Simulated versions of naturalized epistemology are quite seductive. For, even if the adherents of those versions make claims of doing epistemology, interestingly enough, often those versions tempt us to give up the age old epistemological problems. Some of those versions plead for the annihilation of epistemology and many of those versions try to 'contain' epistemology in natural science without containing natural science in epistemology. Quine's Naturalized Epistemology (QNE\(^1\)) is quite distinct in this respect in that it advocates for the 'reciprocal containment' of epistemology and natural science. Obviously, QNE is not nihilistic. But the optimism it professes is not by means of a complete surrender by either epistemology to natural science, or vice versa. Epistemologists and natural scientists are kept in the same boat, to wit, Neurath's boat is the only boat in the waters of man's wisdom.

Richard Rorty's epistemological nihilism and Goldman's *epistemics* can be viewed as the strong representatives of the above mentioned, broadly divided, two groups of simulated versions of naturalized epistemology. For Rorty's viewpoint outrightly denies the possibility of any fruitfully pursued subject as a successor to

\(^1\)Hereafter "Quine's Naturalised Epistemology" has been abbreviated as "QNE".
epistemology; instead of simply denying the viability of epistemological enterprises currently undertaken or traditionally taken care of. In case of epistemics, though natural science 'contains' epistemology, epistemology 'contains' philosophical doubt in the sense that 'scientific doubt' is neglected in epistemics. Consequently, instead of maintaining epistemology as to be completely descriptive and non-evaluative, epistemics is advanced as a descriptive (contra non-prescriptive) but evaluative (qua normative) enterprise. Thus epistemological nihilism can be viewed as the best of all simulated versions of naturalised epistemology those attempt to annihilate epistemology. It argues for the impossibility, in principle, of epistemology. So also, epistemics can be viewed as the best among those of the group which attempts to 'contain' epistemology in natural science because, to advance optimism in epistemology, it attempts to retain the normativity though the enterprise is primarily a descriptive one.

In order to highlight the methodological perspective of QNE, in this chapter, QNE has been distinguished from Rorty's epistemological nihilism and Galdman's epistemics. However, as the main thrust is to specify QNE'S methodological reorientation from first philosophy to philosophy as science par excellence, it should not be considered as a comparative study between QNE and epistemics or between QNE and epistemological nihilism; or an argument for the refutation of epistemics and epistemological nihilism. The discussions on epistemogial nihilism and epistemics are accounted here in order to explain the methodological bearing of the fundamental features like "reciprocal containment" and 'scientific skepticism' which play a
vital role in the methodological perspective of QNE—Especially, it is to argue in favor of scientific skepticism which *ipso facto* supports the 'reciprocal containment'.

The most significant feature of QNE, to distinguish it from some simulated versions, is that it investigates the old epistemological problem in a different manner. "Given only the evidence of our senses", Quine asks in the first page itself of *RR*, "How do we arrive at our theory of the world?". And, "a description of the three-dimensional external world and its history"² is made out of "the sensory information that would reach"³ us at our sensory surfaces. For "we know external things only mediately through our senses". "Physical things generally, however remote, become known to us only through the effects which they help to induce at our sensory surfaces"⁴.

Thus "the problem is on the relation between the meager input and the torrential output"⁵. But this relation itself is a part of this world and, hence, to be studied like any other phenomenon of this world. No *a priori* presuppositions are to be believed dogmatically to make out their relation to be fixed *a priori*. Repugnance to apriority

²*OR*, p.33.

³*RR*, p.2.


⁵*OR*, p.83.
is not offensive to our 'conceptual sovereignty' because the wide gap between the 'data' and the 'knowledge' of the external world is deciphered more scientifically by the assertion of the 'underdetermination' of theories by data. Man is seen as a part of this world and we can investigate to 'find out cues he could have of what goes on around him. Subtracting his cues from his world view, we get man's net contribution as the difference- This difference marks the extent of man's conceptual sovereignty - the domain within which he can revise theory while saving the data".

The interesting aspect of this investigation is that it addresses the old epistemological problem in a different terminology, a terminology commonly supposed to be pertinent to natural sciences. It seems to be deteriorating the austerity of the old epistemological problem by expressing the problem of our knowledge of the external world as a problem between 'data' and 'theory', as if it is a computed relation of the 'input' and 'output'. But this seeming deterioration is, in fact, an 'enlightenment' to a genuine empiricistic theory of knowledge and the alleged austerity turns to be dogmatic. The problem itself is not dogmatic but the way it is undertaken. Quine's undertaking is enlightening, he repudiates that dogmatic looking into the epistemological problems and reorients them to their scientific perspective. This reorientation is not a matter of sheer terminological adoption. It is an explanation of the scientific endeavour suggested over the utter failure of a dogmatic outlook about

\textsuperscript{6}WO, p.5.
our knowledge of the external world. The problem remains the same but, instead of putting forward futile efforts on the basis of certain vague and dogmatic presuppositions, a different approach is recommended altogether. The futility of the earlier approach, the foundationalistic one, is shown in the way of repudiating the ASD and advocating for the indeterminacy of meaning and reference. Now we can switch on to the various important aspects of looking towards the same problem in a scientific way.

The first variation in its outlook that QNE keeps, unlike a foundationalistic approach, is the emphasis on the web of beliefs. An epistemic import of a belief, for example, the world is full of demons, amounts to nonsense unless the origin or growth of such a belief is not examined. The same belief can be held by a child, a grandmother, a lunatic and even by a philosopher. But the considerations of the external world made out of the experiences they encounter in their environment can be quite different and, even, contrasting in nature. Thus to understand their knowing of this external world and to evaluate the belief they hold, one is to study the origin and growth of their beliefs. This requirement leads to have an alliance with psychology and epistemological questions about beliefs are turned to be genetic questions.

Genetic questions are the questions concerning the origin, growth, endurance and deterioration of our beliefs. Growth of knowledge is commonsensically adjudicated as the quantitative rise of the number of persons of society who confirm in their actions to a particular standard of beliefs which is prescribed as the best for the
quality-evaluation. When a particular standard is prescribed and adopted without objection, evaluation of the growth of knowledge is not a debatable issue, on ordinary parlance. But the kind of standard taken up varies from conservatives to liberalists, from idealists to pragmatists and so on. With the variation of these orientations varies the determination of the quality (developed or undeveloped) because such a determination is dependent on the standard undertaken. Such a scenario is generally observed on certain crucial stages of social progress. However, the growth of knowledge pertinent to the genetic questions in epistemological perspective does not vary in that way.

A foundationalistic account does advocate certain standard though the standard is meant for the evaluation of the truth/certainty of beliefs instead of for the evaluation of the social progress or social wellbeing. Emphasis is extended to certain basic foundational principles supposed to be the standard or 'touch stone' of certainty/truth, in their prescriptions. An a priori epistemic status is conceded to these beliefs (foundational) such that one cannot meaningfully question that prescription. Thus what bothers then the most is to justify that privileged status of an account they prescribe. This quest for justification, not of the belief one holds, but of a standard's privileged epistemic status on the basis of what a belief is alleged to be justified/unjustified, keeps the foundationalists going on a wrong track.

A genetic question in QNE is neither a question about the austerity of a method nor about the certainty or truth of a framework with a prescriptive base. It is a non-prescriptive or descriptive
question about the beliefs in view of the fact that an epistemological comment cannot be passed over a belief without the understanding of its nature of origin, growth and endurance. The value of truth, morality, aesthetics or of legal procedures as such is not the point to ponder over. The norms determining such values are based on certain orientation of a theorist or a society. This orientation is significantly dependent on the conceptual framework adhered. Thus the truth value of a belief, or its certainty, is quite dependent on the framework taken into account.

But neither a particular framework can explain what really is the nature of the external world, nor any of the possible alternative frameworks can determine what we exactly know about the external world. Hence there is no possibility of an explanation of reality per se, nor there is any justification of the framework wise determined truth. If either of the two were possible, the other could have been worked out. Reality being explained finally, by any particular framework, could have enabled to make out the truth justified by a framework; and, vice versa. But the futility of a search for these reality and truth is shown by the establishment of ontological relativity and IT.

An answer to a genetic question is distangled from the Carnapian framework-business by keeping a descriptive role in explaining the nature of beliefs about the external world. What importantly enlightens is its impetus to a scientific search in depth to solve the old epistemological problem. Once the IT and ontological relativity are accepted as scientific findings of an epistemological programme.
such that the gap between the 'meager input' and the 'torrential output' cannot be explained in terms of particular frameworks, it naturally turns to be a scientific search if a remedy is sought after, in that regard, instead of carrying out epistemological programmes on the same level that remains unfruitful due to IT and ontologies! relativity. The remedy a genetic answer can suggest is this: Understand the underlying organic and social mechanism of beliefs or belief systems such that the network of beliefs in a framework can be understood in depth to make out the above said gap in a better way. For what stands responsible for a wrong diagnosis of the relation between a belief and a framework and, thereby, for the incurable diseases -- IT and ontological relativity -- is the misunderstanding of the nature of the belief itself. We must suffer from the seeming incurable disease, we need not cry in vain, because it is a blessing in disguise.

The genetic question about beliefs blurs the Carnapian distinction between internal questions and external questions. No special status is conceded to the beliefs supposed to be foundational to a framework. Those are ones among all the beliefs we can possibly uphold and, thus, vulnerable to tests conductable for any belief's origination, growth, endurance and deterioration. So also, the ASD becomes meaningless under a genetic inquiry. The kind of truth does not matter because there is no such difference in kind, not that there is a difference in kind and it is neglected. What does matter is the belief's nature which is alleged to be analytically true or synthetically true. And the nature of a belief cannot be conceded with any privileged epistemic status a priori, since a belief is
naturally produced by a belief processing mechanism apart from the fact that this mechanism is conditioned in various ways. It is not only that a genetic inquiry disparges the ASD, the ASD's refutation also encourages a genetic inquiry. Untenability of the ASD entails the untenability of the epistemic import of the internal and external distinction and this, in turn, precludes the question of certainty or any other appraisal of knowledge in some absolute terms. Impossibility of an evaluation in some absolute terms refutes or discourages a normative investigation and thus the genetic inquiry is supported.

An immediate corollary to the IT is that an uttered belief is indeterminate. A belief can be uttered in an indefinite possible ways, even in conflicting or contrary ways, there remains no 'fact of the matter' to utter the belief in the correct way such that the audience would avail a determinated meaning. This refutation of linguistic absolutism prevents a search of the meaning of an utterance or the belief pinned down. Thus a philosophical inquiry based on such a linguistic absolutism becomes enviable and what is left open is either an inquiry based on non absolutistic determination of meaning or an inquiry of beliefs where meaning gets less importance. Both the alteratives are cognateal and naturalistic. The former falls in

linguistics and the latter in psychology. The psychological inquiry is directly linked with the genetic inquiry. In a sense, etymology turns to be a part of etiology; both are genetical but with different perspectives.

Viewing a belief from an ontological point, the reality of belief is dependent on the system of beliefs it belongs to and also on a background system of beliefs. Thus the analysis of the belief itself, in isolation of the system it belongs to and the background system of beliefs, is completely blocked. Thus a Cartesian establishment of a belief's distinctness and clearness becomes meaningless since it looks into a belief without the systems. And, a foundationalistic evaluation on an ontological footing is a myth since the standard belief allegedly prescribed to be the core of a good argument does not stand relativistically, it is kept there in isolation of the system or background beliefs. The encouragement a genetic inquiry gains from such blocks is that the background of the beliefs can be studied genetically. Instead of putting certain metaphysical standards to ascertain the reality of a belief, our cognitive mechanism can be studied to find out the history of a belief in order to identify a genuine background system.

Genetic questions cannot be answered by mentalistic semantics which hopes for any 'understanding of the workings of language in mentalistic terms. For the question is ultimately aimed at a 'physical explanation' on the basis of a settled behavioural explanation' of our beliefs and understandings. That is; the affinity of mind and language' can be acknowledged and worked out from
language to mind, not from mind to language, by an examination of the
disposition of verbal behaviour.\textsuperscript{8} \textit{Prima facie}, a mentalistic approach
is not an answer for the questions about beliefs because it tries to
explain the workings of our language, not the workings of our
beliefs. The fact that an understanding of the workings of our
language can enable to have a clearer and more substantial
understanding of our mind or beliefs generated in mind, it could have
had a hope. But it begs the question by adhering a mentalistic
explanation of language. Instead of answering questions about the
beliefs, in a sense, it answers the questions about language in terms
of beliefs understood in the capacity of mental instruments.

From the above considerations of the genetic approaches one may
misconceive that a true belief is not distinguished from ordinary
beliefs. The distinction is there but with no concession of an
epistemic apriority for any true belief. Gradualism - from ordinary
beliefs to true beliefs and from true beliefs to truer beliefs and
from truer to more truer and so on - underlies a genetic approach. A
true belief is no less a belief and no better than any other belief so
far as a genetical epistemic inquiry is made over it. What I said so
far about the genetic questions can be thematically visualized like
this: In the way of going against foundationalism by means of refuting
the ASD and accepting the IT as well as the ontological relativity, one

\textsuperscript{8}Quine, W.V.O. (1975) "Mind and Verbal Dispositions", in
supports a genetic approach. And, more importantly, it is not only that a genetic approach endorses to anti-foundationalism but also that it finds a viable way out of the epistemological discomforts. However it attempts to suppress the discomforts in view of the fact that no eternal relaxation is possible in epistemological investigations.

"No eternal relaxation" is an other way of saying that Cartesian doubt is untenable. For a Cartesian doubt demands a truth in a priori or truth that survives for ever as unrevisable so as to provide an eternal relaxation for the epistemologists. A genetic inquiry pleads for a scientific doubt. It pleads for a doubt based on certain background knowledge and the clarification of the doubt is further susceptible to another doubt. That is, a scientific doubt works on a clarification of an earlier scientific doubt and when it is clarified it stands as a genesis of later scientific doubt. "Illusions are illusions only relative to a prior acceptance of genuine bodies with which to contrast them." It is baseless to doubt the reality unless one is aware of illusion. "The basis of skepticism is the awareness of illusion, the discovery that we must not always believe our 'eyes'. Knowledge of the fact that sticks do not bend by immersion compels a skeptic to offer the "example of the seemingly bent stick". So also, 'his examples of images, after-images, dreams and the rest are

"NNK", p.67.

Ibid.
parasitic upon positive science however primitive'. Thus reality and illusion are distinguished on the basis of 'rudimentary physical science'.

Cartesian doubt is not the proper starting point. It does not permit to have any scientific assumption that would enable to have a scientific doubt. It requires a complete detachment from science, to start with an a priori epistemic evidence and to end in justifying the truth (certainty) of our beliefs about the external world on the basis of that evidence (criterion). It is unscientific. For the method of doubt it envisages goes beyond science, its origin is unscientific. Doubt to all of science amounts to the preservation of non scientific spring-board. For the vital point of a scientific doubt is that it must be based on a prior acceptance of certain belief system or frame work of knowledge. There is a 'curious interplay between doubt and knowledge'. Strictly speaking, doubt is meaningless unless it is based on knowledge.

Cartesian doubt becomes meaningless if one identifies a doubt's meaningfulness with a doubt's becoming scientific. But let 'meaning' to be concieved in what ever broadest sense possible. Cartesian doubt falls outside the realm of scientific doubts even if it is not meaningless. However the nature of doubts envisaged in QNE is not just a terminological reformulation of "meaningfulness . It proclaims

11 Ibid., p.68.

12 Ibid., p.67.
that there is no sense of a non scientific doubt. The refutation of the ASD and the establishment of the IT together can enable to say that a Cartesian doubt is quite dogmatic and unviable. There is no ASD and all our beliefs being classified under synthetic statements entails that there is no meaningful doubt to all synthetic statements altogether. For to doubt something is to believe something else or, at least, to believe something to be false and there is no belief beyond syntheticity. Again if there is no determinacy of meaning and, thereby, there is no framework core statements to legitimize a meaning to be determinate, there is no possible transcendental or linguistic a priori core statements of a framework that could extend meaning to such a doubt.

In QNE, the claim that skeptical doubts are scientific doubts play a major role in explaining the sense in which epistemology is a part of natural science and, thereby, for an explanation of how an epistemologist can make free use of a scientific theory. It explains how epistemology is continuous with natural science. That is, how the philosopher and the natural scientist are in the same boat (reminding Neurath's metaphor). A hurdle to this explanation is the misunderstanding of the legitimate licence QNE issues for a skeptic's reductio ad absurdum. The misunderstanding recurs here, again, due to the uncritical acceptance of the Cartesian doubt. However the point is more deep in the sense that the charge is not directly against a scientific doubt's identification with a meaningful doubt. The charge is not on a semantical ground, it is against the epistecological reorientation altogether. The reorientation of identifying Skeptical doubts with scientific doubts is disparaged with a misconception that
such a reorientation is no more epistemological. The charge is, similar to the previous charge against a scientific doubt, that a mere terminological variation of 'psychologism' has been made by a naturalist to do epistemology while no epistemological problem is considered at all. This problem can be outlined as it follows:

That from

(i) Skeptical doubts are scientific doubts

how does it follow that

(ii) Epistemology is a part of natural science

and (iii) An epistemologist can make free use of a scientific theory?

If the skeptic is allowed to argue by *redactio ad absurdum* then, the challenger says, (ii) and (iii) do not follow from (i).

This problem's solution takes care of the following dilemma. Either

(a)you adhere epistemology without skepticism and, thereby, an epistemology completely delinked from traditional epistemological questions such that it actually turns into "physiology of belief formation". Or,

(b) you accept an epistemology which roots out skepticism and, thereby, an epistemology completely on line with traditional epistemological problems such that it actually makes no sense of being named as 'naturalism' except that it uses such terms like 'stimulation', 'observation', 'data', 'hypotheses', 'theory' and so on pertinent to natural sciences without having any methodological significance of the old epistemological problems.
Both the horns of the dilemma identify 'skepticism' with 'radical skepticism', with skepticism which over reacts after getting the license of reductio ad absurdum. Thus the dilemma can be overcome by holding the two horns if that identification\textsuperscript{13} can be examined so critically that the over reaction can be suppressed down.

The formulation of the reductio ad absurdum (RAA) can be maintained, following Stroud,\textsuperscript{14} that no belief about the external world on the basis of the assumption that 'science is true and it gives us knowledge' is true and no belief about the external world on the basis of the assumption that it (science) is not true and it does not give us knowledge is true. That is, for example, assuming S we can infer K to be true and assuming \neg S we can infer K to be true too. Consequently we cannot assert K because it would lead to a contradiction i.e. (S \& \neg S). We cannot assert that we know something about the external world with certainty, it would lead to the contradiction that science is true and gives us knowledge as well as science is not true and it gives nothing amounting knowledge.

However there can be two different conceptions of RAA in relation to its epistemic status. An epistemic position completely independent of any ontological commitment is quite different from an epistemetic

\textsuperscript{13}That is, the identification of a doubt with a Cartesian doubt.

position dependent on an ontological commitment. RAA employed from that purely epistemic level, without any ontic ground, can be called as RAA external and the other one as RAA internal. Strend's argument can be destructive to QNE if the RAA external is possible at all. It is possible if there can be any epistemology completely delinked from an ontology. That is, say, if we can know or doubt something transcendentally such that there is no reality of the object that we know or doubt. Can there be a knowledge or doubt about an unreal? And, can there be a reality that does not come under the purview of natural science (present or future)? To answer these questions negatively is to answer that RAA external is untenable.

Of course our doubt follows a belief which is illusive, we doubt on an illusive object. When the reality is believed to be something else other than what is believed to be true now, then we start doubting. Or, at least, after we fail to understand certain features of the nature/external world in terms of a believed reality, we doubt that reality. In a sense, we do doubt about the unreals (illusive realities) but it is either with a background of some reality that conveys the illusive character of that unreal or, without any particular reality's knowledge, with a background of the reality of certain features encountered in the external world/nature. Thus, in general, the unreals susceptible to any doubt are the unreals with certain ontological backgrounds. It is a commitment either to a definite alternative ontology or to an indefinite ontology of the external world. If we don't have any such ontological commitment then there cannot be a knowledge of reality, nor a doubt on unreality. But with such a commitment, a doubt on an unreality really Means a
presupposition of some other reality. That is, there is no unreality without a supposed real background and there is no supposed reality without an element of unreality in it.

Reality beyond the purview of natural science is of no sense. For natural science concerns the whole of this world and one cannot find reality outside the world. Despite of this what attracts one to go beyond is the underdetermination of theories by the data given. One would be attracted for a search of certainty. But this certainty is a myth. No 'cosmic exile' is possible. To go beyond the reality under the purview of natural science is to stand nowhere. There is no reality without an element of unreality in it. One can doubt natural science of this day as a whole but, thereby, he cannot be said of possessing an external position. To doubt natural science itself is a 'deliverance of natural science'. Such a legitimate doubt is nothing but an assertion of an alternative set of natural sciences altogether. Otherwise, it is just like an arbitrary "No" issued nonsensically towards natural science. Or, it is an arbitrary "Yes" issued nonsensically towards a kind of natural science which reads no reality. To, wit, it is nothing but physics that really reads reality.

Ontology is coextensive with epistemology. For about what we know or doubt is a 'posit' and there cannot be any sense of knowing something absolutely. And, the ontology of a 'posit' is relative to the background beliefs, hence, relative to an epistemology. Thus there regains no ontology independent of an epistemology and there remains no epistemology independent of ontology.
Since there remains no sense of ontology beyond the purview of natural science and there is no epistemology independent of ontology, epistemology is quite dependent on natural science. Natural science is also dependent on epistemology. For ontology is meaningless if it is bereft of having any relation with epistemology. In other words, there is a 'reciprocal containment' between 'natural science' and 'epistemology'. Natural science contains epistemology and epistemology contains natural science. Of course the former 'containment' is viewed from an Ontological point. That the reality over what epistemological problems arise is a part of the reality under the purview of natural science. The latter 'containment' is viewed from an epistemological point. That the knowledge of any reality studied in natural science presupposes a background knowledge of that reality and, thereby, comes under epistemology since epistemology is concerned with all the possible levels of knowledge about a reality. These two view points cannot be independent of each other amounts to ' that the 'reciprocal containment' is inevitable.

The root of that dependency is the fact that ontology and epistemology cannot be separable in any clearer way. Infact, this inseparability brings about the indeterminacy of meaning as well as the thesis of under determination of scientific theories. If ontology were separable from epistemology then there would not be the problem of a relation between the 'meager input' and the 'torrential output.' The gap would have been there without creating any problem because the input's status could have been left on an ontological level and that of the output on an epistemological level.
Although an understanding of this reciprocal containment between natural science and epistemology can enable to overcome the problem that how in QNE it is both (1) The skeptic is "quite within his rights in assuming science in order to refute science"\(^ {15}\) and (2) the problem of the relation between the 'meager input' and the 'torrential output' is really an epistemological problem. Stroud's objection can be traced back to his objection\(^ {16}\) that Quine affords a privileged, epistemic status to the logical truths and observation sentences.

If logical truths are conceded to un revisability then an a priori epistemology can be beyond natural science as well as independent of ontology. So also, if the observation sentences are indubitable due to their immediate evidential base on sense experience or stimulations of the stimulus-response mechanism, then natural science is no more contained in epistemology as well as ontology gets absolute freed from epistemology. However no such concession is offered in QNE such that epistemology and ontology can be absolutely separated from one another, nor the reciprocal containment between natural science and epistemology can be damaged altogether. In QNE, logical truth is after all a convention\(^ {17}\) and, thereby, it is not immune to revision.

\(^{15}\) "NNK", p.68.

\(^{16}\) In Stroud, B. (1969) " Conventionalism and the Indeterminacy of Translation", in Davidson and Hintikka, J. Eds. words and Objections pp.82-96.

What is really meant by "some logical truth" which are not to be revised is that logical truths are not to be revised for the sake of 'amateur psychology' but only in 'extreme' case of deviation from all 'general psychological similarities'. So also, even 'what to take as the natives signs of assent and* dissent is a decision by the linguist so that it 'has much the quality of analytical hypothesis, even though it underlies stimulus meaning'\(^1\) that an observation sentence's evidential status owes to that decision (which is more pertinent to epistemology than ontology). Thus, after all, observation sentences are revisable when they are in relation to a theory since the service they extend are no less based on epistemological grounds. They are no less uncertain than the analytical hypotheses. And, there is no meaning of revisability unless those are related to a theory. Thus what is really meant by the 'starting point of scientific theory' and therefore by 'those are unrevisable' as well, is that observation sentences are not to be revised for the sake of a theory itself but only in extreme cases:

"an extreme case, the theory may consist in such firmly conditioned connections between sentences. . . . The tail thus comes in an extremity, to wag the dog"\(^2\)

No statement is immune to revision. Observation sentences, sentences on the periphery\(^3\) of a theory and, even, logical truths are

\(^1\)bid, p. 317.

\(^2\)WO, pp. 18-19.

\(^3\)Quine, W.V.O. (1969) "Replies (To Stroud)" pp. 316-317. Quine acknowledges that what he alludes as periphery in TDE stands parallel to 'stimulus' in WO.
revisable though in extreme cases. The three important characteristic features I said so far of the QNE can be described, precisely, as the genetic approach, the scientific 'skepticism' and the thesis of reciprocal containment. It is also shown that these three are interdependent and supporting to each other. One of the broader issues that gets support from all these three is that epistemology is not withered by QNE. The other broader issue that needs explanation is that epistemology is continuous with natural science. The above said reciprocal containment does provide a methodological base, in this regard, but what I want to discuss further is the way in which the methodology must be carried out without any damage to QNE. This can be shown in distinguishing QNE from Rorty's 'revolutionary nihilism' and Goldman's 'historical reliabilism'. Before pointing the distinctions let me say about the continuity: between epistemology and natural science.

The IT established on an account of stimulus response mechanism recommends a genetic approach in the study of language learning. The negative proclamation in construction of the IT is that one hopelessly attempts to determine meaning. There is no 'fact of the natter' [i.e. no independent ontology]\(^{21}\). The positive proclamation is the availability of 'intersubjectively verifiable adequate occasion sentences' i.e. the observation sentences. These sentences, being intersubjectively observable, work as the 'starting-points in the

\(^{21}\) Notice the move of dependency between semantics and ontology parallel to that of between epistemology and ontology,
learning of language* and, also, as 'the starting-points and the checkpoints of scientific theory'\textsuperscript{22}. Thus, from the root-point, from the level of observation sentences accounted in stimulus-response mechanism begins 'a partnership between the theory of language learning and the theory of scientific evidence'\textsuperscript{23}. This partnership from its rudimentary level 'must continue'\textsuperscript{24} and this recommends 'a strategy for the scientific study of scientific method and evidence' known as the genetic approach.

The partnership must continue mainly because of the fact that the "channels by which, having learned observation sentences, we acquire theoretical language are the very channels by which observation lends evidence to scientific theory. It all stands to reason; for language is man-made and the locutions of scientific theory have no meaning but what they acquired by our language to use them"\textsuperscript{26}. What recommends the genetic approach is the requirement of an investigation in details of these channels and what guarantees its viability is that 'the learning of language goes on in the world and is open to scientific study'.\textsuperscript{27}

The import of the partnership between the theory of language learning and the theory of scientific evidence, in relation to our

\textsuperscript{22}"NNK", p.73.
\textsuperscript{23}Ibid, P.74.
\textsuperscript{24}Ibid.
\textsuperscript{25}Ibid., p.75.
\textsuperscript{26}Ibid., P.74.
\textsuperscript{27}Ibid., p.75.
characterisation of the distinctiveness of QNE, is that semantics turns to be naturalistic and provides an impetus to the genetic approach in QNE such that, the analytical foundationalism is repudiated for its philosophical misorientation yet, unlike Forty's repugnance to the theory of language, QNE finds a viable way for semantics as well as for epistemology. That is, it naturalises semantics as well as epistemology. Rorty indentifies knowledge with 'social justification of belief and repudiates any attempt in search of an 'accuracy of representation'\(^{28}\). He attributes 'epistemological behaviourism' to Quine, Sellars, Dewey and Wittgenstein and by 'epistemological behaviourism' he really means the social authority over our epistemic explanations contrary to the foundationalistic subscription of the epistemic authority over the social or natural explanations \(^{29}\). Rorty considers two ways of viewing knowledge: Knowledge as the "relation to propositions" and knowledge as the "relation to objects those propositions are about". In the former case, justification is a relation between the proposition in question and other propositions from which the former may be inferred. In the latter case, justification is a previleged relation to the objects. Against the first view, Rorty makes an anti-foundationalistic appeal

\(^{28}\) Rorty explicitly says, "We understand knowledge when we understand the social justification of belief and thus have no need to view it as accuracy of representation". (Rorty, R. (1979), *Philosophy and the Mirror of Nature*, Princeton University Press. (Basil Blackwell, Oxford, p.170.

\(^{29}\) Cf. Rorty, R. (1979), p. 174. He says Explaining rationality and epistemic authority by reference to what society lets us say, rather than the latter by the former, is the essence of what I shall call "Epistesulogical bahaviourism" an attitude common to Dewey and Wittgenstein.
to the argument of infinite regression about "propositions-brought-forward-in-defence-of-other-prepositions"

'Thus a social justification is called for on the ground that this would be foolish to keep conversation going on the subject [i.e. the study of justification as a relation to propositions] once every one, or the majority, or the wise, are satisfied, but of course we can"  

Against the second view his remark is this: "We will want to get behind reason to causes, beyond argument to compulsion from the object known, to a situation in which argument would be not just silly but impossible. To reach that point is to reach the foundations of knowledge".

Both the views do not cohere with QNE. The second view runs something like this: That there are physical objects in themselves which do compel one to know them as we do know them and, thereby, there is no need of any argument and, even, there is no possibility of any argument. In other words, epistemology has an independent ontological foundation such that knowledge is a 'compulsion', a knower is compelled to know that p under the compulsion of (the object/fact) what p is about. No 'sovereignty' or 'creativity' of a knower is recognizable. Hence, it is argued, there is no possibility of an argument.

31 Ibid.
32 Ibid.
Quine does accept the reality of the physical objects of 'people, stick, tables, atoms and so on'\(^33\). They are all posits in the sense that there is no independent reality. There is ontological relatively. Thus, even if justification/knowledge is a relation between the object and the proposition about that, this relationship is not at all asymmetrical. It is symetric in the sense that an object is an object of knowledge only when there is a proposition about it and a proposition is epistemologically significant only when it is about an object, reality just a 'posit'.

The first view is more interesting. It is against foundationalism but foundationalism accounted in a narraower sense\(^34\). It is not just proposition-relations that matters in foundatinalism. What matters, more importantly, is those supposed relations, themselves, whether those are mere proportions or beliefs or anything with epistemological significance. Quine's anti-foundationalistic stance can be highlighted here again in its wider perspective. The untenability of the ASD is not merely a charge against the bifurcationary status of propositions or statements themselves. It has the larger implication of going against any analogous bifurcation concerning beliefs, thoughts, imaginations, memory\(^35\) and, even, about

\(^{33}\) TT, p.2.


\(^{35}\) Cf. Sosa's discussin of 'clairvoyance' as an example of doxastic ascent. He proposes that 'comprehensive coherence' can promise "as a source of episteaic authority' against the "challenge of doxsstic ascent'. In other words, the reliable faculties like preception, memory, introspection and
the mechanisms of cognition itself. The IT is not only a skepticism about the meaning of sentences but also about the sense of beliefs, thoughts, imaginations, memory and, even, of the mechanisms of cognition. Similar is the case with his ontological relativity that the existence of anything real—objects, facts, events; mechanical, physical, biological, chemical and physiological processes etc.—are all relative, in fact, 'doubly relative'.

It is not only that Rorty's construal of Qune's 'epistemological behaviorism' is incoherent with QNE, his general procedure of justification by social legislation also seems to be foundationalistic. If traditional foundationalism confused 'causation with justification', Rorty confuses 'convention (social) with justification'. If traditional foundationalism embarks a 'potentially infinite regression of proposition-brought forward-in-defence-of-other proposition', then Rorty embarks potentially infinite regression of 'social approvals-brought forward-in-defence-of-other social approvals'. Thus his account, carried out any step ahead, may prove our confusion and foolishness inference has to be comprehensively cohered over and above the beliefs themselves. Otherwise, an ascent of any of the faculties, by any chance (e.g. clairvoyance), makes the epistemic authority helpless. Sosa, E. (1983) "Nature Unmirrored, Epistemology Naturalised", Synthese, 55, pp. 49–72 See. pp. 57-59 for the discussion on 'clairvoyance',

36 "That is outright foundationalism" argues Sosa, "even if what provides authority at the foundation is not the taxing of the given but the approval of society and even if what permits the erection of the superstructure is social justification" Op. Cit. p. 57.

37 In Sosa's words, "If traditional foundationalism were refuted by a charge of confusing causation (Mirroring Nature with justification, conventionalistic foundationalism would seen equally well refuted by a charge of confusing convention (direct social approval) with justification"— Op. Cit.
as much as a traditional foundationalism may do.

However Rorty cannot be blamed of advocating foundationalism because, even if the epistemological justification he advances is in terms of social legislation, his view on epistemology leads to be nihilistic rather than foundationalistic. For his account of social justification can be modestly construed as an account of repugnance towards traditional foundationalism without any rigid commitment to epistemological problems. Thus, unlike the QNE, Rorty does not maintain any positive reformistic step towards epistemological problems. On the other hand, he gives up the epistemological problems and advocates for "hermeneutic".

In fact, instead of observing the 'reciprocal containment' and 'scientific skepticism', Rorty observes the emptiness of epistemology as such and for that reason he observes the emptiness of philosophical skepticism too. He is not a naturalist in the sense Quine is. Nevertheless he is a naturalist in the sense that he is an anti-foundationalist. But, it can be noted here, he cannot be considered as a successful anti-foundationalist. It is only the foundationalistic theses which a successful anti-foundationalist qua naturalist refutes. His arguments presuppose foundationalism per se because he does not observe the 'reciprocal containment'. However instead of calling him as a foundationalist, it is better to call him as a naturalist who is an anti-foundationalist but, since he is not an

antifoundationalist in the capacity of a naturalist, an anti-Quinean
naturalist too. A Quinean naturalism is not separable from its
anti-foundationalism. Quine, unlike Rorty, goes against
foundationalism in the capacity of a naturalist. Rorty's attribution
of epistemological behaviourism to Quine and Rorty's
anti-foundationalistic stance may mislead one to mistake QNE for
nihilism. As it has already been discussed, QNE is
anti-foundationalistic but it is not nihilistic, it is reformistic.
Again; this reformation is over the epistemological methodology as
well as over the systematic way the epistemological problems are
traditionally put forward.

In the systematic way it is traditionally put forward is
normative in character. Goldman's historical reliabilism' is an
exemplar of how naturalistic epistemology is done' in confirmation to
a naturalistic epistemology's methodology but it is conjured by the
way traditional epistemology systematically put the questions of
epistemology. Reorientation from First Philosophy to philosophy as
science par excellence in a non-nihilistic perspective does not really
lead to a reliabilistic reformation which preserves the evaluative
color of epistemology in carrying out the epistemological
enterprise in a naturalistic programme.

39 In a 'Critical Notice' of Goldman's Epistemology and
Cognition, Audi(1989) aptly concludes that that book should
be read not only as a contribution to epistemology but as an
exemplar of how naturalistic epistemology is dare
"Critical Notices (Epistemology and Cognition. Alvin I.
Goldman)", Philosophy and phenoesenological Research pp.
733-737. See, p 737.
Goldman aims at a non-prescriptive, explanatory, theory of justified belief. Emphasis on "justified belief" signifies his enterprise's importance on ordinary accounts of justification instead of pondering over Cartesian "justification". A Cartesian sense of justification requires an 'ideal' account for any belief's test for "justification" and, thus, a prescription of different standards of justification far beyond the ordinary sense given to a belief's justifiedness. Goldman is not offering any such standard which can be counted as an alternative ideal standard, hence, his theory is non-prescriptive. He undertakes a genetic approach and attempts to provide executable justification of concrete beliefs. However this non-prescriptively approved search of an ideal standard is not meant to demolish the normative character of epistemological justification. It is just a reorientation from 'ideal' to 'executable' standard of justification.

A search of executable guidelines for epistemological justification naturally tends to have an alliance with cognitive researchers. For the scope and perspectives of execution is directly linked with the ability and capacity of a knower's cognitive mechanism. Findings about the ability and capacity of a cognitive mechanism does assist in delimiting the inquiry to an executable level but it leaves open to explore on 'justification on that level itself. For, above all, 'Justification is a term of appraisal'\(^43\). There can be

different manuals of justification on the executable level itself. It all depends upon the kind of conditions laid down for "justification" in view of the fact that alternative executable conditions can be possible on the basis of the same findings taken from the cognitive scientist.

Goldman wants to provide certain substantive (necessary and sufficient) conditions for justification although the executability of those conditions are confirmed by the findings of cognitive science. To what does these conditions amount is not that those are foundation to justification but the explanation of justifications or, rather, of justified beliefs. Since 'justified belief retains an epistemic value, it has to be explained in non-epistemic terms accounting the findings of cognitive science. The non-epistemic terms like 'believes that', 'is true', 'is probale', 'cause', etc; are to be balanced with the cognitive findings of belief-processing, memory and problem solving etc.

A non-prescriptive but evaluative account of knowledge and justification is obviously different from QNE.\(^{42}\) QNE is purely descriptive, it is non-prescriptive as well as non-evaluative or non-normative. Yet Goldman's account is naturalistic and it would be an utter misconception to throw it into a foundationalistic bogy simply because it preserves the evaluative role of epistemology. For.

\(^{41}\)Ibid., p. 92.
first of all, the evaluative role he proposes is admittedly non-prescriptive and; hence, it is against the prescriptive and evaluative traditional epistemological theories. It is against foundationalism. Secondly, the evaluation is neither metaphysically made a priori nor it is positivistically characterized as a criterion to tell how a system of justification is right, nor the rules of justification are derived from logic or statistics. On the other hand, justification in relation to these three levels\(^44\) - the level of framing a principle, or the level of framework principle, the level of criterion and the level of justifications-rule (J-rule) system -is empiricistic and pragmatic. The framework is quite against metaphysical principles, the criterion is a criterion of satisfaction\(^44\) and the rules must be derived from cognitive processes. Yet it differs from QNE as well as from the traditioal evaluative constraints in general and, thus, it differs from both on account of skepticism, ontology and semantics in particular.

In order to have a balanced perspective, Goldman extends more weight to knowledge and justification and less weight to skepticism—the significance of what is exaggerated by traditional epistemology\(^45\). Thus, similar to the preservation of the strong


\(^{44}\)Ibid. p.65.

\(^{45}\)Ibid., P.41.
evaluative constraint, philosophical skepticism of a Cartesian type is kept in the framework though with an insignificant support for its preservation. But, unlike the evaluative constraint's inevitable role in knowledge and justification, skepticism is not taken as an indispensable factor. On the contrary, skepticism is taken as 'only one concern of epistemology' and; knowledge and justification are viewed to be of having an 'independent interest, quite apart from the tenability of skepticism'.

So far as skepticism's 'significance should not be blown out of proportions', Goldman's epistemics joins with QNE to condemn a skeptic's 'over-reacting'. But, unlike Goldman's enterprise, QNE puts skepticism as an indispensable concern of epistemology. Of course, the skepticism indispensable is scientific skepticism and there is no sense of a skepticism beyond the scientific corpus. For, as it has

46 Ibid., pp.39-41.
48 Ibid.
49 Ibid.
50 In accordance with Quine's reflection on knowledge, a skeptic is "reasoning within the overall scientific system rather than somehow above or beyond it. The same applies to my statement", says Quine, "... that 'I am not accusing the skeptic of begging the question, he is quite within his rights in assuming science in order to refute science'. The sceptic repudiates science because it is vulnerable to illusion on its own showing; and my only criticism of the sceptic is that he is overreacting'. Quine, W.V.O. 1981 "Reply to Stroud" Midwest Studies in philosophy, vi, p. 475 Adapted from Gibson, R.F. (1989) "Stroud on Naturalised epistemology", Metaphilosophy, 23, pp. 1-11. See pp. 3-4.
already been discussed, there is a 'reciprocal containment' between epistemology and natural science such that one cannot have a 'cosmic exile', a step outside the scientific corpus to evaluate or doubt a knowledge-claim.

Thus the skeptics under consideration vary, the philosophical skeptic is with Goldman but without any significant role in the enterprise of knowledge and justification, the scientific skeptic with Quine is supposed to be as much significant as a natural scientist. Accordingly, characterization of the naturalistic epistemology varies: For the former it is evaluative but non-prescriptive such that the philosophical skeptic can at best be a silent observer since the evaluation is neither a priori nor an ideal one. A skeptic need not be called for any comment. For the latter it is non-evaluative and descriptive such that a scientific skeptic has to participate.

Thus the 'no role' of the skeptic in an evaluative but non-prescriptive account is not a contrast with the 'significant role of the scientific skeptic in a non-evaluative and descriptive account. Whether the skeptic wins or loses the game, in the former case, it does not matter to that account because if he wins then the epistemologist's task remains "to identify the comparatively reliable process, to discriminate the better from the worse and if he loses then the task is of "specifying the good procedures . For what the skeptic can importantly establish, if at all he can establish, is that

there is no guarantee of the availability of "sufficiently reliable processes to make knowledge and Justified belief possible"\textsuperscript{52}. Or; if he loses, what becomes the consequent of the fight with him is that such processes' availability is guaranteed. The scientific skeptic of the QNE comes into scene very much in either of these two tasks. Hence the two skeptics are quite different in nature and, there by, they need not enforce their respective accounts of epistesiology to contrast each other.

Such a difference mainly runs due to Goldman's partial acceptance of Quine's notion of 'reciprocal containment' as well as his 'partial agreement'\textsuperscript{53} with Quine's view that 'skeptical doubts are scientific doubts'. The partial agreement is resulted from Goldman's substantive naturalism and, obviously, not from any kind of foundationalism. This substantive naturalism can be best construed as a substantial explanation of how a methodology of QNE can be carried out further. That is, to say precisely, Goldman's enterprise is 'an exampler of QNE'. Skepticism, knowledge and justification are separable, for Goldman, on behalf of a balanced perspective. It presupposes that epistemology's concern with the processes or procedures of our belief-forming mechanism is the only relevant logic of knowledge and justification. In other words, it endorses to Quine's view that 'epistemology falls as a chapter of psychology except with its confusion that epistemology includes a non-scientific doubt although this inclusion is not inevitabe for knowledge and justification. That

\textsuperscript{52}Ibid., p.41.
\textsuperscript{53}Ibid., p.57.
is, in a sense, epistemology is no more exhausted as a theory of knowledge and justification than as a theory of knowledge and doubt.

In relation to doubt, we can understand three different senses of epistemology. QNE, which espouses a scientific doubt, is antagonistic to the traditionally overworked foundationalistic epistemology which finds a Cartesian doubt or a philosophical doubt very significant and attempts to root out that. Goldman's epistemics finds the least significance with philosophical doubt but, at the same time, it fails to espouse a scientific doubt whole heartedly. In relation to the notion of 'reciprocal containment' which is coextensive with a scientific doubt, 'reciprocal containment' (between epistemology and natural science) finds no place for a philosophical doubt because such a doubt demands that epistemology 'contains' natural science and natural science must not 'contain' epistemology. Goldman's epistemics is clearly an instance of how natural science contains epistemology. But it is different from QNE's notion of 'reciprocal containment which demands epistemology to contain natural science as much as it demands natural science to contain epistemology. Epistemics fails to uphold the former 'containment' largely due to its overlooking of the vital role a scientific doubt plays in epistemology. Abandoning a philosophical doubt, epistemics obtains the virtue of becoming an instance of naturalised epistemology but the vice it incurs is notably due to the carried over of a scientific doubt by a philosophical doubt. Consequently, if we consider Stroud's criticisms, it is true that epistemics is not nihilistic but it falls into the trap of Stroud's criticism by neglecting scientific skepticism. Epistemics seems to be a redefined epistemology. It seems to be indifferent to an
The foregoing discussions show the distinctiveness of QNE. It is observed that QNE is neither nihilistic nor a redefinition of epistemology. It is reformistic as well as scientific. And, more importantly, scientific skepticism and 'reciprocal containment' between epistemology and natural science play the vital role in advancing that reformistic scientific move. It may be reminded that these two features are invariably found to be potentially there in Quine's anti-foundationalism, in his refutation of ASD, determinacy of meaning and determinacy of reference.