Chapter 2: Feyerabend’s Predecessors

2.1 Influence of Popper

Neither Popper’s nor Feyerabend’s autobiography tells us their relationship (Preston 2002). However, it is undoubtedly Popper has a great impact on Feyerabend’s thought, first positive, then negative (Preston 2002). In his Popperian period, Feyerabend did give credits to Popper in his early papers (Preston 1997). However, in the republication of his early papers (Preston 1997) and after 1967 (Preston 2002), such credits have disappeared. Such phenomenon is obviously unveiled in Feyerabend’s review of two Popper’s books in different period of time. In 1965, Feyerabend’s review on Popper’s Conjectures and Refutations was still glowing (Preston 2002). Nevertheless, his review of Objective Knowledge was scornful, in 1974 (Preston 2002).

It is quite interesting as we know Feyerabend develops an abiding close rapport with Lakatos, a Popperian, until the death of Lakatos in 1974. Feyerabend came to know Lakatos during his appointment at University College London, 1966-1969 (Preston 1997: 5). However, it is worth noting that Lakatos was no longer a strict Popperian when he got to know Feyerabend. Feyerabend recalls Lakatos:

I lectured at ...the London School of Economics... “Science has many holes,” I said in passing. “A Popperian triviality,” shouted Imre Lakatos. That shut me up; but I soon smiled at the incident... Feeling outraged, or simulating outrage at the drift of my story—with Imre you were never sure—he left the Great Thinkers who happened to be with him, came over, and tried to set things right. Imre and I... differed in outlook, character, and ambition; yet we became really good friends. (Feyerabend 1995, cited in Motterlini 1999: ix)

Furthermore, Feyerabend does not see himself a Popperian in his later stage of philosophical career. In a letter dated 15 March 1971 to Lakatos, he wrote:

Welcome to the US (if you have arrived, that is). Thank you also for your most interesting letter to Alan [Musgrave] re. Karl and Yoske. I am so glad I am not a
Popperian. Your letter, incidentally, gave me the idea for an additional footnote to AM [refers to Against Method]... (Motterlini 1999: 247)

Hence, it is clear that Feyerabend embarked his philosophical career in the track laid by Popper and later came to oppose his teacher. The swing of his thought from a rationalist who advocates scientific progress to a relativist who denies the supreme status of science presents a vexed question in the field, as revealed by Lakatos in a letter dated 24 February 1971 to Feyerabend:

P.S. Ian Hacking has two quite talented students who write silly theses about you and who want to have the final version of Against Method. I promised to give them a copy on my return from the States. One of them thinks that you are right and I am wrong, the other thinks that it is the other way around, but both agree that they do not quite know what the difference is. (Motterlini 1999: 243)

2.1.1 Feyerabend as a Popperian

Feyerabend was a student of Popper between 1952 and 1953 (Preston 1997: 3), and his earlier philosophy is shaped by Popper’s thought. During his stay at the London School of Economics under Popper’s supervision, Feyerabend “concentrated on the quantum theory and Wittgenstein” (Preston 2002). However, it is worth noting that the initial intention of Feyerabend is to study under Wittgenstein at Cambridge (Preston 2002). Popper became Feyerabend’s choice only after the death of Wittgenstein before his arrival (Preston 2002).

Feyerabend has acknowledged honestly the impact of Popper on him, as he writes “I for one am not aware of having produced a single idea that is not already contained in the realistic tradition and especially in Professor Popper’s account of it.” (Feyerabend 1965b: 251, cited in Suppe 1977: 166). Popper’s general influence has manifested in the chain given by Feyerabend himself:

criticism ---+ proliferation ---+ realism
According to Feyerabend, these three ideas “are presented, explained and made the starting points of argumentative chains” (Feyerabend 1995a: vii) throughout his philosophical career.

Criticism means that we do not simply accept the phenomena, processes, institutions that surround us but we examine them and try to change them. Criticism is facilitated by proliferation... we do not work with a single theory, system of thought, institutional framework until circumstances force us to modify it or to give it up; we use a plurality of theories (systems of thought, institutional frameworks) from the very beginning. The theories (systems of thought, forms of life, frameworks) are used in their strongest form, not as schemes for the processing of events whose nature is determined by other considerations, but as accounts or determinants of this very nature (*realism*, see vol. 1 …). (Feyerabend 1995a: vii)

The influence of Popper on Feyerabend is two-fold: on the rational conception of scientific model and on scientific methodology. Feyerabend accepts Popper’s critical rationalism as his fundamental philosophical belief. In his endorsing of a scientific realism point of view, Feyerabend “attempted to combine falsificationism with the ‘contextual’ theory of meaning which he read into Wittgenstein’s *Philosophical Investigations.*” (Preston 1997: 4). However, Feyerabend’s total acceptance of Popper’s methodological principle arrives only after his conviction of Popper’s and Duhem’s critiques of inductivism (Preston 1997: 3). The following sections examine Feyerabend’s rational conception of scientific model, inductive skepticism, and falsificationism. We shall see them in the light of Popperian in order to understand Feyerabend’s foundation of thought.

2.1.1.1 Feyerabend’s rational conception of scientific model

Feyerabend, following Popper, argues that science is a rational enterprise. Such assertion has a root in their common viewpoint on the aim of science. According to Popper, the
aim of science is “to find satisfactory explanations, of whatever strikes us as being in need of explanation.” (Popper 1975: 191). Scientific explanation is an undertaking to answer how-questions and why-questions (Popper 1975: 263). Popper contends that all problems of science are problems of explanation (Popper 1975: 263). These problems “are solved by proposing explanatory theories; and an explanatory theory can be criticized by showing that it is either inconsistent in itself or incompatible with the facts or incompatible with some other knowledge.” (Popper 1975: 263). In the course of problem solving, conjecture and refutation should be a canon of methodology whereby to get nearer to truth.

Though Feyerabend does not advocate explicitly the idea of verisimilitude, which is proposed by Popper, he still holds that the ultimate aim of science is to achieve progress. Feyerabend claims that a rational person has no reason to disagree with the progressive nature of science, for science comprises a part of human culture. The progress of science thus implies the progress of human civilization. His claim apparently is normative.

Nonetheless, the consensus between Feyerabend and Popper on the progressive nature of science is reached via different path. In Popper’s account, science is the one and only subject that makes a genuine progress in virtue of its critical approach. He claims:

Thus in science, as distinct from theology, a critical comparison of the competing theories, of the competing frameworks, is always possible. And the denial of this possibility is a mistake. In science (and only in science) can we say that we have made genuine progress: that we know more than we did before. (Popper 1978: 57)

It is clear that Popper does not admit the impossibility of critical discussion and comparison among theories. For if this is the case, his base of rational scientific model will collapse.

... a critical discussion and a comparison of the various frameworks is always possible. It is just a dogma—a dangerous dogma—that the different frameworks are like mutually untranslatable languages. (Popper 1978: 56)
The Myth of the Framework is, in our time, the central bulwark of irrationalism. My counter-thesis is that it simply exaggerates a difficulty into an impossibility. (Popper 1978: 56-57)

However, he never denied the difficulty of discussion though he rejects “the myth of the framework”.

I do admit that at any moment we are prisoners caught in the framework of our theories; our expectations; our past experiences; our language. But we are prisoners in a Pickwickian sense: if we try, we can break out of our framework at any time. (Popper 1978: 56)

The difficulty of discussion between people brought up in different frameworks is to be admitted. But nothing is more fruitful than such a discussion; than the culture clash which has stimulated some of the greatest intellectual revolutions. (Popper 1978: 57)

Hence, Popper has rejected incommensurability thesis, for two reasons. Firstly, his doctrine of critical rationalism does not allow incommunicability between theories; secondly, he rejects the study of meaning. Therefore, Popper’s account of scientific progress is the immediate outcome of his critical rationalism. Feyerabend does not share Popper’s view in full sense. According to him, scientific progress is rather a reason of doing science. It is a motive of scientists to embark on their enterprise. Though critical rationalism is the approach adopted by Feyerabend to pursue progress, he opposes Popper’s single critical rationalism. For Popper, critical rationalism is an attitude towards science; whereas for Feyerabend, it is rather an underlying principle of methodology that can be applied to any subject of studies.

Critical rationalism, the ‘real linchpin of [Popper’s] thought’ (R xxxv), is a tradition he himself has traced back to the Presocratics and especially to Xenophanes. The tradition is rational, it ‘wishes to understand the world and to learn by arguing with others’ (R 6). It is pluralistic—the arguments play points of view off against each other rather than comparing them with a fixed source of knowledge. (Feyerabend 2002: 162-163)
In Feyerabend’s philosophy, critical rationalism should exist as a pluralistic approach in order to attain any substantive progress. Hence, he claims that proliferation of methodology is an inevitable result of critical rationalism. Thus, Feyerabend’s principle of proliferation encourages incommensurable theories, for this allows scientific progress. However Feyerabend’s upholding of incommensurability thesis does not contradict with his critical rationalism and his view on scientific progress. It is further backup by his statement “the growth of knowledge or, more specifically, the replacement of one comprehensive theory by another involves losses as well as gains.” (Feyerabend 1978a: 219). In his later paper Progress in Philosophy, the Sciences and the Arts, he categorizes his view of progress as of qualitative (Feyerabend 2002: 143-161).

It is worth noting that both Popper and Feyerabend reject the descriptive nature of the epistemology of science, which is a viewpoint conceives epistemology as a “description of the conditions under which knowledge exists, or is attainable.” (Preston 1997: 14). Popper interprets epistemology “as a wholly normative discipline, a discipline which lays down rationally grounded rules or norms which, if followed, would produce good science.” (Preston 1997: 14). Feyerabend follows this line of thought and even goes “more deeply than any of his contemporaries.” (Preston 1997: 14). In his discussion on a model for progress, he “hope[s] that the occasional disparity between the model and actual scientific practice will be regarded as a criticism of the latter, not of the former.” (Feyerabend 1995: 111). He claims that “in the struggle between an ideal and actual reality the ideal must always be given the upper hand.” (Feyerabend 1995: 111). However, Feyerabend deems normative epistemology as a rational enterprise, as he asserts “we want to shape it [refer to scientific discipline], and improve it in accordance with ideas we find reasonable.” (Feyerabend 1995: 111)

Feyerabend holds that scientific methodology must be normative as well. The task of philosopher of science is not to describe the actual scientific practice but to propose what ought to be done.
2.1.1.2 Feyerabend's inductive skepticism

Popper claims that he “started to work on the problem of induction in 1923”, and he found the solution about 1927 (Popper 1975: 1). It is the solution of this problem that makes him realize the significance of his earlier solution of the problem of demarcation (Popper 1975: 1).

Popper’s solution of the problem of induction is through his reformulation of the traditional philosophical problem of induction (Popper 1975: 2). By the traditional problem, he calls it ‘Tr’, like the following:

\[ Tr \]  What is the justification for the belief that the future will be (largely) like the past? Or, perhaps, what is the justification for inductive inferences? (Popper 1975: 2)

Popper deems the assumption of Tr is wrong for two reasons. First, the assumption of the similarity between the future and the past is wrongly drawn (Popper 1975: 2). What happened in the past does not necessary guarantee its occurrence in the future. Second, the assumption of the inductive inferences, “and rules for drawing inductive inferences… is an assumption which should not be made uncritically, and one which I also regard as mistaken.” (Popper 1975: 2). The main reason that drives Popper to reject the traditional problem of induction is its uncritical characteristic (Popper 1975: 2).
Popper distinguishes three solutions to the problem of induction (Popper 1975). The first solution is of the commonsense. According to Popper, this solution is unsatisfactory, for "it is simply taken for granted (without any problems being raised) that our belief in regularities is justified by those repeated observations which are responsible for its genesis." (Popper 1975: 3).

The second solution is provided by Hume. He has raised two problems of induction: a logical problem and a psychological problem (Popper 1975: 3). Hume’s logical problem is:

\[ H_L \] Are we justified in reasoning from [repeated] instances of which we have experience to other instances [conclusions] of which we have no experiences? (Popper 1975: 4)

Hume’s psychological problem is:

\[ H_{PS} \] Why, nevertheless, do all reasonable people expect, and believe, that instances of which they have no experience will conform to those of which they have experience? That is, why do we have expectations in which we have great confidence? (Popper 1975: 4)

Popper holds that Hume’s solutions are irrational (Popper 1975: 4).

Hume’s answer to \[ H_L \] is: No, however great the number of repetitions. (Popper 1975: 4)

Hume’s answer to \[ H_{PS} \] is: Because of ‘custom or habit’; that is, because we are conditioned, by repetitions and by the mechanism of the association of ideas… (Popper 1975: 4)

His [refers to Hume’s] result that repetition has no power whatever as an argument, although it dominates our cognitive life or our ‘understanding’, led him to the conclusion that argument or reason plays only a minor role in our understanding. Our ‘knowledge’ is unmasked as being not only of the nature of belief, but of rationally indefensible belief—of an irrational faith. (Popper 1975: 4-5)
The third solution, which is proposed by Popper, is aimed at eliminating Hume’s irrationalist conclusion. Popper’s strategy is to abolish the distinction of logical and psychological treatment that held by Hume towards the problem of induction. He revises Hume’s solution by merging psychological problem into logical problem, in two steps. Firstly, all of the psychological or subjective terms are transformed into objective terms:

... one of my principal methods of approach, whenever logical problems are at stake, is to translate all the subjective or psychological terms, especially ‘belief’, etc., into objective terms. Thus, instead of speaking of a ‘belief’, I speak, say, of a ‘statement’ or of an ‘explanatory theory’; and instead of an ‘impression’, I speak of an ‘observation statement’ or of a ‘test statement’... (Popper 1975: 6)

Secondly, on the basis of principle of transference, Popper claims that “what is true in logic is true in psychology.” (Popper 1975: 6) It is so because all of the psychological terms can be reduced to logical terms. Popper goes further to avoid psychological element by turning Hume’s ‘instances of experience’ into ‘test statement’ (Popper 1975: 7). The relation between scientific theories and observations is thus of logical. This naturally leads to his claim of theory-ladenness of observation.

Finally, Popper formulates Hume’s problem of induction as such:

$L_1$ Can the claim that an explanatory universal theory is true be justified by ‘empirical reasons’; that is, by assuming the truth of certain test statements or observation statements (which, it may be said, are ‘based on experience’)? (Popper 1975: 7)

$L_2$ Can the claim that an explanatory universal theory is true or that it is false be justified by ‘empirical reasons’; that is, can the assumption of the truth of test statements justify either the claim that a universal theory is true or the claim that it is false? (Popper 1975: 7)

Popper echoes Hume in his solution to $L_1$, which is a negation, for “no number of true test statements would justify the claim that an explanatory universal theory is true.”
(Popper 1975: 7). To $L_2$, Popper's answer is positive, for "the assumption of the truth of test statements sometimes allows us to justify the claim that an explanatory universal theory is false." (Popper 1975: 7). Remarkably, Popper's solution to $L_2$ distinguishes himself from Hume, for it is this viewpoint that is famously known as falsificationism.

Feyerabend follows Popper's critique on inductive method. In his *A note on the problem of induction*, Feyerabend advocates Popper's and Hume's views, as discussed above. His mission in this paper is to refute a modified generalization hypothesis, which asserts that "given $P(n)$, it is reasonable to adopt $(x)P(x)$." (Feyerabend 1995: 203). The modified generalization hypothesis is a "formulation of the key statement of the problem of induction which would be weak enough to escape refutation by Hume's arguments." (Feyerabend 1995: 203). It shall be rejected for two reasons, first of epistemological and second of methodological. From an epistemological point of view, this hypothesis does not concern the truth but belief.

It does not assert that the result of the generalization will be true, or even highly probable... The modified hypothesis has often been misunderstood as justifying an expectation of success." (Feyerabend 1995: 204)

Hence, this hypothesis is attempted to avoid the critique from logical respect and it regresses to psychological level, which is attacked rigorously by Popper. This yields an unfavorable consequence to critical rationalism, as one loses his or her critical mind by "tak[ing] it for granted that adopting $(x)P(x)$ is the right thing to do, and one looks for some plausible argument supporting this belief." (Feyerabend 1995: 204). Besides, modified generalization hypothesis gives a green light to ad hoc theories, which is deemed detrimental to scientific progress by falsificationists. Thus, Feyerabend's epistemological rejection will lead to his methodological rejection, for $(x)P(x)$ can hardly be refuted. This methodological monism, which is objected by Feyerabend, should be avoided in the consideration of scientific progress. It is the adoption of Popper's falsificationism, which Feyerabend develops to methodological pluralism, drives sciences towards its aim. I shall conclude that Feyerabend's solution to the problem of induction implies his principle of methodological pluralism.
... given P(n), it is reasonable to use not only (x)P(x), but as many alternatives as possible. (Feyerabend 1995: 206)

The fact that the problem [of induction] is so difficult to solve need not worry us any longer. As a matter of fact, we should rejoice that we are not restricted, by some proof, to the use (given P(n)) of one generalization only and are thus able to discover some perhaps decisive shortcomings of this generalization. (Feyerabend 1995: 206)

2.1.1.3 Feyerabend’s Falsificationism

Feyerabend’s falsificationism has its ground in his critical rationalism and his solution of the problem of induction. It is a normative measure to achieve the aim of science. However, it is to be noted that Feyerabend has relinquished Popperian falsificationism in his later year (Feyerabend 1995a: 21-25). This marks his turn to irrationalist camp, for falsificationism is a criterion of demarcation between science and non-science. After his abandonment of falsificationism, his epistemological anarchism makes the problem of demarcation exposed.

In his early papers, Feyerabend’s falsificationism requests theories to be testable and their ability to explicate known phenomena (Preston 1997: 15). These requirements ensure the connection between theories and experience (Preston 1997: 15). In the connection between theories and experience, “theories must not be ad hoc, and they must be richer in content than what they are to explain” (Preston 1997: 15). It is worth noting that the content of theories is not confined to pure empirical content. They must explain more than the perceived sense-data. In Feyerabend’s account, a good theory always transcend experience, for “if the entities postulated for explanation completely coincide with laws in the domain of experience, then they are ad hoc with respect to these laws and therefore no longer capable of giving a satisfactory explanation.” (Feyerabend 1963c: 323, cited in Preston 1997: 15-16)
Since theories that do not go beyond experience must be unacceptably *ad hoc*, we should feel no embarrassment about constructing and pursuing theories, even the most highly metaphysical one, which go well beyond the data. (Preston 1997: 16)

According to Feyerabend, “all theories are on the same footing in being hypotheses” (Preston 1997: 16). This methodological assumption is the source of his later relativist thought of epistemological anarchism. However, the initial intention of this assumption is to ensure the openness of criticism by providing as many alternatives as possible. In Feyerabend’s account, this is the best way to eliminate ad hoc theories and guarantee scientific progress.

Obviously, Feyerabend’s transition to relativism and his early rationalist philosophy are primarily characterized by his methodological pluralism. Hence, we shall study Feyerabend’s falsificationism in the methodological light, instead of in the context of naturalistic falsificationism (Lakatos 1978). Methodological falsificationism is an advancement of naturalistic falsificationism and conservative conventionalism, for it recommends risky decisions to discard a falsified theory (Lakatos 1978: 112). “Decisions however may lead us disastrously astray” (Lakatos 1978: 112). However, most of the falsificationists, including Feyerabend, are willing to pay the price of risky decision “for the possibility of progress” (Lakatos 1978: 112).

Lakatos has distinguished two types of methodological falsificationism, viz., naïve and sophisticated methodological falsificationism. According to him, sophisticated falsificationism, unlike naïve falsificationism, “shifts the problem of how to appraise theories to the problem of how to appraise series of theories.” (Lakatos 1978: 119). Lakatos categorizes Popper as a sophisticated falsificationist (Lakatos 1978: 116), which should be attributed to Feyerabend as well. For he applies the rule of falsification on a series of theories instead of a single theory.

It seems to me that the more general our knowledge becomes the more important it will be to carry out tests in the manner indicated, not by comparing a single theory with experience, but by staging crucial experiments between theories.
which, although in accordance with all the known facts, are mutually inconsistent and give widely different answers in unexplored domains... the methodological unit to which we refer when discussing questions of test and empirical content consists of a whole set of partly overlapping, factually adequate, but mutually inconsistent theories. (Feyerabend 1995: 72)

According to Lakatos, proliferation of theories is a slogan for sophisticated falsificationism (Lakatos 1978: 121), for sophisticated falsificationist “cannot wait until the accepted theories are ‘refuted’...” (Lakatos 1978: 122)

While naïve falsificationism stresses 'the urgency of replacing a falsified hypothesis by a better one, sophisticated falsificationism stresses the urgency of replacing any hypothesis by a better one. (Lakatos 1978: 122)

However, Feyerabend, as a sophisticated falsificationist who holds fast to the principle of proliferation, has gone too far to conclude that “emphasizing falsifiability is therefore only one helpful move among many in the game of science...” (Feyerabend 2002: 171). This deviation from Popper has inevitably drives him onto the track of relativist methodological pluralism.

In his later paper Historical background: some observations on the decay of the philosophy of science, Feyerabend rejects Popper's falsificationism explicitly. He sketches Popper's methodology as:

science proceeds by identifying problems and solving them with the help of hypotheses which are (a) relevant, (b) falsifiable and (c) richer in content than the descriptions from which the problems arose. Having found a suitable hypothesis one (d) tries to falsify it and opposes any attempt to explain away difficulties. (Feyerabend 1995a: 22)

Feyerabend regards (a) to (d) as normative in nature. He asserts that “we may regard (a) to (d) as useful hints for the scientist which he may adopt but which he may also overrule if his problem situation demands it” (Feyerabend 1995a: 22). Feyerabend lists down eight reasons to reject them, for Popper holds that they are “necessary conditions”
(Feyerabend 1995a: 22). I selectively quote partial of Feyerabend’s assertions for the purpose of simplification.

The first reason is that theory exchange is not always by falsification. Examples are the Copernican revolution and the special theory of relativity. (Feyerabend 1995a: 22)

The second reason is that the ‘meaning’ of a hypothesis often becomes clear only after the process that led to its elimination has been completed... after many potentially refuting facts have been considered: the content of the theory we want to test and our decisions about falsifying instances are not as independent as a strict theory of falsification would want them to be. (Feyerabend 1995a: 23)

Fourth, contents do not always increase; they occasionally shrink, or are adapted in an ad hoc manner. (Feyerabend 1995a: 23)

Fifth, ad hoc adaptations are often the right step to take. (Feyerabend 1995a: 23)

Eighth, content increase and the realistic interpretation of the ideas that bring it about may be rejected for ethical or political reasons... (Feyerabend 1995a: 24)

In his Popper’s Objective Knowledge, Feyerabend criticizes Popper, who is once his admiration, at length. His counter-Popperian enterprise marks his notorious switch to irrationalist camp.

At first reading, Popper’s book makes a tremendous impression. This impression has blinded some of its already not too clear-sighted reviewers. But look at the reasons given and the doctrines proposed, consider the progress made in all fields, and especially in methodology, since the publication of Popper’s opus magnum, considers its predecessors, such as Mill and other thinkers of the nineteenth century, and you will be surprised to see how difficult it is to find a moderately acceptable argument, how often blunt assertions, equivocations, rhetorical questions take the place of rational discourse, how little more recent discoveries are taken into account and how small the difference is between the valuable parts of his book and the views of his predecessors. We are not too far from the truth when saying that with Objective Knowledge Popper’s research programme has entered its degenerating phase. (Feyerabend 1995a: 201)
2.2 Influence of Later Wittgenstein

Wittgenstein is one of the influential philosophers who realizes the linguistic turn in philosophy. His thought can be divided into two phases, which are confronting each other. His early thought is manifested in his masterpiece *Tractatus Logico-Philosophicus*; whereas his later thought is representatively expressed in *Philosophical Investigations*. Both books are tough, for the former is written in the highly systematic and concluding style; whereas the latter is expounded in a plain and "unsystematic" fashion.

Later Wittgenstein can only be understood with reference to his early thought, for his later philosophy aims to refute his early ideas. Wittgenstein's contemplating style is unique. According to Pears, "the discussions of particular topics stand out immediately but the general pattern only emerges gradually" (Pears 1997: 20). This is a best illustration of the general characteristic of both early and later Wittgenstein.

The influence of Later Wittgenstein on Feyerabend is concentrated in the theory of meaning. Hence, in section 2.2.1 I am narrowing down to provide a brief exposition of Wittgenstein's philosophy, both early and later, in this area. The connection between Wittgenstein's theory of meaning and Feyerabend's thought will be accounted for in section 2.2.2.

2.2.1 Wittgenstein's theory of meaning

The mission of Wittgenstein in his *Tractatus* is to search for "a theory of meaning which would explain the necessary truth of logical formulae." (Pears 1997: 20). He aims at "justifying the vagueness of ordinary propositions; for it can be justified" (Nb p70, cited in Fann 1969: 9). Wittgenstein holds that language is possible and perfect, for he claims that "all the propositions of our everyday language, just as they stand, are in perfect logical order" (Tractatus 5.5563, cited in Fann 1969: 9). Thus, Wittgenstein does not uphold the construction of ideal language, as most of the members of Vienna Circle
inclined to. "A language which had not 'grown organically' seemed to him not only useless but despicable." (Carnap 1978: 35). Wittgenstein’s central question is "how is it possible to make statements about the world?" (Fann 1969: 9). Before exploring his question and its connection to his theory of meaning, one has to know the primary aim of Wittgenstein in *Tractatus*.

In *Tractatus*, Wittgenstein wishes to draw the limit of language, world and thought, that is, to demarcate between sense and nonsense. One talk about the stuff beyond the limit of language will be deemed as talking nonsense. It is metaphysics that lies beyond the limit. Nevertheless, Wittgenstein differs from the members of Vienna circle in the sense that he does not reject metaphysics as nonsense. In Wittgenstein’s account, metaphysics itself is not nonsense, but talking about metaphysics is nonsense.

The whole sense of the book might be summed up in the following words: what can be said at all can be said clearly, and what we cannot talk about we must pass over in silence. (TLP preface, p3, cited in Pears 1997: 8)

According to him, ethics, values, and religions are metaphysics which we cannot talk about, for they cannot be formulated into logical formulae that are within the limit of language. It is because we can only know the fact which possesses logical form. Our language is not able to describe the logical form of metaphysical entities. Thus, we are unable to know anything about them. It is for this reason we should not talk about metaphysical entities. For Wittgenstein, "the sciences aim at saying what is true about the world; philosophy aims at disclosing only the logic of what can be truly or even falsely said about the world." (Ryle 1978: 119).

This divergent point of view with that of Vienna Circle is interpreted as "a strong inner conflict in Wittgenstein between his emotional life and his intellectual thinking" (Carnap 1978: 36) by Carnap. According to Carnap, he has once erroneously believed that the attitude of Wittgenstein towards metaphysics is similar to that of Vienna Circle.
because he "had not paid sufficient attention to the statements in his [Wittgenstein's] book about the mystical" (Carnap 1978: 36)

His [Wittgenstein's] intellect... had recognized that many statements in the field of religion and metaphysics did not, strictly speaking, say anything. In his characteristic absolute honesty with himself, he did not try to shut his eyes to this insight... Schlick, and I, by contrast, had no love for metaphysics or metaphysical theology, and therefore could abandon them without inner conflict or regret. (Carnap 1978: 36)

To make a meaningful statement about the world, one has to know the limit of language and world, that is, not to probe into metaphysics. In his early years, Wittgenstein claims firmly that the facts are corresponding with propositions. Facts consist of objects, whereas propositions consist of names. Hence, names are corresponding with objects too, in the sense that objects are the meaning of names (TLP 3.203, cited in Pears 1997: 127). According to Wittgenstein, facts bear their logical forms, which are inexpressible (hence metaphysical) structures of the facts. The logical forms of facts are determined by the relation between objects. (Hartnack 1965: 61).

In *Tractatus*, the analysis of propositions is "to set out their correct logical form" (Hartnack 1965: 62). Wittgenstein believes that propositions depict facts (Hartnack 1965: 62), that is, reality. In short, a proposition is a picture. The picture theory of the proposition is made possible by logical form.

Every proposition has a content and a form. We get the picture of the pure form... (Kenny 1975: 103)

Pictures can be more or less abstract, more or less like what they picture: their pictorial form can be more or less rich. But there is a minimum which must be common between reality and picture if the picture is to be able to portray even incorrectly: this minimum, Wittgenstein says, is logical form (Kenny 1975: 57)

In Wittgenstein's account, pictorial form is "common to picture and what it pictures" (Kenny 1975: 56), hence, "a picture represents a possibility in the real world" (Kenny
1975: 56). This possibility is of true or false. It is because the logical form is either correct or incorrect.

The concept of correct logical form is abandoned in *Philosophical Investigations*, for "the philosopher's task is not to correct the proposition, but to understand it." (Hartnack 1965: 62). The impact of this decisive change of Wittgenstein's thought is huge, that is, he has to forgo his fundamental picture theory which developed in *Tractatus*.

The idea of a correct form of a proposition is tied to the idea of its depicting a fact. And when there is no longer any logical form of a fact to depict, then there is no standard or norm to establish the correct form of a proposition... Each sentence is, as Wittgenstein puts it, 'in order as it is'. (Hartnack 1965: 62)

In later Wittgenstein's account, language does not depict the reality. It is because there is no such thing calls 'logical form'. Hence, to understand language "means to know not what it pictures, but what it does, what function it has, what purpose it serves, what work it performs." (Hartnack 1965: 62). Therefore, language does not tell us the absolute truth of reality but a mere tool to understand reality. Wittgenstein has made a crisp move from realism to instrumentalism.

According to the earlier work, a proposition may be in a correct or an incorrect form, according to the later work, a proposition has neither a correct nor an incorrect form: it can only be understood or not understood. (Hartnack 1965: 63)

Words generally are and need to be spectacles we look through, not at. (Hallett 1977: 84)

Language is an instrument. Its concepts are instruments. (Wittgenstein 1953, §569, p151e)

Concepts lead us to make investigations; are the expression of our interests, and direct our interests. (Wittgenstein 1953, §570, p151e)

Wittgenstein's abandonment of picture theory gives birth to his pragmatic theory of language. The meaning of language is no longer determined by true or false depiction of
a language, it is by its use. To learn the meaning of a word is to learn how to use it (Hartnack 1965: 55).

... But what is the meaning of the word “five”?—No such thing was in question here, only how the word “five” is used. (Wittgenstein 1953, §1, p3°)

Wittgenstein conceives a primitive language situation, which he calls a language-game (Hartnack 1965: 51). In *Philosophical Investigations*, Wittgenstein’s theory of meaning is “closely connected with the concept of a language-game” (Kenny 1975: 159). According to Kenny, one of the reasons Wittgenstein develops his theory of meaning as use and the notion of language-game is that he has realized that “he had been mistaken in regarding the correlation of names with named objects as a trivial, extra-philosophical matter.” (Kenny 1975: 159-160)

According to Wittgenstein, language is acquired not by explanation, but training (Wittgenstein 1953, §5, p4°).

The language is meant to serve for communication between a builder A and an assistant B. A is building with building-stones: there are blocks, pillars, slabs and beams. B has to pass the stones, and that in the order in which A needs them. For this purpose they use a language consisting of the words “block”, “pillar”, “slab”, “beam”. A calls them out; --B brings the stone which he has learnt to bring at such-and-such a call.—Conceive this as a completed primitive language. (Wittgenstein 1953, §2, p3°)

One is able to learn a language, for language is a form of life.

... And to imagine a language means to imagine a form of life. (Wittgenstein 1953, §19, p8°)

It is through sharing in the playing of language-games that language is connected with our life. (PG 65, cited in Kenny 1975: 163)
Hence, there is no single definition of language, for there is no monotonous form of life. The concept of language cannot be defined—"it has no defining property" (Hartnack 1965: 58). Hence, there is no single definition of "the meaning of language".

Instead of producing something common to all that we call language, I am saying that these phenomena have no one thing in common which makes us use the same word for all, --but that they are related to one another in many different ways. And it is because of this relationship, or these relationships, that we call them all "language". (Wittgenstein 1953, §65, p31c)

Wittgenstein defends this assertion by comparing language-games with games in general. What have ball-games, card-games and board-games in common? He says it is no use assuming that because they are classified as games they must have a property in common. They have not. ... We find there is no simple property common to all games, but similar properties. (Hartnack 1965: 58)

This similar properties of language-games is referred by Wittgenstein as "family resemblances"

I can think of no better expression to characterize these similarities than "family resemblances"; for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. etc. overlap and criss-cross in the same way.—And I shall say: 'games' form a family. (Wittgenstein 1953, §67, p32c)

In order to cope well with language-games, one shall master and obey the rules of language-games. It is the rules that determine the meaning of a language. In Wittgenstein's account, "obeying a rule" is analogous to obeying an order; and hence, governing the use. To use a language meaningfully, one has to apply the words and sentences in adherence to the grammatical rule. The rule can be established arbitrary and it must be followed conventionally after its birth.

Following a rule is analogous to obeying an order. We are trained to do so; we react to an order in a particular way. But what if one person reacts in one way and another in another to the order and the training? Which one is right? ... The common behaviour of mankind is the system of reference by means of which we interpret an unknown language. (Wittgenstein 1953, §206, p82c)
Arbitrary rules are legitimate in their use. One cannot attach a truth-value to rules

If you follow grammatical rules other than such-and-such ones, that does not mean you say something wrong, no, you are speaking of something else (PG 184; Z 320, cited in Kenny 1975: 177)

Thus, rule obeying is conventional. It is not necessarily determined by the supreme authority of reality.

To obey a rule, to make a report, to give an order, to play a game of chess, are customs. (Wittgenstein 1953, §206, p82e)

This conventional approach to rule obeying thus shapes Wittgenstein’s pragmatic theory of meaning, and underlying his view of philosophical methods. It is only via the rules that one can understand a language. For rules determine the meaning of a language.

To understand a sentence means to understand a language. To understand a language means to be master of a technique. (Wittgenstein 1953, §206, p82e)

...without these rules the word has as yet no meaning; and if we change the rules, it now has another meaning (or none), and in that case we may just as well change the word too. (Wittgenstein 1953, p147e)

2.2.2 Feyerabend as a Wittgensteinian

Commentators are divergent on the subject of Feyerabend’s conception of theory of meaning. As pointed by Preston, Rorty and Hacking who are skeptical about the importance of meaning hold that Feyerabend does not develop a theory of meaning; however, others like Putnam and Shapere assert that Feyerabend has a theory of meaning. (Preston 1997: 25). This division of view is primarily due to the different weight Feyerabend places on the importance of meaning in the course of his thought.
The contextual theory of meaning is of the most important influence Feyerabend receives from Wittgenstein. However, he does not elaborate at length on this topic, as he always treats it as unquestionable and ascribes it to later Wittgenstein (Preston 1997: 30). This contextual account having its root in Wittgenstein’s language-games.

Originally, under the influence of Wittgenstein I considered things very similar to paradigms (‘language games’; ‘forms of life’ were the terms I used then)... different language games with different rules would give rise to different concepts, different ways of statement evaluation, different perceptions and would therefore be incomparable. (Feyerabend 1978: 67 fn 114).

Feyerabend does not reveal the reason of advocating later Wittgenstein. He is familiar with early Wittgenstein, as he was one of the members of Kraft’s circle. Hence, his rejection of early Wittgenstein naturally brings about his attack on positivism as well. I guess one of the main reasons Feyerabend comes to advocate later Wittgenstein is that he has noticed the predicament of picture theory---that is, there is no standpoint from which to assess the relation between our words and the things to which we apply them (Pears 1997: 13). He has to get rid of this predicament, as his extension of theory of meaning to the domain of philosophy of science requires the justification of his scientific realism. Thus, Feyerabend dogs Wittgenstein’s foot step by (1) dismissing picture theory; (2) expounding the relation of words and reality in the light of conventionalism.

It is the contextual theory that best elaborates conventional account of realism, which is adopted by both Feyerabend and Wittgenstein. According to later Wittgenstein, names do not have intrinsic meaning that shaped by objects. Conversely, a name can have a meaning in the absence of its bearer, viz. object (Fogelin 1976: 98). Meaning of a name is conferred by the context of language’s use, which is not static, as called by Wittgenstein a “language-game”. In most of the Feyerabend’s writings, he uses the term “theoretical system” or simply “theory” to refer to language-game.

The meaning of every term we use depends upon the theoretical context in which it occurs. Words do not “mean” something in isolation; they obtain their meanings by being part of a theoretical system. Hence if we consider two contexts with basic principles that either contradict each other or lead to
inconsistent consequences in certain domains, it is to be expected that some terms of the first context will not occur in the second with exactly the same meaning. (Feyerabend 1965: 180, cited in Sankey 1999a: 9)

Hence, it is obvious that different theories (language-games) result in incommensurable theories, according to Feyerabend. For different theories are governed by different rules and principles. There is no common use of a scientific term. Thus the meaning conferred on a common term that exists in two theories is different. The justification of a theory’s/language’s legitimacy is not the mirrored external reality, since this picture theory has been discarded by both Feyerabend and Wittgenstein. It is the use of a term in its theoretical/language’s context that do the justification. Thus, it is possible that a common term used in two theories/languages does not possess a common meaning, and hence incommensurable, for the terms are used conventionally in their own theoretical/language’s context.

Feyerabend interprets Wittgenstein’s theory of meaning in two approaches. First, Feyerabend claims that contextual theory “identifies the meaning of a statement with its ‘assertion conditions’, the condition under which a speaker would be justified in asserting it.” (Preston 1997: 24). Second, Feyerabend views Wittgenstein’s theory of meaning in instrumentalist approach, that is, meaning of a word as its use (Preston 1997: 24). However, Feyerabend does not follow up strictly either of these approaches. He has modified them to his account of the meaning of scientific terms, which is different from Wittgenstein’s pragmatic account (Preston 1997: 25). The crucial point of difference between Feyerabend’s and Wittgenstein’s theory of meaning is Feyerabend’s unusual account of what counts as a theory. Unlike Wittgenstein, Feyerabend does not confine the theory as mere language-games. Conversely, he means more than language, and proposition. He does not define the meaning of “theory” in a precise sense, as he uses it to refer to culture, political idea, scientific theory and etc.

When speaking of theories I shall include myths, political ideas, religious systems, and I shall demand that a point of view so named be applicable to at least some aspects of everything there is. The general theory of relativity is a theory in
this sense, 'all ravens are black' is not. (Feyerabend 1965c: PPI, p.105, n.5, cited in Preston 1997: 26)

In spite of his vague definition of theory, Feyerabend does assert that the meaning of the constituent of a theory is depending on its broader theoretical context, regardless what the theory is. To understand how the meaning is conferred to a term one needs to understand how the context (of cultural, scientific and etc) works. The "context" does not refer to a term's arbitrary context of use, for Feyerabend objects the radical instrumentalist account (Preston 1997: 28) which places no emphasis on the conventionality of rules. Indeed, Feyerabend asserts that theoretical context is governed by its rules and principles which should not be violated arbitrarily in use.

[Feyerabend's] contextual theory states that the meaning of a term or statement is determined by the surrounding context of theoretical principles, syntactic and semantic rules in which it figures. It is important to remember that the context invoked is truly theoretical context and not just any (psychological, sociological) context... what determines the meaning of a term might, after all, be the context of law-like generalizations in which it occurs. (Preston 1997: 28)

When Feyerabend extends his scientific contextual theory to cultural aspects on epistemological level, he treats the cultural contextual theory on a par with that of scientific. I think it is primarily because Feyerabend does not distinguish rules which underlying the theories according to their nature. Feyerabend inherits Wittgenstein's conception of rule without modification, that is, in a form of monolithic. This has caused a lot of ambiguities in his thought and it opens the door to his later relativism.
End Note:

(1) Their correspondence can be found in *For and Against Method*, a collection of Feyerabend’s and Lakatos’s correspondence, which is edited by Motterlini.

(2) This justifies the need of my exposition on early Wittgenstein in section 2.2.1

(3) Some scholars, like Anthony Kenny, use the term ‘states of affairs’

(4) This is a view which Wittgenstein holds fast in *Tractatus*

(5) It is because different rules are imposed and obeyed.

(6) I will discuss it in chapter 3, under the section of Feyerabend’s scientific realism.

(7) Such as religious system.

(8) That is, theoretical principles and semantic rules in scientific theory; and rituals in cultural system.

(9) In Feyerabend’s broadest sense.