightening because it is shapeless and reminds of death" (Hogenova 2005: 81, author's transl.).

### 3.3. The Logic of Being

Nishida correctly perceives that the mainstream Western thinking tradition is based on the metaphysical philosophy of being. The concept of one, immovable, rational, and moral divinity was introduced by a moralist from Grecian Italy, Xenophanes (around 570-480 B.C.). Xenophanes, rhapsodian and sarcastic poem writer was, as Feyerabend points out, not even regarded as a philosopher. Aristotle called him, "agroiko'teros" ("somewhat uncouth") and advised to forget about his ideas, because he made nothing clear (Aristotle *Metaphysica* 986b27). Xenophanes criticized anthropomorphic, contradictory, and amoral features of Olympic gods and introduced his concept of a rational deity with the following fragments:

"One God alone is the greatest, the greatest of Gods and of men  
not resembling the mortals, neither in shape or in insight." (B 23)

"Totally vision, totally knowledge, totally hearing." (B 24)

"But without effort, by insight alone, he moves all that is." (B 25)

"Always without any movements he remains in a single location  
for it would be unseemly to walk now to this, now to that place." (B 26)

The fragment B24 describes Xenophane's abstract divinity as the omnipresent, omnipotent, omniscient perceiving mind. According to Feyerabend, Xenophanes did not replace anthropomorphism of Homeric gods, but enlarged certain human

features and created a super-intelligent monster (Feyerabend 1999: 54). This intellectual god was later in the European intellectual world identified with the Hebrew God of Creation or for Christians the Father of Jesus. Such a move can be traced with many Church Fathers, for example, in the exegesis of Xenophanes by Clemens, in the Platonism of Origenes and Augustine, or in the Aristotelism of Thomas Aquinas. Adopting an intellectual god for the explication of Christian faith allows the application of formal rationality, thereby helping to eradicate paganism and to overcome myths (Markoš et al. 2009: 12).

Feyerabend believes that it was history and not argument that replaced the earlier ideas about Olympic gods. Feyerabend calls this process 'the odyssey of occidental metaphysics' and claims that rationalism and science started with Parmenides (Feyerabend 2009: 186). Parmenides made an assumption that Being is and not-Being does not exist. The statement Being is --, is according to Feyerabend, the first conservation principle of the West. Parmenides' One was the ultimate Being and ultimately identical with thinking. Parmenides argued that only Being exists and that change is an illusion. Since the only possible transformation of Being is into non-Being, but since non-Being does not exist, there can be no change. Being can have no subdivisions, hence Being is continuous. Feyerabend urges those who find Parmenides's arguments "primitive and linguistically absurd" to consider how many modern scientists repeat his general ideas without his rigor and coherence. "Nineteenth century point mechanics posited a 'real' world without colors, smells, etc" (Feyerabend 1990: 61-62).

Feyerabend had much more sympathy for the philosophy of ancient atomism (i.e., Leucippus, Democrites, Empedocles, Anaxagoras), which could be shortly described as Being is many and moves into not-Being.

According to Feyerabend, this sense of physics was much closer to common sense than Parmenides' rejecting of change.

"According to Leucippus the void is no-Being and the void exists - obvious nonsense, from a modern logical point of view. Yet the nonsense was understood and gave a rise to a movement that not only lasted for over two millennia but also produced 'real knowledge'-- at least according to those who are now using 'reason itself as a source'" (Feyerabend 1999: 17).

Criticism of Xenophanes and Parmenides occurs in many of Feyerabend's works. Feyerabend maintains that Xenophanes's immovable One and Parmenides's Being stop the historical and dynamic world of nature of archaic Greek and Ionian philosophers for almost twenty-three centuries until the rise of evolutionary theories in biology and quantum theory in physics (Feyerabend 1991: 114). One of the main characteristics of Feyerabend's philosophy is the opposition against the rationalist approach of objective reality grasped by eternal principles firstly introduced by Parmenides. Also for Nishida it is a world perceived in such a way that is just an illusion. "The 'real world' begins from what I call action. The mere world of intellectual objects may, in short, be a world of dream" (Nishida 1970: 2). Nishida's philosophy perceives the reality of the world as "everyday experience" without further intellectual reasoning and conceives the world as a dynamic historical creative place of contradictory identity in the place of Absolute Nothingness, which embraces and takes everything as its self-determination.

### **3.4. Absolute Nothingness in Nishida's Philosophy**

The most direct and significant source of influence on Nishida's philosophy of Absolute Nothingness was taken from the teachings of Buddhism. Nishida knew 'True Pure Land Buddhism' from the religious practice of his mother and Zen Buddhism through his own practice of *zazen*. Nishida started to practice Zen meditation from 1896 as a young teacher of German language, mathematics, and philosophy at the

Junior College at Kanazawa and was encouraged by his boyhood and lifelong friend, Suzuki Daisetsu (1870–1966). He became famous by popularizing Zen in the West and had attained enlightenment -“seeing (into) one’s nature” (*kenshō*-synonymous with another Zen term, *satori*) - in Kamakura in 1895. Nishida practiced under the guidance of Setsumon Genshō (1850–1915) and other excellent priests. In 1903, Nishida passed the *kōan* “Mu” (nothingness, the famous *kōan* of Jōshu's dog and its Buddha-nature), which indicated that he had experienced *kenshō*. But Nishida felt unsatisfied and wrote about the doubts of his experience to Setsumon and Suzuki. Nishida abandoned his formal Zen practice in 1904 and thereafter solely devoted himself to philosophy. It was Suzuki Daisetsu’s opinion that in 1923 Nishida’s final breakthrough in Zen took place nearly twenty years after he had ceased his practice. Nishida said to Suzuki: “My thoughts have reached the point where they cannot be explained by the framework of conventional philosophical language” (Kozyra 2007: 73). This central concern with Buddhism can be detected at every stage of Nishida's philosophy (Noda 1954: 345). Furthermore, this was openly expressed by Nishida himself with explicit quotations of various Buddhist authorities in his last essay, *Nothingness and the Religious Worldview*, finished shortly before his death in 1945.

Nishida's philosophical approach to Zen was expressed in a letter he wrote to his disciple Nishitani Keiji in 1943. “It is true that my philosophy is related to Zen experience. Most people do not know what Zen is. I believe that the essence of Zen is grasping the reality itself. I always wanted to translate Zen experience into the language of philosophy, although I may not have succeeded in my attempt. But to do so was my most important ambition from the time I reached thirty” (Kozyra 2007: 73).

Nishida, like Suzuki, directly maintains that Zen has nothing to do with mysticism and emphasizes the idea of the Zen master, Nan-ch'uan, who teaches that "the ordinary mind is the way" (Nishida 1987: 90). Professor Carter makes another distinction and specifies that Christian mystics vehemently resist talk of an identity between the

Creator and the created and instead speak only of a 'union,' whereas Taoist, Hindu, and Buddhist mystics speak of the identity or oneness of all things (Carter 2009: 2).

Contemporary Japanese philosopher, professor Ueda Shizuteru, who is considered to be a third generation of the Kyoto School and a disciple of Nishitani Keiji, goes in his book, *Die Gottesgeburt in der Seele und der Durchbruch zur Gottheit. Die mystische Anthropologie Meister Eckharts und ihre Konfrontation mit der Mystik des Zen-Buddhismus* (1965) goes beyond both Christian mystic Meister Eckhart's and Nishida's ideas by describing Zen as a 'non-mysticism,' which, nevertheless, includes mysticism in its dynamic base (Carter 2009: 15).

### **3.5. An Inquiry into the Good**

Nishida's lifelong philosophical interest, which was developed in several stages, takes on the question of what is ultimate reality. Nishida wrote from the position of ontological pluralism in a preface to his work, *Fundamental Problems of Philosophy* (1933-34) and wrote that reality can be understood in various ways. For example, rationalism takes as reality the objects of thought, as the ideas of Plato. Empiricism emphasizes the objects of sensation to be real. Nishida in his maiden work [Zen no kenkyu], *An Inquiry into the Good* (1911), develops an approach to the radical empiricism of William James and his experiential ontology of immediate experience encapsulated in a notion of "pure experience," which Nishida later also called "everyday experience." In this phase of Nishida's philosophical developing, pure experience [*junsui keiken*] was the basis of ultimate reality which was supposed to overcome the dichotomy between subjectivity and objectivity of Western philosophical tradition.

Pure experience is awareness of an absolute, unifying principle of all of reality. Nishida describes pure experience as follows:

"To experience means to know facts just they are, to know in accordance with facts by completely relinquish one's own fabrications. What we usually refer to as experience is adulterated with some sort of thought, so by *pure* I am referring to the state of experience just as it is without the least addition of deliberative discrimination" (Nishida 1987: 3).

Pure experience, as explained by Nishida, is such an experience without further intellectual reflection. It is experience of "facts just as they are" prior to the subject-object distinction and prior to cognitive reflection or conceptual analysis. The concept of pure experience was incorporated into the Nishida's philosophy because it preserves some important features of general aspects of Eastern thinking and especially the Zen Buddhist practice of [mushin] "no-mind, " of seeing the world without thematizing it. Subject and object are in this view undifferentiated and they are the two relative sides of one reality.

As professor Murata points out, with this view of Nishida's it is not clear how to conceive the relation between a pure experience and other types of experience, especially with regards to reflexive experience in which subject and object seem to be separated (Murata 2007b: 4). Nevertheless, according to Nishida's explanation, the difference can be conceived that the latter is strictly intellectual and static, because it is grasped by some universal metaphysics or abstract principles. Meanwhile, pure experience of ultimate reality contains the unity of knowledge, feeling, and will, which is what makes pure experience dynamic and active. Activity is not expressed in this view by some agent from which activity arises, but in pure experience of unity of subjective and objective activity itself is what is real (Nishida 1987: 58). Nishida paraphrases Descartes's "*cogito ergo sum*," "*I am acting therefore I am*" and Berkeley's, "*esse est percipi*" to "*to be is to act*."

As Nishida states it is obvious that "feelings of pleasure and displeasure are present consciousness: and the will, though oriented toward a goal in the future, is always felt as desire in the present" (Nishida 1987: 5). But the will does not represent in Nishida's philosophy some kind of power. The will represents the experience of shifting from one mental image to another. "To will something is to direct attention to it" (Nishida 1987: 21). This attention appears only in unity of subject and object. In Nishida's second major work, *Intuition and Reflection in Self-consciousness* (1917) and in *Art and Morality* (1923), he develops Fichte's concept of the self as a creative act - *Tathandlung* - the principle of the unity of cognition and reality. Absolute will started to be used synonymously with pure experience where "I" finds itself in a context of action (Heisig 2001: 57; Abe 1990, xxxii).

In *An Inquiry*, Nishida's use for such a mental state of dynamic unity of knowledge, feeling, and will is expressed by him with the notion of G.F. Stout's "the perceptual train" (Nishida 1987: 6) and points to William James's essay, *The Stream of Thought*, where the present can always be seen as part of great system and development through differentiation is the activity of still greater unity (Nishida 1987: 10). Thus, in Nishida's view, individual subjective and objective representations cannot be separated and perception cannot be passive, but must include active, constructive elements (Nishida 1987: 48). Such ideas of Nishida correspond with Feyerabend's notion of a paratactic perception of reality.

Nishida presupposes objective reality as a model of the external world, as described by the Western scientific view (where thinking is emphasized and independent of our feelings and volition; and where the object loses its secondary qualities) is merely an abstract concept, which in concrete form actually does not exist.

"When viewing a cow, for example, farmers, zoologist, and artist have different mental images. Depending on one's feeling at the moment, the same scenery can appear resplendently beautiful or depressingly gloomy" (Nishida 1987: 49).

True reality may be, according to Nishida, very well expressed by poetry or any kind of art and also by anthropomorphic explanations of the world by ancient cultures (Nishida 1987: 50). Nishida maintains that for Homer's Greeks, regarding nature as alive and full of gods, the true meaning of the present appeared just as it was (Nishida 1987). Nishida sought inspiration for such a view in Schiller's poem, *Die Gotter Griechenlands*. It is important to note that such an assertion is identical with Feyerabend's standpoint. Feyerabend found support for his assumption that our perceptual world is a mental construct and that different kinds of such mental constructs are possible in Nietzsche's philosophy of nature (Feyerabend 2009: 330). Nietzsche in his *Wahrheit und Lüge im Aussemoralische Sinn* says that:

"The waking day of a mystically excited people as are the Old Greeks is indeed more similar to a dream than is the day of a sober mind; and this is due to the always present miracle as assumed by the myth. When every tree can now talk as a nymph, or when a god can rob virgins under cover of a bull, when the goddess Athena is suddenly a person, driving side by side with Pisistratos in a splendid carriage through the market places of Athens - and this the honest Athenian did in fact believe - then like in a dream everything is possible at any moment and the whole of nature surrounds man as if it were only a masquerade of the gods" (Feyerabend 2009: 330 cites Nietzsche 1873).

Feyerabend in his analysis of the perception of reality in archaic Greece claims along with Bruno Snell that the "subjectivity" of archaic man can be seen from our point of view as a transit station for events (ideas, dreams, feeling) (Feyerabend 1987: 97). Objective reality is, according to Feyerabend, the result of idiosyncratic historical, metaphysical, and scientific processes of occidental rationalism. The theory of reality in Feyerabend's philosophy (influenced partly by Wittgenstein's and Sapir-Whorf's linguistic philosophical reflection) determines our perception and when theory or worldviews change, our perception may also change along with it (Feyerabend 1993: 164). Feyerabend as Nishida presupposes that perceiving and understanding reality cannot be merely intellectual, rather it is always inseparably emotional (Feyerabend 2011: 13). That is why Feyerabend acknowledges proto-philosophical ideas and scientific cosmologies, anthropologies, or astronomic concepts incorporated, for

example, in archaic epics or early Greek dramas for being not only factually adequate, but also emotionally and ethically satisfying.

Nishida in *An Inquiry into the Good* developed the system of pure experience, which represents the basis of ultimate reality. Nevertheless, this work already implicitly contains all main ideas which appear later in Nishida's maturer philosophy. For example, in the essay *The World as Dialectical Universal* (1933), Nishida conceives reality from the point of a concrete, historical process. "That which I called...the world of direct or pure experience I have now come to think of as the world of historical reality. The world of action-intuition—the world of poiesis—is none other than the world of pure experience" (Nishida 1990: xxxiii).

Already in *An Inquiry*, Nishida mentioned Heraclitus's thought "all things flow and nothing remains still" (Plato *Cratylus* 401,d) in order to stress that the true reality should be conceived as a succession of events that flow without stopping; this is expressed in Heraclitus's fragment B 53 where it is said that "strife is the father of all things." In Nishida's interpretation, reality is established from a unity of mutually contradictory principles (Nishida 1987: 54-56). Such unity of oppositions was developed by Nishida in the next stage of his philosophy where pure experience was replaced by his concept of self-identity of the absolute contradiction and by his logic of self-determination of place of absolute nothingness.

### **3.6. Nishida's Logic of the Place of Nothingness**

The crucial change of Nishida's thought appears during the last two years of his active teaching at Kyoto University in the article, *Basho* (1926), and especially with the publication of his sixth book, [Hataraku mono kara miru mono e] *From the Acting to the Seing* (1927) when Nishida was already fifty-seven years old.

Nishida's early period represented by his famous and very popular work, marked the beginning of original philosophy in Japan; *An Inquiry into the Good* is above all a theory of consciousness, reality, and ethics. This book was criticized as a kind of psychologism or form of Fichte's idealistic voluntarism (Dilworth 1970: 36; Heisig 2001: 61). With the next stage, Nishida came closer to the more traditional realm of Western academic philosophy by introducing his own logic regarding articulation of Eastern ideas; at this point his philosophy started to be criticized by his students (Tanabe Hajime, Miki Kiyoshi) as a position of intuitionism (Kasulis 1987: 72). In the introduction to *From Acting to Seeing* Nishida maintains as follows:

"It goes without saying that in the spectacular development of Western culture, which took form as existence and becoming as good, there are a great number of things that must be admired and learned, but at the core of Oriental culture that has nourished our ancestors for thousands of years is there not hidden something like "seeing the form of the formless, hearing the sound of the soundless?" Our hearts cannot help but search for this sort of thing. I would like to attempt to provide a philosophical foundation for this demand" (Wargo 2005: 3).

Nishida's original idea about the logic of the place of nothingness [mu no bashoteki ronri] makes him famous in the philosophical world. The idea of consciousness including the "spatial" aspect of *basho* (the place for all being which is not itself being) as a basis of true reality was in Nishida's philosophy inspired, for example, by Plato's notion of *chora*, the receptacle of all becoming (*Timaeus* 49a); Aristotle's assertion that the intellectual soul is a *topos* of forms (*De Anima* 429a28-29); Husserl's notion of *Bewusstseinsfeld*, which describes consciousness as the field where reality of the external world is constituted by the mind; or Emile Lask's *Gebietskategorie* or "category of region" or "domain" (Davis 2010). Further inspiration also came from a physical concept of field of force, seen by Einstein as a cosmic field (Noda 1954: 350). Nishida's place of nothingness furthermore corresponds with a Mahayana Buddhist term, śūnyatā, experience of emptiness. The word śūnya means "void," "open," "without," "nothing," "nonexistent." The term

śūnyatā therefore connotes emptiness, openness, nonexistence, or relativity. "Unlike modern western philosophical notions, it presupposes practice, which entails concrete ethical behavior, wisdom, and meditation exercises (the three moments of *śīla*, *samadhi*, and *prajñā* in the Buddhist path of salvation)" (Cestari 2010: 332-333).

In Nishida's philosophy the place of absolute nothingness does not mean the opposition or lack of being (relative nothingness), rather it represents the place in which being and nothingness are constituted or the *basho* that includes being and nothingness;" also simply called by Nishida the "place of nothingness" [mu no basho] (Davis 2010). *Basho* is the dynamic universal of active consciousness and is expressed in the title of the book: "From that which is active" [hataraku mono] to that which is seeing [miru mono]." Seeing appears through action. Nishida in that sense often repeats in his writings the phrases "seeing without seer" or "hearing without hearer."

Nishida's logic is based on a rejection of Aristotle's logic of Hypokeimenon (substrate, first substance), where grammatical structure is the subject that cannot become predicate. Nishida refers to Aristotelian logic as the logic of objects. But Nishida's ultimate reality, *basho*, conceived as an active field of consciousness is not contemplated objectively and cannot be expressed by a logic of substance. That is why Nishida, contrary to Aristotelian logic, defines the place of Absolute Nothingness in a logical sense as a predicate which does not become a subject. Nishida calls his discursive form among others logic of predicate or logic of noetic acts (Nishida 1987: 59). Nishida's logic differs from Kantian transcendental logic from the point that ultimately it is not defined subjectively. As Feenberg cites, Nishida's non-dualistic view is expressed as: "[t]he self and the world do not merely oppose one another as coordinates, rather they correspond to one another in a contradictory self-identity" (Feenberg 1999).

Feyerabend criticizing Western metaphysics and scientific realism also maintains that the dichotomy between the subjective/objective and the corresponding dichotomy between descriptions and constructions is much too naive to guide our ideas about the nature and implications of claims on knowledge (Feyerabend 1999: 114).

Nishida attempted to develop and clarify his logic of place for the rest of his life even while being aware of the difficulties concerning this task. Nishida claims the following about his philosophical work: "I have always been a miner of ore; I have never managed to refine it." Nevertheless, his attempt has not been understood by the academic world. His concept of *basho* has been criticized as merely an object of thought or mystical intuition and his logic of predicate was perceived as irrational because of its incompatibility with formal logic (Kozyra 2007: 79). The founder of Japan's literary criticism, Kobayashi Hideo (1902–1983), perceives Nishida's thoughts as "a bizarre system that is neither in Japanese nor, of course, in a foreign language" (Tremblay 2009: 256).

Even so, Nishida is regarded as a founder of Japanese philosophy who opened up a dialogue between Japan and the West in the field of comparative philosophy and philosophy of religion. Nishida's final essay, *The Logic of Place of Nothingness and Religious Worldview*, finished only a few months before his death (Nishida died in 1945 in Kamakura) has come to be regarded as the principal text of the Kyoto School and the essence of Nishida's thoughts on his logic of 'Basho,' metaphysics of Nothingness, existential ontology, epistemology, Buddhist religion, and Christian theology. Nishida established in Japan an original discipline of philosophy of Absolute Nothingness developed throughout hundreds of years by many of Japan's philosophers (K. Tanabe, K. Nishitani, K. Miki, M. Abe, and most recently by U. Shizuteru or E. Nishimura). As Davis states, since the mid 1980s, there has been a growing interest in the East/West dialogue and the significance of the group continues to grow, especially in American departments of religion and philosophy (Davis 2006). Concerning those topics of Nishida's work, enormous amounts of books

and research articles have been centered on them, for example, the Nanzan Institute for Religion and Culture in Nagoya. It is obvious that the biggest influence of Nishida's philosophy is undoubtedly in this field. On the other hand, Feyerabend is primarily known as a philosopher of quantum mechanics and theoretician of science. Feyerabend's comparative philosophy is represented above all by his original concept of paratactic aggregate of archaic Greece and his analysis of transition to a hypotactic system of classical Greece.

The motivation for Nishida's and Feyerabend's pluralistic approach differs with both of these philosophers. Feyerabend uses pluralistic philosophy for his criticism of the superiority of Western culture, imperialism, and the excellence of Western science; meanwhile Nishida's commentators agree that Nishida does not argue the case for cultural pluralism, rather he tried to link Japan and the world. Similarly Nishida's pluralistic philosophy aims to overcome the philosophical problems of the West by way of Japanese philosophy (Cheung 2009: 168).

## **Part IV. The World as Historical and Creative Process – Nishida's and Feyerabend's Philosophy of Science**

Until the early 1930s, Nishida's philosophy moved into the third and last stage where he paid much more attention to science. Concerning the philosophy of science Nishida wrote, *Logic and Life* (1936), *The Empirical Sciences* (1939), *The Objectivity of Knowledge* (1943) and five articles from 1945-*The World of Physics, Logic and Mathematics, Space, Life, and The Philosophical Grounding of Mathematics*. Nishida's work from that period reflects the situation of the first half of the 20<sup>th</sup> century when radical paradigm shifts were taking place in theories of mathematics and physics (Noe Keiichi 2009: 121).

At this time it is also necessary to mention the context of Japan's history during Nishida's life. Nishida lived after the Meiji Restoration (1868) when a sudden and massive influx of Western science and technology accelerated industrialization in Japan and brought the most dramatic and unprecedented transformation of Japanese economy, politics, education, and culture (Feenberg 1999). The main reason for such a radical transformation was the reaction to the demonstration of power and technological superiority, which was made in 1853 and 1854 by four US navy warships with 10-inch cannons. With them the American, Commodore Matthew C. Perry, requested at Edo Bay that Japan open to trade with the West. These warships are known in Japan's history as "*kurobune*" (black ships) for their black color and black clouds of smoke, and they are symbols of the end of Japan's isolation. Modernization of Japan was mainly in the name of adopting modern Western weapons as a defense against other unwelcome visitors and brought about major change in Japanese society. "[I]n order to adopt modern Western weapons, it was necessary to introduce various industries connected with military technology. In order to build and sustain those industries it would be also necessary to adopt the western civilization that formed the background for those industries" (Murata 2007a:

160). Such a radical shift even brought with it the change of perceiving of time in Japanese society from the seasonal time to Western time" (Murata 2007a: 160-177; Hashimoto 2009: 7-49). With the introduction of Western time and calendar system in 1873, Japanese society also introduced modern work discipline, which required strict punctuality in many quarters of society" (Hashimoto 2009: 8). As Hashimoto's research demonstrates with many examples in his *Historical Essays on Japanese Technology* (2009), a sense of punctuality did not exist in Edo society and since the early Meiji period has been strongly institutionally encouraged. Feyerabend comments on this period of Japan's history as follows:

"The members of the Japanese enlightenment of the early 1870s, Fukuzawa among them, now reasoned as follows: Japan can keep its independence only if it becomes stronger. It can become stronger only with the help of science. It will use science effectively only if it does not just practice science but also believes in the underlying ideology. To many traditional Japanese this ideology-*the scientific worldview*- was barbaric. But, so the followers of Fukuzawa argued, it was necessary to adopt barbaric ways, to regard them as advanced, to introduce the whole of Western civilization in order to survive. ...science is accepted as a true description of the world not because it *is* true description but because teaching it as such will produce better guns" (Feyerabend 1987: 86).

As professor Murata points out, after criticism by Nishida's students (Tanabe, Miki), Nishida in this third stage realized that his philosophical theory of consciousness encapsulated in "pure experience" or the logico-metaphysical framework of "place of nothingness" was too theoretical; these abstract concepts of a merely transcendental intellectual world did not adequately reflect concrete human life in a concrete social-historical situation. Therefore, Nishida started to articulate his thoughts from a concrete and practical point of view (Murata 2007b: 5). In this period, Nishida characterizes ultimate reality from the aspect of human and social activity within the historical world and emphasizes concrete and dialectical dimension of his philosophy and logic. Nishida expresses this sentiment in this statement from 1940:

"I wonder if even western logic is anything more than one special feature of the life of history.... Things like formal, abstract logic will remain the same everywhere, but concrete logic as the form of concrete knowledge cannot be independent of the specific feature of historical life" (Heisig 2001: 36).

The main core of Nishida's late philosophy is an escalated emphasis of his earlier thought that true reality is a historical, active, dynamic process of interaction between true self (active subject) and objective reality. True self means an acting self and that true reality is the object of an acting self (Nishida 1970: 1). Nishida conceives truly objective as that which resists our action, which conflicts with an acting self. An acting, dynamic individual is then in Nishida's philosophy, both subject and predicate, both individual and universal (Nishida 1970: 28). This active existence occurs in time, which means that it is determined by the present. But at the same time, it destroys the present and is a process of changing it. Thus, the world of change is the world of coming into being and passing away. This world of change can be comparable to the world of Heraclitus *panta rhei*. With this view of Nishida's, our active existence not only determines the future, but changes the meaning of the past (Nishida 1970: 11). Nishida perceives the same way of existence even for the history of nature, where history must always possess a future: "It is the self-determination of the eternal future" (Nishida 1970: 120).

Nishida conceives the structure of change as a continuity of discontinuity. Nishida's dialectical historicity does not provide a higher synthesis as does, for example, Hegel's self-expression of the "absolute spirit" or Comte's unilinear historical philosophy. Feyerabend's historicism avoids higher synthesis as well. According to Feyerabend's epistemology, one historical stage (i.e., worldview, scientific theory) is finished and is replaced by another. It can be perceived as a stream of historical stages placed side by side.

A truly active self has in Nishida's philosophy meaning only in relation and mutual determination to other individuals. This mutual determination of individuals as well as determination of the individual itself has to occur within concrete time, within concrete reality, and within a concrete place as the centre of activity. This is again Nishida's determination of the place [*basho*] as a unity of absolute contradictories

(Nishida 1970: 6). According to Nishida, this unity of contradictories determines individuals in the case of one activity giving birth to another activity. It determines activity (Nishida 1970: 23). Nishida tells us, "Human action has always a creative function" (Nishida 1970: 148). Nishida describes the ontological foundation of a historically creative world with his famous phrase "*from that which is made to that which makes*" [*tsukuraretamono kara tsukurumono e*]. In short, we are active beings in a social and historical world which is the self-determination of the present. With such a creative process of the social and historical world there is no place for objective knowledge or objective reality. Therefore, Nishida argues that reality in Greek philosophy is not the same as reality in medieval philosophy, which in turn is not the reality discussed in modern science (Nishida 1970: 38).

"Modern science considers reality to be that which moves and acts in time. However, reality in Greek philosophy was logos. In contrast to modern science, Greeks considered that which transcends time, the eternal, to be true reality, and on the contrary, that which moves in time to be imperfect. Aristotle contended that perfect motion must be circular. Needless to say, the reality of modern science cannot be discussed in terms of this idea of reality as logos" (Nishida 1970: 39).

For Feyerabend, who agrees with Kuhn's concept of shifts of scientific paradigms, different realities exist even within science, for example, in Galilean physics, in Newtonian physics, in relativistic mechanics, and so on. However, Feyerabend criticizes Kuhn's book, *The Structure of Scientific Revolutions* (1962) for attempting to link historical processes in science mainly to sociological rules.

Because we are active and creative, our cognition must be also a creative activity. Cognition is expressed in Nishida's terminology in terms of "acting intuition," which in turn replaces "pure experience." As Murata clarifies, active intuition in Nishida's philosophy is such an act where "the subject is not a passive observer or a detached theoretician, but commits himself or herself to and is co-constructed with an object" (Murata 2007a: 157). Objectivity determines subjectivity and knowledge is a result of their mutual interaction as a social and historic event. Therefore, knowledge is

historically determined. This is why Nishida maintains that even scientific knowledge of nature can be regarded as a social-historical construct, and therefore the concept of nature in modern science can even be called the result of dialectical development of history (Nishida 1970: 73-74).

"Even Newton's physics, which became the cornerstone of the vast development of modern physical science, if seen from the dynamically human standpoint of ordinary experience, turns out to have been only an "opinion," as present-day relativity and quantum mechanics are bringing out. Newton conceives of absolute time and space-absolutes that are relative to the human act of measuring. The French physicist Paul Langevin (1872-1946) has indicated that the quantum theory does not negate determinism, but only makes it more humanly and concretely precise" (Nishida 1987, 114).

Feyerabend claims that: "[t]he assertion that some things are independent of research, or history, belongs to special projecting mechanism that 'objectivize' their ontology; it makes no sense outside the historical stage that contains the mechanism" (Feyerabend 1999: 139).

Nishida continues by reasoning that our perception is also a form of action. Our seeing of things through action is always a process of things being formed into the unity of subject and object. Therefore, our sensation may be also regarded as a product of thinking.

"In the case of sensation, the person is also impulsive. But the self cannot be entirely omitted as an individual determination. That the self is sensory here does not mean such a thing. Individuals truly become sensory through become scientific. This is the reason why physical science can be regarded anthropomorphically. We became truly sensory as consciousness in general. But even in regard to physical science, as long as physical science is conceptualized, it must contain the patterns of human actions" (Nishida 1970: 74).

Feyerabend borrowed from Wittgenstein the idea that conceptual changes can motivate changes in experience. Like Wittgenstein, Feyerabend was also influenced by Wolfgang Köhler's work on the psychology of perception, which is closely

connected to the rise of Gestalt psychology. However, Feyerabend often criticized Wittgenstein and Wittgensteinians for their lack of historical perspective.

Nishida was influenced by the physicist Percy Bridgman. Bridgman's writings on the philosophy of science advocated for operationalism. According to this position even the most basic concepts are defined through the operations by which we measure them. Nishida argues against the axiom of positivist philosophy by saying that the given is not merely the given. "For the given must exist in some context, and the given must be sought. This means that the knower already functions in the realm of the acting self. The self is not in essence a duration, but something dialectical in itself" (Nishida 1970: 97). For Nishida, what is given is an active interaction between concrete reality and the observer. Therefore, Nishida's definition of objective cognition, respectively natural scientific cognition, is self-determination of an acting self where the self must stand in the context of social and historical determination (Nishida 1970: 98). Nishida applies the same result on perception. Noe Keiichi cites Nishida's statement "perception without theory is blind" (Noe Keiichi 2009: 125). Nishida opposes the position that empirical science is something experiential. According to Nishida, empirical science is already something transformed into an abstract academic discourse (Nishida 1998: 38).

Feyerabend believed that when theories are used to explain observed change that the interpretation of the language of observation also changes. Feyerabend discusses Niels Bohr's idea of complementarity in relation to traditional physics (how to describe the content of principle of complementarity in classical terms). In effect, he compared positivist and realistic interpretations of science concluding that the interpretation of an observation language is determined by the theories which we use to explain what we observe, and it changes as soon as those theories change (Feyerabend 1981, 31). Later, Feyerabend developed this idea into his contextual theory of meaning; a theory which asserts that interpretations of observation sentences are determined exclusively by theories and not the other way around.

Nishida together with Feyerabend support their anti-realist view by results of microphysics within quantum mechanics, where the observation of the experimental observer changes the things being observed. The experimental observation is integral to the physical effect produced. What appears to be human understanding is dependent on this process (Nishida 1998, 49).

Feyerabend also maintains that quantum theory rejects unconditional projections of scientific realism and makes existence dependent on specifically historically determined circumstances. "Molecules, for example, the basic entities of chemistry and molecular biology, do not simply *exist*-period-they *appear* only under well-defined and rather complex conditions" (Feyerabend 1999, 142). According to Feyerabend, scientists are sculptors of reality, but sculptors who are restricted by the properties of the material they use. It is then implied that not all approaches to reality are successful. Reality must react in a positive way (Feyerabend 1999, 215). Feyerabend explains by way of a particular scientific research program in the way that the procedures (e.g., experiment, models, ideas, etc.) that are part of the program reveal how nature responds to the interference (Feyerabend 1999, 239).

"World as described by scientists is the result of a complex exchange between Nature as She Is In and For Herself - and this lady we shall never know - and inquisitive research teams including, possibly, the whole subculture that supports them" (Feyerabend 1999, 239).

#### **4.1. Nishida's and Feyerabend's Philosophy of Technology**

Feyerabend seems to be right about his comment about the prominent position of the philosophy of science in the 20<sup>th</sup> century, a philosophy which attempted to find an all-encompassing theory and methodology for science. Feyerabend claims that although the philosophy of science was a subject with a great past, it had no future. Feyerabend also questioned whether the philosophy of science is needed at all. The

present-day picture of the philosophy of science looks increasingly specialized and splintered without any attempt to offer some universal principles like it did in the 20<sup>th</sup> century.

In our present-day situation according to Feyerabend, it is much more important to reflect on how our world has been transformed by the material, spiritual, and intellectual impact of science and science-based technologies (Feyerabend 1999: 146).

"Its reaction to the transformation (and a strange reaction it is!) is that we are stuck in a scientific environment. We need scientists, engineers, scientifically inclined philosophers, sociologists, etc., to deal with the consequences" (Feyerabend 1999: 146).

For the contemporary Japanese philosopher of science, professor Murata, it is technology which has played an essential role in every event and situation which has characterized the 20<sup>th</sup> century, and it is technology which possesses a fundamental and challenging problem in philosophy (Murata 2007a: 120-21). Murata disproves traditional presuppositions of Western theoretical philosophy, which assert that "technology is an application of science" and that "technology is a neutral means" (Murata 2007a: 123). On the other hand, Murata does not take neither the stand of technological determinism held, for example, by Heidegger where technology cannot be socially, politically, or ethically controlled, nor the position of social determinism where society determines technology. Murata emphasizes a social constructivist approach, which does not commit itself to any determinism.

"Rather, as the developmental process of technology is influenced by various factors, including technological, social, and cultural factors, it is contingently determined, dependent on each context, and we cannot identify which factor is essential, without considering the context" (Murata 2007b: 8).

Murata claims that technology can neither be reduced to a purely instrumental means nor to an essentialist concept that technology has fixed context-independent properties that apply to all technologies. Murata perceives the character of technology as multi-dimensional. Murata uses for other aspects of technology and technological artifacts Nishida's notion of the "otherness" of technology. One feature

of the "otherness" of technological artifacts is that they play a co-actor role. Murata quotes contemporary cognitive theories of artifacts, for example, Gregory's idea of "potential intelligence." According to Gregory, artifacts are considered to be not only the result of intelligent human work, but also the cause of intelligent behaviour by human beings. Murata concludes that in this sense, artifacts can be considered to play a very important co-actor role, making possible intelligent and social behaviour (Murata 2007a: 125-126).

Further aspects of "otherness" of technological artifacts are inseparable from this co-actor role as is usually the case when artifacts behave contrary or differently from the original intent of inventors. As an example Murata uses the Internet, which was originally designed for military use and now is an integral form of communication in our everyday lives (Murata 2007a: 155). Murata emphasizes the creative role of "otherness" in the process of invention:

"Only because of this aspect of otherness, can technology realize continuous creative evolution. Creative and otherness are inseparable. However, as this aspect of otherness is also an origin of failures, we cannot forget that technology necessarily fails" (Murata 2007a: 128).

The "otherness" with its features of failure and creativity is an element of the unknown which cannot be foreseen and cannot be eliminated in the process of technology (Murata 2007a: 128-130). That is also why Murata states that technology cannot be perceived only as an instrumental role in the application of science.

Murata interprets this creative character of technology as an interactive process between users and artifacts, all of which corresponds with Nishida's philosophy. Nishida adopts Franklin's concept of *Homo faber*, man the maker, which emphasizes a productive function of humanity. Thus, in Nishida's view, the real world is the world of production (Nishida 1998: 41). As stated above, the creative process of our historical world is described by Nishida as a concrete real world in which the making of things is in turn made by that which it makes. This creative world moves "from that which is made to that which makes" [tsukuraretamono kara tsukurumono e]. In the

context of technological process it means, according to Murata, that technological artifacts have a chance to acquire new meanings and new developmental directions through the interaction with users. For this creativity of technological phenomena Murata also adopts Nishida's notion of "reverse determination."

Murata emphasizes the contradictory concept of such a world which makes the world unstable and is in a constantly transformational process through the spontaneous interaction of subject and object, of one and many (Murata 2007a: 157). Murata claims that "[t]he process is creative because a new situation is always incommensurable with the old one from which it was formed" (Murata 2007a: 157).

Even though Nishida did not develop the philosophy of technology in the strict sense of the word, Murata sees Nishida's concept as being applicable to concrete technological phenomena like the creative and transformational relation between technological artifacts and users.

Murata in his analysis of the history of technology and modernization of Japan concludes that since the beginning of the history of human technology, the creative process can be found in any given period of technological development; however, there is a distinction from the modern age which brought radical transformation. In the modern age:

"[T]his process is not a random phenomenon, but is institutionalized in socio-technical network that has a particular dynamic in which technologies are continually transformed" (Murata 2007a, 177).

The socio-technical network is represented in Murata's view of the modern world as a contradictory interactive process of two inseparable aspects, technology and society. Technological artifacts radically change our lifestyles as Murata demonstrates in many cases, for example as could be seen in the 1950s and 1960s during a time of rapid economic growth in Japan. Such changes ambiguously solve some problems and naturally create some new problems as well. Murata states with Nishida that "[t]he lack of safety or "risk" is not a feature we can control absolutely and must eliminate

totally, but rather is a feature with which we must get along, as long as we continue to retain creativity in our lives in a historical world" (Murata 2007b: 10).

Such topics are extremely relevant in regards to the present-day situation in Japan, especially after the Fukushima Daiichi nuclear disaster following the Tōhoku earthquake and tsunami on 11 March 2011. All of Japanese society has been affected by this situation, which has brought noticeable changes of behavior within society. For example, inhabitants of Tokyo have remarkably experienced new radical changes in lifestyles caused, for example, by an effort to conserve electric power (e.g., changes in working hours, in dress codes, in traveling, in households, etc.). Present Japanese society is now again aware and demonstrates how technological development can endanger life. For those reasons a transformational scientific and technological process in the modern age should be, for Murata, as well as for Feyerabend, perceived as a fundamental problem within contemporary philosophy.

## **4.2. Nishida's and Feyerabend's Philosophy of Biology**

Nishida's and Feyerabend's philosophy attacks ahistorical, unchangeable, rationalistic rules, as well as the methodological monism and widespread assumption that science is special because of its unique method. Nishida's and Feyerabend's view of the world as a social-historical creative process overcomes dichotomy between subject and object. Subject does not remain opposed to abstract and static objective reality, rather it is co-constructed with object in a concrete historical world. They both wished that the science of the 20<sup>th</sup> century, specifically modern physics and biology, would be more open to such a dynamic view of reality.

In fact, in the beginning of the 20<sup>th</sup> century, theories in biology and medicine were described in a context of historical changes of paradigms and by use of the term "incommensurability" (Oberheim, Hoyningen-Huene 1997: 447-465; Oberheim 2005: 366-367). Oberheim points out that Kuhn's inspiration was the work of a Polish

medical doctor and microbiologist, Ludwig Fleck, who already in 1927 had used the term incommensurable to describe the primary differences between medical and scientific thinking. Previous attempts were to understand irregular, temporarily dynamic phenomena, such as an illness, whereas scientific thinking attempts to understand uniform phenomena, such as atomism in chemistry and energetics in physics (Oberheim 2005: 367). Oberheim further points out that in 1935 Fleck had used the term incommensurable also in relation to a description of conceptual replacements in theoretical transitions of science: "The old concept of disease thus becomes quite incommensurable with the new concepts and is not replaced by a completely adequate substitute" (Oberheim 2005: 367).

Before Fleck, Czech biologist and philosopher Emanuel Rádl in his *History of biological theories* (1913) very clearly anticipated Kuhn's and Feyerabend's conclusions about the historicity of knowledge and paradigmatic shifts of scientific theories. Rádl describes the four-hundred year history of biological theories as a struggle between two predominant views in biology-mechanistic and vitalistic scientific concepts. According to Rádl, both of these concepts and their impact permanently changes throughout history due to the idiosyncratic historical process. Rádl's criticism of scientific positivism and his attitude toward the philosophy of science is also very close to Feyerabend's position. Both replaced scientific rationality with a historical and narrative epistemology and also with the philosophy of science. Rádl (and later Feyerabend), claims that any accepted idea, hypothesis, or theory can be overcome, but it can be again fruitfully reborn in a new historical context.

Rádl as a historian of evolutionary theories predicts the rapid decline of Darwinism by his statement that Darwinism is dead. According to some interpretations by contemporary philosophers of biology, this position of Rádl's should not be evaluated as his mistake, but as "the result of a thorough analysis and diagnosis of contemporary Weismannian neo-Darwinism as a factual denial of Darwinian reformation. Original Darwinism tried to transform biology into a *historical science*,

whereas neo-Darwinism was a retrogressive rationalization, a re-channeling of evolutionary thought back to the realm of *objective* science" (Markoš et al. 2009: 101).

Feyerabend in his later work criticized exactly this objectivistic approach found in the biology of the second half of the 20<sup>th</sup> century, where predominate interpretations of nature are influenced by deterministic theories in microbiology, for example by Monod's objectivism (Feyerabend 1999: 5-8).

Darwin and evolutionary theory played in Japan's modernity complex and conflicting roles in the changing epistemologies of modern biology, social sciences, religion, and philosophy (Godart 2009). Nishida mentioned evolution already in *An Inquiry into the Good* (1911), where he criticizes the scientific trend of mechanistic explanations of nature. Nishida asserts that the real nature that we actually experience is never an abstract concept nor is it merely an activity of uniform mechanical energy (Nishida 1990: 70).

"Animals are animals, plants are plants, and metals are metals; each is a concrete fact with its own special characteristic and significance. The things that we designate as mountains, rivers, grasses, trees, insects, fish, birds, and beasts all have their own respective individuality. We can explain them from a variety of standpoints and in a variety of ways, but nature in the sense of directly given, intuitive facts cannot be altered in the least" (Nishida 1990: 70).

Nishida later sees the world as a creative historical process which "*is a world in which that which is made makes that which makes;*" the world of *poiesis*, which contains the world of biological life as well. Concerning organic nature Nishida wrote the article, *Logic and Life* (1936) and *Historical Body* (1937).

In *Historical body*, Nishida claims that the problem of the body has not been sufficiently considered in philosophy. According to Nishida, even in modern philosophy the discussion concerning the mind-body problem is not thematized by the body itself; rather the body is always considered in relation to the mind. As he

states, the body exists because the self exists, and conversely the self exists because it exists bodily (Nishida 1998: 42). Nishida calls such a concept the "existential body."

Nishida was influenced by Henry Bergson's *Creative Evolution* (1907); he adopted Bergson's notion of "duration" and concept of temporality of creative process where, according to Nishida: "Time flows from an infinite past to the future. Moment by moment it is new. A previous moment of time never returns. It is a flow from the infinite past to the future" (Nishida 1998: 50).

Nishida's idea of the social-historical world inspired the Japanese anthropologist and founder of primatology, Imanishi Kinji (1902-1992), the author of the influential book, *The World of living things* (1941); in English the translation is called, *A Japanese view of nature: The World of living things* (2002). Imanishi, who was influenced also by Jakob von Uexküll and by Peter Kropotkin, saw nature as inherently harmonious. Species fit together in a large organic whole, each species finding its own niche (de Waal 2003: 293-294). As Dutch primatologist and ethologist professor De Waal claims, this Eastern view of cooperation and complementary roles within the ecosystem contrasts with the modern Western approach explaining species in terms of competition and mutual exploitation (De Waal 2003: 293). Imanishi uses Nishida's simple stand that "individuals learn from one another, their behavior may, over time, become different from that in other groups, thus creating a characteristic culture" (De Waal 2003). Imanishi's attitude towards genetic determinism presupposes the same for living nature and he states that animals other than ourselves might have a culture. De Waal points out that Imanishi's hypothesis of cultural learning was confirmed within a few years of the book's publication from observations of Japanese macaques washing sweet potatoes on Koshima Island and by many other examples like birdsong, the use of tools by chimpanzees, and the hunting techniques of whales (De Waal 2003: 296).

Nishida's creative world of *poiesis* could be also comparable with evolutionary ideas represented within contemporary bio-semiotics or eidetic biology, for example with authors of the book, *Life as Its Own Designer* (2009).

Contrary to the predominant view in biology which places life phenomena in the casual world of objective reality governed by heteronomous, general laws, these authors prefer to perceive natural existence in its actuality as the living world of *physis*. *Physis* is the concept of nature of archaic Greece discussed by Ionian pre-Socratic thinkers (e.g., Heraclitus from Ephesus, Thales, Hippocrates), which shares important parallels with Nishida's philosophy. *Physis* reveals herself as floating. *Physis* is ever-changing; it emerges as something which necessarily dies out, without, however, exhausting the potential of the world's turnover. *Physis* is not an existence, but a superposition of things both existing and non-existing (Markoš et al. 2009: 11-12).

The mainstream contemporary biological paradigm represented by the genetic deterministic worldview reduces life to the formal structure of genetic text and its encoded plan. Evolution in such a view merely reflects changes in sequential arrangement of the four letter signs in the DNA alphabet. Authors of *Life as Its Own Designer* offer an alternative approach by emphasizing eidetic aspect of life as mutual communication of forms.

"We regard every development (becoming body) as a hermeneutic feat, as a gradual process of exegesis (self-manifestation) consisting of genuine choices and decisions among various understanding of the past knowledge, both in "script" (if we stick to the textual allegory of genetic information) and "tradition" (bodily and cultural continuity)" (Markoš et al. 2009, 4).

Authors call this eidetic aspect of life "likeness." Likeness means a manifestation of the dynamic nature of living forms showing "what it is" by reference to "what it looks like" (Markoš et al. 2009: 67). The body is then a superposition of the dynamic forms and is made out of the dramatic events the embodied being experiences (Markoš et al. 2009: 87).

These authors share with Nishida the view of the body as the ever-changing individual, unique form of life and the view of evolution of living forms, which creates new forms through the mutual interactions of these forms and the environment. "The living, by nature, is new" (Markoš et al. 2009: 64).

## **Results and Discussion**

Feyerabend adopted dynamic features of archaic paratactic thought to his philosophy and to the postmodern framework of the 20<sup>th</sup> century. Postmodern ethos indeed shows affinity and interest to archaic cultures. Parataxis is revealed again in visual art like in cubism, expressionism, and collages or in Dadaism. In poetry and in literature, parataxis is perceived to be the dominant mode of post-industrial experience (Perelman 1993). Parataxis is one of the characteristics of the postmodern world. North American critic, Ihab Hasan, provided a list of binary distinctions representing the difference between modernism and postmodernism: purpose/play, design/chance, distance/participation, hypotaxis/parataxis, selection/combination, determinacy/indeterminacy (Bertens 1997). Parataxis arises in films and video arts, in music, rhetoric, media, cyberspace, etc. Professor Walter Ong uses the term "secondary orality" for the paratactic character of our media-dominated world and contemporary electronic culture (Ong 1982: 136).

Feyerabend states to not have any philosophy or theory of science in a strict sense. Nevertheless, Feyerabend's pluralistic approach to the philosophy of science, epistemology or to philosophy in general represents nothing else than paratactic aggregate. Science is, from Feyerabend's historical point of view, an anarchistic enterprise without any strict rules and methodologies. Science is not coherent, but a collection of heterogeneous subjects, both in diachronic and synchronic sense. There is no "scientific worldview," just as there is no uniform enterprise "science" except in the minds of metaphysicians and schoolmasters (Feyerabend 1975: 249).

Feyerabend's anarchistic epistemology means coordination instead of subordination and possesses exactly the same structure as Feyerabend's theory of myth, which is paratactic aggregate. Feyerabend explains his epistemological anarchism as a form of "dada" or "collage", both of which are paratactic techniques. Even Feyerabend's own philosophical development evokes paratactic features with his continually changing philosophical positions—from logical positivism and nominalism to realism and then to various forms of relativism. Even Feyerabend's biography, *Killing Time* (1995), describes that in his life he placed his career as opera singer, astronomer, soldier, theatre theoretician, theoretician of science, historian of science, professor of philosophy as a constantly moving affair from one academic appointment to another (Feyerabend 1995). Feyerabend's publications constitute only collages of his texts and one book of three philosophical dialogues (Feyerabend 1991). As author, Feyerabend perceives himself often in the role of "storyteller" rather than "theoretician;" humor (the purest form of paratactic aggregate) was always a part of his writing and his life.

Feyerabend's work, rhetoric argumentation, methodology, epistemology, ontology, his logic, social political opinions, and entire worldview embody the concept of paratactic aggregate. Feyerabend's pluralistic philosophy presents a historical world that is the aggregate of relatively independent regions, absolutely opposing universal standards, universal laws, and universal morals.

## **Conclusion**

Nishida's and Feyerabend's philosophical approach clarifies the historicity and plurality of the world within the realm of religion, ontology, epistemology, and modern science. Naive interpretations of historicism and the stream of thought, which see history as having a fate, historical laws, or a plan was strongly criticized namely for its implications on politics or on sociological theories, for example, by

Feyerabend's teacher, Karl Reimund Popper in *The Poverty of Historicism* (Popper 1974, 147). Popper correctly perceives the connection between historicism and totalitarian ideologies and sees historicism indeed as a very dangerous and explosive way of thinking. Feyerabend was definitely aware of that and that is why Feyerabend fights with his strictly pluralistic philosophy and with his flaming anarchistic slogan "anything goes," and thus opposing all kinds of unifying ideologies (including Popper's critical rationalism). He implicates those ideologies which attempt to perceive the historical world teleologically or those which would like to grasp the historical world by some new rules or methods (Feyerabend's criticism of Kuhn). Feyerabend's pluralism and proliferality thesis does not allow for any kind of monism; and as Oberheim points out ethics is, therefore, the basis of epistemology and of everything else (Feyerabend 2011, X). The impact of the interpretation of Nishida's philosophy in terms of political implications is more problematic.

Nishida's philosophy challenges European modernism, positivism, and Western scientific realism and tries to overcome this view by way of his philosophical concept of ultimate reality as a historical world, which has characteristics of unity of contradictories. One of the examples which Nishida used for this concept was the radical and incommensurable change from 18<sup>th</sup> century Japan to modern Japan. During the political climate of the mid-1930s to early 1940s, when Japan's nationalism and authoritarian and militant imperialism were gradually growing and when Japan invaded Korea, Manchuria, and China, Nishida wrote in his essay, *Fundamental Principles of a New World Order* (1942) as follows:

"Today, as a result of scientific, technological and economic development, all nations and peoples have entered into one compact global space. Solving this problem lies in no way other than for each nation to awaken to its own historical mission and for each to transcend itself while remaining thoroughly true to itself, and construct one multi-world ('sekaiteki sekai')" (Murata 2007, 159).

In light of World War II, these ideas with problematic and controversial political implications were enthusiastically interpreted by the Kyoto School thinkers and Japanese intellectuals of the time in a nationalistic and imperialistic spirit (Heisig; Maraldo 1994). Nishida himself did not participate in the “Overcoming of Modernity” debate, but he (as the leading intellectual of that time) was often perceived as a symbol of the debate and all its associated nationalistic and Japanese exceptionalism (*nihonjinron*), which were very popular ideas at that time (Arisaka 1996, 3).

Nevertheless, as professor Feenberg maintains, Nishida’s nationalism was primarily cultural, not militaristic, and he was critical of racist and totalitarian interpretations of official policy (Feenberg 1994, 151). According to professor Arisaka, Nishida’s suggestive essay has been used by both the defenders and opponents of his politics to support their case. Arisaka concludes that “[t]o this day there is no consensus on Nishida’s political stance, and the representation of his position ranges from ‘antinationalist liberal’ to ‘ultranationalist,’ and everything in-between” (Arisaka 1996, 6).

Interestingly, Feyerabend’s work also receives very ambivalent political interpretations. Feyerabend participated in World War II. He was drafted into the army in 1942, and was awarded an Iron Cross second class in 1944. Then in 1945 in Poland he was wounded in the spine by a machine-gun bullet, which had lifelong consequences for him. In reaction to his first book, *Against Method* (1975), Feyerabend was accused among others of idolizing totalitarian China and surreptitiously justifying Nazism and producing ‘hate blasts,’ violence, and vulgarity (Agassi 1976). On the other hand, for his declarations of epistemological anarchism and his criticism of Western rationalism and imperialism, Feyerabend has also been regarded as a radical left thinker (Preston 1997). Nevertheless, the general characteristic of Feyerabend’s pluralistic philosophy is a decisive stand against all forms of monism, dogmatism, and totalitarianism.

## Reference list

### Journal article and online document

Abe, Masao. 1969. *God, Emptiness, and the True Self*. *The Eastern Buddhist* II/2:15-30.  
[www.worldwisdom.com/public/library/default.aspx](http://www.worldwisdom.com/public/library/default.aspx)

Agassi, Joseph. 1976. *Review of Against Method*. *Philosophia* 6. (pp 165-177)

Agassi, Joseph. 1999. *Let a Thousand Flowers Bloom: Popper's Popular Critics*. Tel-Aviv: Tel- Aviv University

Arisaka, Yoko. 1996. *The Nishida Enigma: "The Principle of the New World Order" (1943)*. *Monumenta Nipponica* 51:1

Athanasopoulos, Constantinos. 1994. *Pyrrhonism and Paul Feyerabend: A Study of Ancient and Modern Scepticism*. *Hellenistic Philosophy* (Volume 2), K. Boudouris (ed.), Athens: International Center for Greek Philosophy and Culture, pp. 11–29.

Bailey, Alan. 1990. *Pyrrhonian Scepticism and the Self-Refutation Argument*. In *The Philosophical Quarterly*. Vol. 40/158: 27-44

Bearn, Gordon C.F. 1986. *Nietzsche, Feyerabend, and the Voices of Relativism*. *Metaphilosophy*, 17: 135–152

Ben-Israel, I. (2001). *Philosophy and methodology of military intelligence: correspondence with Paul Feyerabend*. *Philosophia*, 28, 71–100.

Bertens, Hans. 1997. *International postmodernism: theory and literary practice*. Amsterdam: John Benjamin Publishing

Brown, Matthew, J. 2009. *Models and perspectives on stage: remarks on Giere's Scientific perspectivism*. *Studies in History and Philosophy of Science* 40. 213–220

Budelmann, Felix. 2010. *Introducing Greek lyric*. *The Cambridge Companion to Greek Lyrics*. Cambridge: The Cambridge University Press

Carter, Robert Edgar. 2009. *God and Nothingness*. Philosophy East & West Volume 59, Number 1 January 2009 1–21, University of Hawai'i Press

Cestari, Matteo. 2010. *Between Emptiness and Absolute Nothingness*. 320-344.  
<http://nirc.nanzan-u.ac.jp/publications/EJPhilosophy/PDF/EJP7%20Cestari.pdf>

Clark, Stephen R. L. 2002. *Feyerabend's Conquest of Abundance*. *Inquiry* 45 (2):249 – 267.

Collodel, Matteo. 2011. *The Development of Feyerabend's Idea of Incommensurability*. Kolloquium für philosophische Forschungsarbeiten Leibnitz Universität Hannover  
[http://www.academia.edu/1706825/The\\_Development\\_of\\_Feyerabends\\_Idea\\_of\\_Incommensurability](http://www.academia.edu/1706825/The_Development_of_Feyerabends_Idea_of_Incommensurability)

Gaskin, Richard. 1990. *Do Homeric Heroes make Real Decisions?*, *Classical Quarterly* 40, 1–15

Cheung, Ching-yuen. 2009. *The Potential and Limits of Nishida Kitarō's Philosophy in Frontiers of Japanese Philosophy* 4 <http://nirc.nanzan-u.ac.jp/publications/EJPhilosophy/PDF/EJP4-Cheung.pdf>

Churchland, Paul M. 1997. *To Transform the Phenomena: Feyerabend, Proliferation, and Recurrent Neural Networks*. *Philosophy of Science* 64 (4):420.

Dalissier, Michel. 2009. *Nishida Kitarō and Chinese Philosophy*  
<http://nirc.nanzan-u.ac.jp/publications/EJPhilosophy/PDF/EJP4-Dalissier.pdf>

Davis, Bret W. 2010. *Nishida Kitarō*. *Stanford Encyclopedia of Philosophy*  
<http://plato.stanford.edu/entries/nishida-kitaro/>

Davis, Bret W. 2006. *The Kyoto School*. *Stanford Encyclopedia of Philosophy*  
<http://plato.stanford.edu/entries/kyoto-school/>

De Waal, Frans B.M. 2003. *Silent invasion: Imanishi's primatology and cultural bias in science*. Springer-Verlag

Dilworth, David. 1970. *Nishida's Early Pantheistic Voluntarism*. *Philosophy East and West*. V.20 P35~49. University Press of Hawaii <http://www.uhpress.hawaii.edu/index.html>

Elwood, Brian D. 1994. *The Problem of the Self in the Later Nishida and in Sartre*. *Philosophy East and West* Vol. 44, No. 2 April 1994 pp. 303-316 University of Hawaii Press

Farrell, Robert P. 2000. *Will the Popperian Feyerabend Please Step Forward: Pluralistic, Popperian Themes in the Philosophy of Paul Feyerabend*. *International Studies in the Philosophy of Science* 14 (3):257 – 266

Farrell, Robert P. 2001. *Feyerabend's Metaphysics: Process-Realism, or Voluntarist-Idealism?* *Journal for General Philosophy of Science* 32 (2):351-369.

Feenberg, Andrew. 1999. *Experience and Culture: Nishida's Path 'To the Things Themselves'*. (1). *Philosophy East and West*, vol. 49, no. 1

- Giedymin, Jerzy. 1971. *Consolations for the Irrationalist?*. *British Journal for the Philosophy of Science*, 22: 39–53.
- Gellner, Ernest. 1975. *Beyond Truth and Falsehood* [Review of *Against Method*]. *British Journal for the Philosophy of Science*, 26: 331–342
- Godart, Clinton. 2009. *Darwin in Japan: Evolutionary Theory and Japan's Modernity*. Chicago: The University of Chicago
- Grunfeld, Joseph. 1984. *Feyerabend's Irrational Science*. *Logique Et Analyse* 27:221-232
- Hattiangadi, Jagdish. N. 1977. *In the Crisis in Methodology: Feyerabend*. *Philosophy of the Social Sciences* 7 (3):289-302
- Heit, Helmut. 1999. *Feyerabend on the Incommensurability between the Archaic and the Pre-Socratic Cosmology*. *Incommensurability and Related Matters*. Universität Hannover
- Heit, Helmut. 2009. *Popper and Feyerabend on the Pre-Socratics*. *Skepsis* Vol. XX, 90- 99
- Hentschel, Klaus. 1985. *On Feyerabend's Version of "Mach's Theory of Research and its Relation to Einstein"*. *Studies in History and Philosophy of Science*, 16: 387–394.
- Hoffecker, John.F. 2005. *Innovation and technological knowledge in the Upper Paleolithic of Northern Eurasia*. *Evolutionary Anthropology* 14(5): 186-198
- Hoyningen-Huene Paul. 1994. *Obituary of Paul K. Feyerabend (1924-1994)*. *Erkenntnis*, 40: 289–292.
- Hoyningen-Huene Paul. 1995. *Two Letters of Paul Feyerabend to Thomas S. Kuhn on a Draft of the Structure of Scientific Revolutions*. *Studies in History and Philosophy of Science Part A* 26 (3):353-387
- Hoyningen-Huene Paul. 1997. "Paul K. Feyerabend", *Journal for General Philosophy of Science* 28 (1): 1–18.
- Hoyningen-Huene, Paul. 2002. *Paul Feyerabend Und Thomas Kuhn*. *Journal for General Philosophy of Science* 33 (1):61-83
- Hoyningen-Huene, Paul. 2006. *More Letters by Paul Feyerabend to Thomas S. Kuhn on Proto-Structure*. *Studies in History and Philosophy of Science Part A* 37 (4):610-632
- Hoyningen-Huene, Paul. 2010. *Incommensurability of Scientific Theories*
- Johnson, William A. 2006. *Hesiod's Theogony: Reading the Proem as a Priamel*, *Greek, Roman, and Byzantine Studies* 46. 231–235
- Kadvany, John. 1996. *Reason in History: Paul Feyerabend's Autobiography*. *Inquiry* 39 (1):141 – 146.
- Kasulis, Thomas P. 2008. *Writing a History of Japanese philosophy*.  
[http://utcp.c.u-tokyo.ac.jp/publications/pdf/UTCPBooklet\\_11\\_025-037.pdf](http://utcp.c.u-tokyo.ac.jp/publications/pdf/UTCPBooklet_11_025-037.pdf)
- Kidd I. 2008. *Method in Madness - Feyerabend's Philosophical Pluralism*. *Metascience* 17:469-473  
 DOI 10.1007/s11016-008-9213-2

Kidd, Ian James. 2011. *Objectivity, Abstraction, and the Individual: The Influence of Søren Kierkegaard on Paul Feyerabend*. *Studies in History and Philosophy of Science Part A* 42 (1):125-134.

Kidd, Ian. 2012. *Feyerabend, Pseudo-Dionysius, and the Ineffability of Reality*. *Philosophia* 40/2: 365-377

Kopf, Gereon. 2003. *On the Brink of Postmodernity*, *Japanese Journal of Religious Studies*. Nanzan Institute for Religion and Culture

Kopf, Gereon. 2006. *Is Dialectical Philosophy Tenable? Revisiting Hegel, Nishida, and Takahashi*. *International Journal for Field-Being*, Vol. 3, No. 1 (2006)

Kozyra, Agnieszka. 2007. *Nishida Kitarō's Logic of Absolutely Contradictory Self-Identity and the Problem of Orthodoxy in the Zen Tradition*. *Japan Review*, 2007, 20:69–110  
<http://shinku.nichibun.ac.jp/jpub/pdf/jr/JN2003.pdf>

Lateiner, Donald. 2006. *The Iliad: an unpredictable classic*. The Cambridge Companion to Homer. Cambridge: The Cambridge University Press

Levi-Strauss, Claude. 1955 *The Structural Study of Myth*. *The Journal of American Folklore*, Vol. 68, No. 270, Myth: A Symposium. pp. 428-444

Lin Ma. 2008. *Heidegger's (Dis)Engagement with Asian Languages*. *Journal of Chinese Philosophy*, Volume 35, Issue 2, pages 319–337

LIU Dachun, LIU Yongmou 2009. *A reflection on the alternative philosophy of science*. *Front. Philos. China* 2009, 4(4): 576-588 DOI 10.1007/s11466-009-0038-x

Lloyd, Elisabeth A. 1997. *Feyerabend, Mill, and Pluralism*. *Philosophy of Science* 64 (4):407

Newall, Paul. 2005. *Anything Goes: Feyerabend and Method*. *The Galilean Magazine*.  
<http://www.galilean-library.org/manuscript.php?postid=43838>

Machan, T. R. 1982. *Anarchosurrealism Revisited Reply to Feyerabend's Comments*. *Philosophy of the Social Sciences* 12 (2):197-199

Maraldo, John C. 2010. *Nishida Kitaro*. *Stanford Encyclopedia of Philosophy*.  
<http://plato.stanford.edu/entries/nishida-kitaro/>

Misfud, Mari L. 2007. *On Rhetoric as Gift/Giving*. *Philosophy and Rhetoric - Volume 40, Number 1*, 2007, pp. 89-107

Munévar, Gonzalo. (ed.). 1991. *Beyond Reason: Essays on the Philosophy of Paul Feyerabend*, Dordrecht: Kluwer

Munévar, Gonzalo. 2002 a . *Conquering Feyerabend's Conquest of Abundance?. Philosophy of Science*. 69: 519–535

Munévar, Gonzalo. 2002 b. *Critical Notice: Conquering Feyerabend's Conquest of Abundance*. *Philosophy of Science* 69 (3):519-535

- Murata, Junichi. 2007b. *Creativity of the Historical World-Nishida and the Philosophy of Technology*. The Seoul Conference of Asian Philosophy "Rethinking Philosophy in Asia"
- Naess, Arne. 1999. *Paul Feyerabend: A green hero?* In N. Witoszek & A. Brennan (Eds.), 1036 *Philosophical dialogues: Arne Naess and the progress of philosophy* Oxford: Rowman and Littlefield (pp. 57–68)
- Noda, Matao. 1954. *East-West Synthesis in Kitarō Nishida. Philosophy East and West*. Vol. 4 (1954~1955) pp. 345-359, University of Hawaii Press
- Neto, José R. Maia. 1991. *Feyerabend's Scepticism. Studies in History and Philosophy of Science Part A* 22 (4):543-555
- Noe, Keiichi. 2009. *Nishida Kitarō as Philosopher of Science*. Nanzan Institute for Religion and Culture <http://nirc.nanzan-u.ac.jp/publications/EJPhilosophy/PDF/EJP4-Noe.pdf>
- Oberheim, Eric; Hoyningen-Huene, Paul. 1997. *Incommensurability, Realism and Meta-incommensurability*. *Biblid* [ISSN 0495-4548 Vol.12: No 30]
- Oberheim, Eric; Hoyningen-Huene, Paul. 2000. *Feyerabend's Early Philosophy. Studies in History and Philosophy of Science Part A* 31 (2):363-375.
- Oberheim, Eric. 2005. *On the historical origins of the contemporary notion of incommensurability: Paul Feyerabend's assault on conceptual conservatism*. *Studies in History and Philosophy of Science* 36, Elsevier Ltd. (pp. 363-390)
- Oberheim, Eric. 2005. *Book Review Feyerabend and Scientific Values*. [REVIEW] *Philosophy of Science* 72 (3):514-517
- Oberheim, Eric; Hoyningen-Huene, Paul. 2009. "The Incommensurability of Scientific Theories." *The Stanford Encyclopedia of Philosophy*. Edited by Edward Zalta. 2009
- Perelman, Bob. 1993. *Parataxis and Narrative: The New Sentence in Theory and Practice*. Duke University Press (American literature)
- Preston, John. 1997. *Feyerabend's Retreat From Realism. Philosophy of Science* 64 (4):431
- Preston, John. 1998. *Science as Supermarket: 'Post-Modern' Themes in Paul Feyerabend's Later Philosophy of Science. Studies in History and Philosophy of Science Part A* 29 (3):425-447.
- Rappenglück, Michael A. 2004. *A Paleolithic Planetarium Underground – the Cave of Lascaux Migration & Diffusion*. Volume 5, Issue Number 19, p. 6–47. Odyssee-Verlag-Wien.
- Sankey, Howard. 2012. *Philosophical Fairytales From Feyerabend*. [REVIEW] *Metascience* 21 (2):471-476
- Sarris, Haris; Kolydas, Tassos; Tzevelekos, Panagiotis. 2010. *Parataxis: A Framework of Structure Analysis for Instrumental Folk Music*. *journal of interdisciplinary music studies*. volume 4, issue 1, art. #10040104, pp. 71-90
- Svozil, Karl. 2004. *Feyerabend and physics*. University of Technology Vienna. The International Symposium Paul Feyerabend 1924-1994. A philosopher from Vienna, University of Vienna. 2004

<http://www.citebase.org/fulltext?format=application%2Fpdf&identifier=oai%3AarXiv.org%3Aphysics%2F0406079>

Theocharis, T; Psimopoulos, M. 1987. *Where Science Has Gone Wrong*. *Nature*, 329: 595–598

Tremblay, Jacques J. 2009. *Nishida Kitaro's Language and Structure of Thought in the "Logic of Basho"*. *Frontiers of Japanese Philosophy* vol.6, pp. 254–272

van Bragt Jan. 1991. *The Challenge to Christian Theology from Kyoto-school Buddhist Philosophy*. an introductory talk given to the Conference on Buddhism and Christianity. De Tiltenberg, The Netherlands.1988

van Fraassen, Bas C. 1997. *Sola Experientia?--Feyerabend's Refutation of Classical Empiricism*. *Philosophy of Science* 64 (4):395

Van Fraassen Bas.C. 2000. *Paul Feyerabend and Conquest of Abundance*  
<http://webware.princeton.edu/vanfraas/mss/Feyerabend-review.pdf>

Wood Christopher S. 2009. *Allegory and prophecy*. *Die Oberfläche der Zeichen. Bildallegorien der frühen Neuzeit in Italien und die Hermeneutik visueller Strukturen*. ed. Klaus Krüger, Wolf Löhr, Ulrike Tarnow, and Iris Wenderholm. Munich: Fink

Zahar, Elie. 1981. *Second Thoughts About Machian Positivism: A Reply to Feyerabend*. *British Journal for the Philosophy of Science* 32 (3):267-276

## Conferece papers

Kuby, Daniel. 2012. *Paul Feyerabend, Logical Empiricist. A Reappraisal of the Continuity between Logical Empiricism and "Post-positivist" Philosophy of Science*. Feyerabend 2012, Humboldt Universität zu Berlin

Kusch, Martin. 2012. Feyerabend on Relativism. Feyerabend 2012, Humboldt Universität zu Berlin (2012)

Collodel, Matteo. Feyerabend, Popper and the "Popperian School" Metodological Issues in the History of the Philosophy of science. Feyerabend 2012, Humboldt Universität zu Berlin (2012)

Holzappel, Andre; Stylianou, Yannis. 2010. *Parataxis: Morphological similarity in traditional Music*. 11th International Society for Music Information Retrieval Conference. ISMIR  
<http://ismir2010.ismir.net/proceedings/ismir2010-77.pdf>

## Book chapter

Feenberg, Andrew. 1994. The Problem of Modernity in the Philosophy of Nishida. [From *Rude Awakenings*, J. Heisig and J. Maraldo, eds., Honolulu: Univ. of Hawaii Press, 1994]

Porter, James, I. 2006. *Homer: The history of an idea*. The Cambridge Companion to Homer. Cambridge: The Cambridge University Press

Schadewaldt, Wolfgang. 1978. Die Anfänge der Philosophie bei den Griechen. Frankfurt a. M. pp. 48-64

Schnädelbach, Herbert. 1991. *Against Feyerabend*. In: Munevar, G. (ed.) Beyond reason: essays on the philosophy of Paul Feyerabend. Dordrecht: Kluwer Academic Publishers, 433-448

## **Book**

Alford, C. Fred. 1999. *Think no evil: Korean values in the age of globalization*. Cornell University Press

Aune, David E. 1987. *The New Testament in its literary environment*. Philadelphia: The Westminster press

Beazley, J.D., Ashmole Bernard. 1932. *Greek Sculpture and Painting*. Cambridge: Cambridge University Press

Bremmer, Jan. 1987. *The early Greek concept of the soul*. Princeton: Princeton University Press

Butler Charles S. 2003. *Structure and Function*. Philadelphia: Benjamin B.V

Caswell, Caroline P. 1990. *A study of thumos in early-Greek epic*. Leiden: Brill

Clarke, Michel. 1999. *Flesh and spirit in the songs of Homer: A study of words and myths*. Oxford and New York: Clarendon Press

Dodds, Eric, Robertson. 2004. *The Greeks and the Irrational*. Berkeley, Los Angeles: California University Press. First published in 1951

Evans-Pritchard, E.E. 1965. *Theories of primitive religion*. Oxford: Clarendon Press

Farrell, Robert, P. 2003. *Feyerabend and Scientific Values: Tightrope-Walking Rationality*, Dordrecht: Kluwer.

Feyerabend Paul K. 1975. *Against Method*. London: Verso

Feyerabend Paul K. 1978. *Science in a Free Society*. London: Verso

Feyerabend, Paul K. 1981. *Realism, Rationalism, and Scientific Method: Philosophical Papers*, Volume 1. Ed. Preston J. Cambridge: Cambridge University Press

Feyerabend P. 1981. *Problems of Empiricism: Philosophical Papers*, Volume 2. Ed. Preston J. Cambridge: Cambridge University Press

Feyerabend Paul K. 1984. *Wissenschaft als Kunst*. Frankfurt am Main: Suhrkamp Verlag

Feyerabend Paul K. 1987. *Farewell to Reason*. London: Verso

- Feyerabend, Paul K. 1991. *Three Dialogues on Knowledge*. Blackwell Publishers Ltd.
- Feyerabend, Paul K. 1993. *Against Method*. Verso
- Feyerabend Paul K. 1995. *Killing Time*. Chicago: University of Chicago Press
- Feyerabend Paul K. 1999. *Knowledge, Science and Relativism. Philosophical Papers, Volume 3*. Ed. Preston John. Cambridge: Cambridge University Press
- Feyerabend Paul K. 1999. *Conquest of Abundance: A Tale of Abstraction Versus the Richness of Being*. ed. B.Terpsta. Chicago and London: University of Chicago Press
- Feyerabend Paul K. 2009. *Naturphilosophie*. ed. Heit Helmut, Oberheim Eric. Frankfurt am Main. Suhrkamp Verlag
- Feyerabend, Paul K. 2011. *The Tyranny of Science*. ed. Oberheim. Cambridge: E. Polity Press
- Giere, Ronald. 2006. *Scientific Perspectivism*. Chicago: The University of Chicago Press
- Griffin, Jaspers. 1980. *Homer on Life and Death*. Oxford: Oxford University Press
- Guthrie R.Dale. 2005. *The nature of Paleolithic art*. Chicago, The University Chicago Press
- Hashimoto, Takehiko. 2009. *Historical Essays on Japanese Technology*. Collection UTCP-6. The University of Tokyo
- Heidegger, Martin. 1993. *The Question Concerning Technology, Basic Writings*. rev. ed. by Krell, David Farrell. New York: HarperCollins Publishers
- Heisig, James W. 2001. *Philosophers of Nothingness*. Honolulu: University of Hawai'i Press
- Heisig, James, W. Maraldo, John C. (ed.) 1994. *Rude awakenings: Zen, the Kyoto school, and the question of nationalism*. University of Hawai'i Press
- Hogenová, Anna. 2005. *K filosofii výkonu*. Praha: Eurolex Bohemia
- Homer. *The Iliad*. trans. E.V. Rieu (Penguin Classics, 1950)
- Hopkins, Jasper. (tr.) 2001. *Complete Philosophical and Theological Treatises of Nicholas of Cusa*. Minneapolis: Banning.
- Imanishi, Kinji. 2002. *A Japanese view of nature: The World of living things*. Ed. Asquith, Pamela. London: Routledge Curzon
- Komárek Stanislav. 2009. *Nature and Culture*. Tr. A.G. Christensen. München: LINCOM
- Kuhn, Thomas. 1962. *The Structure of Scientific Revolutions*. Chicago: the University of Chicago Press
- Kunin, Seth D., Miles-Watson, Jonathan. 2006. *Theories of religion*. New Jersey: Rutgers University Press

- Mair, Víctor H. 1983. *Experimental essays of Chuang-tzu*. Honolulu: University of Hawai'i Press
- Markoš, Anton; Grygar, Filip; Hajnal, Lazslo; Kleisner, Karel; Kratochvíl, Zdeněk; Neubauer, Zdeněk. 2009. *Life as Its Own Designer*. Dordrecht, Heidelberg, London, New York: Springer
- Marshack, Alexander. 1972. *The Roots of Civilization*. London: Thames & Hudson.
- May, Reinhard. 1996. *Heidegger's Hidden Sources: East Asian Influences on His Work*. New Fetter Lane, London: Routledge
- Morris Edward P. 1901. *On Principles and Methods in Latin Syntax*. Yale University
- Motterlini M. (ed.) 1999. *For and Against Method, including Lakatos's Lectures on Scientific Method, and the Lakatos-Feyerabend Correspondence*. Chicago: University of Chicago Press
- Munévar, Gonzalo, ed. 1991. *Beyond Reason: Essays on the Philosophy of Paul Feyerabend*. Boston Studies in the Philosophy of Science. Dordrecht: Springer
- Murata, Junichi. 2007. *Perception, Technology, and Life-Worlds*. Collection UTCP-1. Tokyo: The University of Tokyo
- Nisbett, Robert.E. 2003. *The Geography of Thought*. New York: Free Press
- Nishida, Kitaro. 1990. *An Inquiry into the Good*. Tr. Abe, Masao; Ives, Christopher. Yale: Yale University
- Nishida, Kitaro. 1970. *Fundamental Problems of Philosophy: The World of Action and The Dialectical World*. Tr. Dilworth, David. Tokyo: Sophia University
- Nishida, Kitaro. 1987. *Last Writings Nothingness and the Religious Worldview*. Tr. Dilworth, David. Honolulu: University of Hawai'i Press
- Nishida, Kitaro. 1998. *Sourcebook for Modern Japanese Philosophy*. Tr. and ed. Dilworth, David; Viglielmo, Valdo H.; Zavala, Augustín J. Greenwood Press,
- Notopoulos, James, Anastasios. 1999. *Parataxis in Homer: a new approach to Homeric Literary Criticism*. Routledge
- Oberheim Eric. 2006. *Feyerabend's Philosophy*. New York: De Gruyter
- Ong, Walter J. 2001. *Orality and Literacy The Technologizing of the World*. London and New York: Routledge
- Onians, Richard, B. 1988. *The origins of European thought about the body, the mind, the soul, the world, time and fate*. Cambridge: Cambridge University Press
- Pelliccia, Hayden. 1995. *Mind, Body and Speech in Homer and Pindar*. Hypomnemata 107. Göttingen
- Popper, Karl. 1958. *"Back to the Presocratics"*. Conjectures and Refutations. On the Growth of Scientific Knowledge, London: Routledge, 1998: 136-165

- Popper, Karl R. 1974. *The Poverty of Historicism*. New Fetter Lane, London: Routledge
- Popper, Karl. R. 1998. *The World of Parmenides*. ed. Petersen, Arne. London and New York: Routledge
- Preston, John. 1997. *Feyerabend: Philosophy, Science and Society*. Cambridge: Cambridge University Press
- Preston, John; Munévar, Gonzalo; Lamb, David eds. 2000. *The Worst Enemy of Science? Essays in Memory of Paul Feyerabend*. Oxford: OUP
- Sartre, Jean-Paul. 1969. *Being and Nothingness: a phenomenological essay on ontology*. Northampton: John Dickens and Co Ltd
- Seaford, Richard. 2004. *Money and the early Greek Mind: Homer, philosophy, tragedy*. Cambridge: Cambridge University Press
- Snell, Bruno. 1953. *The Discovery of Mind*. Harvard University Press
- Sullivan, Darcus, Shirley. 1988. *Psychological activity in Homer. A study of Phren*. Ottawa: Carleton University Press
- Tylor, Edward B. 1903. *Primitive Culture*. London: John Murray
- Vernant, Jean P. 1980. *Myth and society in ancient Greece*. New Jersey: Harvester Press
- Vernant, Jean P. 1982. *The Origin of Greek Thought*. Cornell University Press
- Wallin, Axel R. 1910. *Parataxis in early latin*. New York n.p.
- Wargo, Robert. 2005. *The logic of nothingness: a study of Nishida Kitarō*. Honolulu: University of Hawai'i Press
- Webster, Thomas B.L. 1977. *From Mycenae to Homer*. New Jersey: Rowman and Littlefield
- Williams, Bernard. 1993. *Shame and Necessity*. Berkeley and Los Angeles: University of California Press
- Wittgenstein, Ludwig. 2002. *Tractatus Logico-Philosophicus*. Transl. Ogden C.K. New York: Routledge
- Whorf, Benjamin L. 1959. *Language, Thought, and Reality*. Ed. Carrol, John B. New York: The Technology Press