We have seen that neither the causal theory nor the Defeasibility theory provides an adequate analysis of non-basic factual knowledge. Both of them attempt to supplement the justification condition of the traditional analysis with an additional condition but fail to explain clearly the concept of epistemic justification. They have not considered the problem whether our non-basic factual knowledge ultimately depends for its justification on some self-justified statements or whether it is justified in terms of its internal coherence with a certain kind of system of statements. Unless this problem is solved, the sceptical results cannot be avoided. Now two groups of contemporary philosophers suggest two opposite solutions to this problem. The advocates of the former position are called the Foundationalists and the advocates of the latter position are called the Non-foundationalists. Both are to be examined in order to find out whether any of them is capable of giving a clear idea of the concept of epistemic justification and thereby remove scepticism.
SECTION - I : FOUNDATIONALISM

The main difference between the foundationalists and the non-foundationalists is concerning the "regress problem." The justification condition of the traditional analysis of knowledge is the direct source of this problem. Inferential justification is the most obvious way in which beliefs are justified. In inferential justification, the conclusion is justified on the basis of its premises. But then the beliefs appealed to as premises must themselves be somehow justified, otherwise they cannot serve as premises of an inferential justification. It may be the case that the premises are also inferentially justified, but such justification requires further justification of the premises-beliefs which must also be justified in some way. This process will go on endlessly involving an infinite vicious regress of epistemic justification. So if all justifications are inferential in character, there is no way to escape this regress. If every inferential justification requires further justification which again needs still another justification and so on, then all our knowledge based on inferential justification will result in scepticism.

In order to solve the problem of the regress and at the same time to avoid the sceptical result, the Foundations-
lists suggest that the last member of the chain of justification must be non-inferentially justified. According to them, the non-inferentially justified beliefs or propositions are the ultimate basis, or the foundation of all inferentially justified beliefs. William P. Alston formulates foundationalism in the following manner:

"Our justified beliefs form a structure, in that some beliefs (the foundations) are justified by something other than their relation to other justified beliefs; beliefs that are justified by their relation to other beliefs all depend for their justification on the foundations."¹

Now the foundationalists differ among themselves in respect to the question whether the non-inferentially justified propositions must be absolutely certain, or incorrigible, or infallible or whether they need only be (non-inferentially) justified to some degree. So we have to discuss the foundationalist theory by dividing it into two types. The first type is named by different philosophers as strong foundationalism or radical foundationalism and the second type as modest foundationalism.

**STRONG FOUNDATIONALISM**

Strong foundationalism is the theory according to which the non-inferentially justified basic beliefs are
sufficient by themselves to form the 'foundation' of all our empirical knowledge.

The regress resulting from our inferential justification terminates as soon as we arrive at these basic beliefs. As our inferential justification is sufficiently guaranteed by such basic beliefs, these in turn can be used as acceptable premisses for further beliefs. However, the strong foundationalists differ among themselves in some important respects. In the first place, they differ in respect to the question whether basic beliefs are, or required to be infallible, indubitable and/or incorrigible, i.e., whether and how far they are liable to subsequent rejection like non-basic beliefs. In the second place, they differ on the issue whether basic beliefs are only subjective experiences or whether they may sometimes be experiences about ordinary physical objects. Thirdly, the most important respect in which their opinions vary is whether and how basic beliefs are themselves justified.

According to the traditional doctrine of foundations, basic beliefs are logically intuitive beliefs the justification of which does not depend on any other beliefs. But in recent times this line of argument has been supplemented and strengthened by a similar train of argument which attempts to avoid an infinite regress of arguments by introducing the notion of
ostensive statements whose meaning is not explained in terms of other statements already understood. These statements derive their necessity from the directly presented sense-data which needs no expression in language. This account of ostensive statements is parallel to the account of intuitive statements. Both notions are introduced in order to get rid of the infinite regress of arguments; in the first case applied to the idea that all statements are explained by definition in terms of others, in the second applied to the idea that all statements are justified by inference from others. The arguments for intuitive and ostensive statements are connected and are also similar in form. Both of them are the basis or foundation of all empirical or factual knowledge.

A basic statement, according to Quinton, 2 is both ostensive or intuitive, or, more precisely, a statement using an ostensive sentence in circumstances where its assertion is intuitive. To the term 'intuition,' Quinton attributes a wider sense than non-empirical direct knowledge, and uses the term also in the sense of empirical intuition. He holds that what is ostensive is a sentence and what is intuitive is a statement. A sentence is a combination of words which may have various meanings, while a statement is a sentence with a specific meaning referring to particular individuals, times and places. Therefore, a sentence may be open to questions as regards its
meaning, but a statement proves questions of its justification
and truth. Thus an intuitive statement is made in given
circumstances and is not just the statement as such. Although
all intuitive statements are made with ostensive sentences,
it is not the case that all ostensive sentences make intuitive
statements. Quinton says that basic statements are intuitively
justified and ostensively expressed. In his own words:

"Intuitive statements must be ostensively learnt, for
if they were explained in terms of other statements, the latter
could serve as premises in an inference to them. Ostensive
statements must be intuitively justifiable, for the occurrence
of a situation of the kind by correlation with which they were
introduced would be a sufficient reason of a non-inferential
sort of their assertion."³

It has been widely held that basic statements must
be certain or incorrigible and no non-basic statement is more
than probable. An argument in favour of this view has been
clearly presented by Lewis. He is the propounder of the
traditional view of strong foundationalism.

According to Lewis, empirical knowledge has empirical
foundations and these foundations are in the given data of
sense and memory. He divides empirical statements into three
classes: (1) the formulations of the directly given data of sense, (2) the terminating judgements and statements of them which represent some prediction of further possible experience and (3) the non-terminating judgements which assert objective reality.

The given element in experience is the absolutely essential factor in all empirical knowledge and in itself it needs no verbal formulation. But any discussion of it has to be in terms of what Lewis calls an expressive use of language which refers to appearances or directly given elements in experience. He uses such locutions as 'looks like', 'feels like', 'tastes like', etc. to express our formulations of the directly given experience. The expressive statements formulate the apprehensions of the given, but, according to Lewis, such apprehensions are not classed as knowledge in so far as they are not liable to any possible error.

The terminating judgements are generally of the form "If A then E", or "S being given, if A then E." Here A represents some mode of possible action, 'E' some expected consequent in experience, and 'S' the sensory cue. Here too both the antecedent and the consequent of the judgement are to be formulated in expressive language, but the statement in which terminating judgements are expressed are not named.
expressive statement, but predictive and verifiable statements. For, though they find their cue in what is given, what they state is something which can be verified by some test and can be predicted and involves a way of acting. The statements used to express the terminating judgements can be classed as knowledge, as they are subject to possible error.

The non-terminating judgements, however, are different from both the directly given sense-data and the terminating judgements. They extend from the simplest statement of a fact perceived, e.g., 'there is a piece of white paper before me' to the most sophisticated scientific generalizations, e.g., 'the universe is expanding'. The non-terminating judgements are so named because their significance is not exhausted by any limited set of particular predictions of empirical eventualities. The statement that something is blue or appearing to be square has, always, implications of further possible experience beyond what should have been found true at a particular moment. A search for the theoretically complete and absolute verification of any objective judgement would be an endless task. All actual verifications of them are bound to be partial and our assurance of them is always, theoretically, less than certain, i.e., merely probable.
Now the fact that the belief in objective truth is rendered probable by our experience leads us to think of the directly given data of sense as the absolutely certain grounds of such objective truths in order to avoid indefinite regress of the merely probable. Otherwise the regress will go round in a circle and the probability will not be a genuine probability. He writes:

"If anything is to be probable, then something must be certain. The data which support a genuine probability must themselves be certainties." \(^5\)

One merely probable statement may be supported by another, but "such confirmation is only provisional and hypothetical, and it must have reference eventually to confirmation by direct experience, which alone is capable of being decisive and providing any such foundation." \(^6\) Otherwise the chain of probabilifying evidence could never be completed. In this connection we can mention a distinction drawn by Price between hypothetical and categorical probability. \(^7\) An example of hypothetical probability is —'If he has caught the train he will probably be there by six'. The following statement illustrates categorical probability—'since he has caught the train, he will probably be thereby six'.
While in the first case the acceptance of the 'if' clause has not been presupposed, in the second case, the acceptance of the 'since' clause has been presupposed. Thus for any belief to be actually and categorically rendered probable or justified, some categorical statement of evidence must be accepted. But if this is itself probable, yet further accepted evidence must be available and so on infinitely. Hence it follows that statements of categorical probability must be ultimately warranted by direct presentations of sense.

Lewis's view is called "radical foundationalism", for he says that all credible empirical propositions ultimately derive some of their credibility from absolutely certain expressive judgements. He, however, accepts radical foundationalism independent of the kind of proposition which seems to be foundational to him. This is clearly stated in the following passage:

"Proximate grounds of the probable or credible need not be certain: it will be sufficient if these are themselves genuinely credible. If 'P' is credible on the ground 'Q', then the credibility of 'Q' assures a credibility of lesser degree than if 'Q' were certain. But if the credibility of 'P' rests on the credibility of 'Q', and that of 'Q' on that of 'R', and so on; and if in this regress we nowhere come to
Mark Pastin holds that the above passage also indicates that Lewis accepts the following 'Principle of Radical Foundationalism' (abbreviated as PRF).

"(PRF) : If some empirical propositions were not absolutely certain for a person at a time, then no empirical proposition could have any degree of credibility for the person at the time."

In a symposium on the foundations of empirical knowledge, Hans Reichenbach and Nelson Goodman attack Lewis’s claim that phenomenal reports provide an absolutely certain foundation for empirical knowledge. Goodman says:

"Credibility may be transmitted from one statement to another through deductive or probability connections; but credibility does not spring from these connections by spontaneous generation. Somewhere along the line some statements, whether atomic sense reports or the entire system or something in between, must have initial credibility...... To say that
some statements must be initially credible if any statement is even to be credible at all is not to say that any statement is immune from withdrawal.\textsuperscript{10}

In a later article, Lewis defends his theory against the objections of Reichenbach and Goodman. There he seems to accept some form of modest foundationalism rather than the radical foundationalism which was dogmatically asserted by him in his earlier writings.

Nicholas Rescher, who defends coherentism, raises the following objections to radical foundationalism.

"The quest for protocol statements as a foundation for empirical knowledge has always founded on inherent tension between the two incompatible objections of indubitable certainty on the one hand and objective factual claims on the other.\textsuperscript{12}

Reichenbach's theory\textsuperscript{13} is also a version of modern coherence theory and Lewis himself points out the following two advantages of his theory over the older ones.

"First, he makes provision for observation-statements, though he insists that these should be in objective ('physical')
language, and that they are both dubitable and corrigible. And second, he substitutes for the vague relation, historically called 'coherence', meticulously described relatives of probability - inference.\(^{14}\)

Reichenbach suggests that our search for certainty in case of probability statements is a 'retained trace of rationalism'. Lewis, on the contrary, suggests that 'it is the attempt to retain a trace of empiricism. Reichenbach requires that 'if enough probability can be got to lean against one another, our empirical judgements can all be made to stand up. But Lewis thinks that 'unless one of them can stand alone, they will fall flat.' He shows that modest foundationalism, as well as radical foundationalism, is an alternative to coherentism. This is clear from his writing:

"I see no hope for such a coherence theory which repudiates data of experience which are simply given - or no hope unless a postulate be added to the effect that some synthetic statements are probable a priori, the postulate, for example, that every perceptual belief has some probability just on account of being a perceptual belief."\(^{15}\)

Lewis's main point is that the ground of justification is needed in order to distinguish an empirical judgement
producing knowledge from a 'merely lucky or unlucky guess or hazard of belief' and for this the ground must be present and given. He does accept Goodman's pragmatic proposal, for the latter interprets empirical findings in terms of what is future to them. He thinks that it will involve confusion of the ground of knowledge which is there and given with what is not there but anticipated. He, however, rejects all current theories which fail to recognize the 'datum element of experience.' For if there is no ultimate ground of our empirical judgements, we cannot avoid the sceptical conclusions.

**OBJECTIONS TO STRONG FOUNDATIONALISM**

Anthony Quinton analyses five different senses of the word 'certain' and examines which of these senses can adequately explain the 'certainty' of basic statements. In the first sense, the word 'certain' means 'psychologically indubitable. In this sense, a statement is certain for a particular person at a particular time. Certainty is, therefore, nothing more than complete subjective assurance which is expressed in the statement 'I am certain that P'.

In the second sense, certainty is the same as 'logical necessity'. This sense of certainty stems from Plato when
he separated knowledge and belief with regard to their different objects. If logical necessity is identical with certainty, then what is logically necessary is indubitable. But Quinton points out that necessary truths can very well be doubted and ought to be doubted if they are neither intuitive nor proved. So logical necessity is not the same as certainty.

In the third sense, what is certain is 'self-authenticating'. The primal certainties 'I think' and 'I exist' which survive Descartes' methodic doubt have self-authentication as their characteristic feature. According to him, the truths which are same in the kind as 'I think' and 'I exist' are also quite indubitably true. But Descartes failed to correctly identify their kinds. Quinton says that although a few sense-statements have the property of self-authentication, most of them do not have this property.

In the fourth sense, basic statements are 'infallible' or 'incorrigible'. According to Quinton, an incorrigible statement is one which is wholly verified by the experience that prompts its assertion, whose claim coincides with the evidence on which it is based. It has no predictive consequence whose failure to offer might refute it. He distinguishes between two types of incorrigible statements: (1) incorrigible contingent statements and (2) incorrigible necessary statements.
Unlike incorrigible necessary statements, incorrigible contingent statements can be denied without self-contradiction although the denial of such statements would either be a deliberate untruth or the words in such statements are misused or misunderstood. Some philosophers have identified the notion of incorrigibility with the notion of self-intimation according to which the truth of a statement entails its being known. If a statement is incorrigible in this sense, it is not possible for us to say that 'I am in pain' when I do not believe that I am. For if 'I am in pain' is self-intimating, and its denial also, then I must know that I am in pain and believe that I am. But in fact, an incorrigible statement may be true although one does not believe it to be so.

Lehrer defines incorrigibility in terms of the concept of logical impossibility which is formally expressed in the following way:

"S has an incorrigible belief p if and only if it is logically impossible that S believes that p and p is false."  

Now if it is logically impossible that "S believes p and p is false", then, given that S believes that p, it follows that p is true. In this sense, incorrigible beliefs guarantee their own truth.
Lehrer shows that the application of the notion of incorrigibility to logically necessary statements involves counter-examples. The justification for believing some necessary truths in arithmetic, mathematics, and logic is not a simple consequence of the necessity of what is believed. A man may believe something to be a necessary truth without in any way knowing that his belief is true or even being justified in his belief. This argument proves that logical impossibility of being mistaken does not suffice for justification when what is believed is an arithmetical, mathematical, or logical truth.

Lehrer then tries to define incorrigibility by restricting its application to contingent statements, for contingent statements are neither logically impossible nor logically necessary. The definition is as follows:

"S has an incorrigible belief that p if and only if (i) it is contingent that p and (ii) it is logically impossible that S believes that p and it is false that p."  

If a person's belief is incorrigible in this sense, the incorrigibility of his belief will not be a consequence of the logical necessity of what he believes; here the existence of the incorrigible belief guarantees the truth of
what is believed but the truth of the belief is not guaranteed by logic alone, Kenneth Konyndyk points out that even this definition of incorrigibility has to face a problem. ".....if we suppose that there is some contingent statement which a man incorrigibly believes to be true, and if we suppose that every incorrigible belief is self-justified, then we arrive at the conclusion that if that man believes the conjunction of the contingent statement in question and any logical truth, no matter how foolish his reasons for believing the logical truth, then his belief in that conjunction is also incorrigible and self-justified. Consequently, we should have to say that he knew the conjunction to be true even though his reasons for believing one conjunct, the logical truth, failed to justify his believing it." It follows that the notion of incorrigibility as defined above is not sufficient justification of conjunctions or other logically complex statements. Lehrer suggests that we can avoid this problem if we restrict the definition of incorrigibility to statements that are both contingent and non-complex, that is atomic.

The notion of atomicity can be clearly applied to formal languages. But when this notion is applied to natural languages, it becomes obscure. So the definition of incorrigibility in terms of the notion of atomicity is not possible.
Nevertheless, Lehrer says that although incorrigibility is not a sufficient condition for self-justification, it may possibly be a necessary condition for self-justification. He writes: ".........even though not all incorrigible beliefs are self-justified, it remains possible that all self-justified beliefs are incorrigible."²⁰

Lehrer presents some alleged examples of incorrigible beliefs by which he proves that a man can make all kinds of mistakes about his present mental states including his thought or belief about some statements and also about his sensation or feeling. Therefore, they are corrigible and subject to correction.

Moore, Wittgenstein, Austin and Malcolm hold that when we use the word 'certain' in ordinary speech, we do not mean incorrigible, we mean 'beyond reasonable doubt.' This is the fifth and the last sense of 'certainty' according to Quinton. In this sense, there is a normative element in the word 'certain', for it asserts that "the statements it is applied to do not need any further justification, that it is right to act on them with complete confidence, that it would be irrational to doubt them."
F. L. Will objects to the view that basic beliefs are independent and incorrigible in the sense that they are not subject to subsequent rejection or revision. He says that one's sensation is liable to both error and revision.

In his words:

"....if knowing any truth about a sensation, if indeed having a sensation of the kind that is specified in that truth, involves resource extending far beyond any individual and what can be conceived to be private to him, then the possibility that this equipment and resource is not in place and working soundly cannot be discounted in the philosophical understanding of the knowledge of such truth. If the sound discrimination of the sensation of X, in its character as X, can be made only by correctly utilizing something further, say, Y, and if, in a case like this, discrimination of a sensation as X can be made while yet, for some reason, Y is not being used correctly, then a discrimination of X need not be a sound discrimination." (P. 203)

Will, however, shows that although error is an important way in which one fails to know, there are other
ways as well. He argues:

".........there are a variety of ways in which a discrimination can go wrong without being mistaken, without yielding anything sufficiently close to a good performance to be rightly called an error. There are also a variety of ways in which a discrimination can exhibit its corrigibility other than by going wrong, by yielding somehow an unsuccessful individual performance. ..........Like every other mode of response, modes of sensory discrimination exhibit their liability to change, improvement, deterioration and obsolescence in the dependence they exhibit at all points upon individual and social needs and the conditions under which these needs are filled." (P. 207)

Thus it follows that our supposed basic beliefs, like the non-basic ones, are equally corrigible, i.e., subject to subsequent rejection or revision.
For Lewis, however, certainty and incorrigibility are identical. He says,

"When I perceive a door, I may be deceived by a cleverly painted pattern on the wall, but the presentation which greets my eye is an indubitable fact of my experience.... The given element is this incorrigible presentational element; the criticizable and dubitable element is the element of interpretation".22

But Quinton shows that Lewis's argument cannot establish that there must be incorrigible statements. As all probable statements rest on others, he concludes that basic statements cannot be merely probable. But this does not imply that they are incorrigible, only that they are 'beyond reasonable doubt.' So basic statements, according to Quinton, are certain not in the sense that they are incorrigible (as Lewis requires) but in the sense that they are beyond reasonable doubt. He says:

"That basic statements must have experiential grounds must always be sufficient to certify them, to justify them completely; it is enough if they are partially justified or rendered probable by experience. Even less does it entail that these experiential grounds are the only things that could
bear on their justification at all and thus that they are incorrigible." 23

MODEST FOUNDATIONALISM

The objections raised by Quinton, Lehrer and Will discussed above are all against the most vulnerable form of foundationalism which is called radical or strong foundationalism. Their arguments prove that the idea of a relevant class of contingent incorrigible propositions is absurd. Nevertheless, most contemporary foundationalists appear to be modest foundationalists. Among them, we can name Chisholm, Danto and Quinton. The scope of my work does not permit me to discuss each of these philosophers. So I will here discuss only the theory of Chisholm. He gives an account of self-presentation in accordance with which basic propositions are noninferentially evident, but the notion of being evident is not as strong as the notion of incorrigibility.

Chisholm's theory has several versions. 24 His main point is that human knowledge has a foundational structure which consists of propositions about a knower's own perceptual state. These together with certain epistemic principles provide the basis of our knowledge of contingent matters of fact. Our senses, memory and intuitive understanding, though
Chisholm's theory is based on the notion of 'epistemic preferability'. He thinks that the theory of evidence is a branch of the theory of preference, or more accurately, of the theory of right preferability. He sets forth the following seven principles as axioms of epistemic preferability.

"(1) Epistemic preferability, like other types of preferability, is such that, for any states of affairs p and q, if p is preferable to q for S at t, then it is not the case that q is preferable to p for S at t.

(2) Again like other types of preferability, epistemic preferability is such that, for any states of affairs, p, q, and r, if it is not the case that p is preferable to q, and if it is not the case that q is preferable to r, then it is not the case that p is preferable to r.

(3) For any propositions h and i, believing h is epistemically preferable to believing i for S at t, if and only if, believing not-i is epistemically preferable to believing not-h for S at t.

(4) For any proposition h, if withholding h (that is
neither believing h nor believing not-h) is not epistemically preferable to believing h, then believing h is epistemically preferable to believing not-h... ...

(5) For any propositions h and i, withholding h is the same in epistemic value as withholding i for S at t, if and only if, either believing h is the same in epistemic value as believing i for S at t or believing not-h is the same in epistemic value as believing i for S at t. (To say that one state of affairs is "the same in epistemic value " as another is to say that neither one is epistemically preferable to the other.)

(6) For any propositions h and i, if believing i is epistemically preferable to believing h for S at t and also epistemically preferable to believing not-h for S at t.

And finally (7) withholding a proposition is the same thing as withholding its negation".25

Chisholm defines some essential concepts of empirical evidence in terms of the notion of epistemic preferability.

"(D₁) h is beyond reasonable doubt for S = Df.
Accepting h is epistemically preferable for S to withholding h.
(D₂) h has some presumption in its favour for S = Df. Accepting h is epistemically preferable for S to accepting not-h.

(D₃) h is counterbalanced for S = Df. Accepting h is not epistemically preferable for S to accepting not-h, and accepting not-h is not epistemically preferable for S to accepting h.

(D₄) h is acceptable for S = Df. Withholding h is not epistemically preferable for S to accepting h.

(D₅) h is certain for S = Df. h is beyond reasonable doubt for S, and there is no i such that accepting i is more reasonable for S than accepting h.

(D₆) h is evident for S = Df. h is beyond reasonable doubt for S; and for every i, if accepting i is more reasonable for S than accepting h, then i is certain for S."²⁶

Chisholm characterises those propositions which he calls basic or directly evident to a man's knowledge at a given time in terms of the epistemic concepts listed above. He divides basic propositions into two types: (1) those which are "self-presenting" and (2) those which are "a priori" and provides separate definitions for each of them.
The concept of "self-presenting" is defined in the following way:

"(D₇) h is self-presenting for S at t = Df. (i) h is true at t and (ii) necessarily if h is true at t then h is evident for S at t." ²⁷

The temporal reference is made explicit in the definition, for Chisholm wants to show that a self-presenting proposition is such that, whenever it is true, it is evident. The "whenever" is made explicit in terms of the temporal reference.

In his definition of the somewhat broader concept of 'a priori', he uses the concept of "axiomatic" proposition for a person at a given time,

"(D₈) h is axiomatic for S = Df. (i) S accepts h, (ii) necessarily h is true, and (iii) necessarily if S accepts h then h is evident for S." ²⁸

The following is the definition of 'a priori'.

"(D₉) h is a priori for S = Df. There is an e such that (i) e is axiomatic for S and (ii) the proposition that e entails h is also axiomatic for S." ²⁹
Finally, Chisholm defines a basic (or directly evident) proposition in the following manner:

\[(D_{10})\] h is basic for S = Df. Either h is self-presenting for S or h is a priori for S."^{30}

The epistemic concepts defined above belong to the epistemic status a single proposition may have for a given subject at a given time. There is also a family of epistemic concepts belonging to the relations that may hold between two propositions when one of the propositions may be said to confer some epistemic status upon another. He explains two such concepts, for example, the concept of "making evident" and the concept of "confirmation". The various relations explained by these concepts are called by Chisholm "justifying relations", for they exemplify different ways in which one proposition may be said to justify another.

The following definition explains what is for one proposition to serve as a basis for another.

\["(D_{11})\] e is a basis of h for S = Df. e is self-presenting for S; and necessarily, if e is self-presenting for S, then h is evident for S."^{31}
The definition of the concept of "making evident" is stated below:

(D12) e makes h evident for S = Df. e is evident for S; and every h such that h is a basis of e for S is a basis on h for S."

An evident proposition may make evident some of the propositions it entails but it need not make evident every proposition it entails. So e's entailing h is neither a sufficient nor a necessary condition of e's making evident a proposition h for S. If e makes h evident for S and also entails h, then e demonstratively, or deductively makes h evident for S. But if e makes h evident for S and does not entail h, then e inductively makes h evident for S.

Chisholm defines the confirmation relation (here it is considered as an absolute relation - a relation that holds eternally between propositions and involves no reference to a particular subject) in the following way :-

"(D13) e tends to confirm h = Df. Necessarily, for every S, if e is evident for S and if everything evident
for $S$ is entailed by $e$, then $h$ has some presumption in its favour for $S$.\textsuperscript{33}

According to Chisholm, "$e$ tends to confirm $h$" can also be expressed by saying: "If $e$ were the only thing you knew, or the only relevant evidence you had, then you would also have some reason for accepting $h$." This relation can also be expressed, more simply, as "$e$ confirms $h$.

Having defined the epistemic concepts, Chisholm proposes a solution of the Gettier problem against the traditional definition of knowledge. Gettier has shown that the traditional definition is inadequate to the following situation. (i) There is a set of propositions $e$ such that $e$ inductively confers evidence for $S$ upon a certain false proposition $f$; (ii) $S$ accepts the false but evident $f$; (iii) $f$ confers evidence for $S$ upon a true proposition $h$; and (iv) $S$ accepts $h$. In this situation, the traditional definition requires us to say that $S$ knows that $h$ is true. But Gettier shows that in such a situation, $S$ may not know that $h$ is true.

Chisholm says that we can construct $h$-evidencers ad infinitum, but some of them would seem to be parasitical upon others. To avoid this infinite regress, we require a
non-parasitical h-evidencer which does not derive its epistemic force from any of S's other h-evidencers. Such non-parasitical h-evidencers are to be found among those basic propositions which make h evident for S. This is expressed by the following condition:

"(D_{14}) h is nondefectively evident for S = Df. Either h is certain for S, or h is evident for S and is entailed by a conjunction of propositions, each having for S a basis which is not a basis of any false proposition for S."^{35}

With this explication of the concept of nondefective evidence, Chisholm defines knowledge in the following way:

"(D_{15}) h is known by S = Df. h is accepted by S; h is true; and h is nondefectively evident for S."^{36}

In 'The Foundations of Knowledge', Chisholm lists six epistemic principles he has formulated for a later version of foundationalism.

"P_1 If the property of being F is self-presenting, then for every x, if x has the property of being F and if x considers his having that property, then it is certain for x that h_1 is then F."
For every $x$, if (i) $x$ directly attributes to himself the property of being $F$, and if (ii) $x$ being $F$ is not explicitly contradicted by the set of properties that $x$ directly attributes to $x$, then his being $F$ has some presumption in its favour for $x$.

For every $x$, and for every property $H$, the direct attribution of $H$ is acceptable for $S$ if and only if it is not disconfirmed by the set of all those properties having some presumption in their favour for $S$.

For every $x$, if there is a way of appearing such that (i) it is self-presenting and (ii) $x$ has appeared to in that way, then the following is evident for $x$ provided it is epistemically in the clear for him and something that he considers: there is something that is appearing that way to him.

For every $x$, if (i) $x$ perceptually takes there to be something that is $F$, and if (ii) his perceiving an $F$ is epistemically in the clear for $x$, then it is beyond reasonable doubt for $x$ that he perceives something that is $F$. If, moreover, his perceiving something that is $F$ is a member of a set of properties, which mutually support each other and each of
which is beyond reasonable doubt for x, then it is evident for x that he perceives something that is F.

P_6 For every x and y, if (i) x perceptually takes to be F, and if (ii) it is epistemically in the clear for x that he perceives something that is F, then y is such that it is beyond reasonable doubt for x that he perceives something that if F, then y is such that it is evident for x that it is F."^37

It is now clear that the self-presenting properties constitute their own justification. That one has a self-presenting property becomes evident from the fact that one has it and also considers one's having it. Self-presenting properties may make evident certain attributions that are not directly evident. Principles P_4 and P_5 present conditions in which the antecedent refers to something which is self-presenting and the consequent refers to what is not directly evident. Chisholm says that epistemic justification has two elements — one that is foundational and the other that is non-foundational. Principles P_2 and P_3 constitute the non-foundational element.

According to principle P_2, "if an attribution is uncontradicted by the set of the subject's other attributions, then that attribution has some presumption in its favour."
Principle $P_3$ requires that 'if an attribution is not disconfirmed by the set of all those attributions having some presumption in their favour, then the attribution is epistemically acceptable'. Such attributions cannot be justified in terms of merely what is self-presenting.

Principles $P_4$ and $P_5$ also refer to what is called "the epistemically unsuspect" (what which is "epistemically in the clear") which are subject to similar considerations. All of them require some reflection for the justification of their attribution. Principle $P_6$, which is a de re principle, cannot be ascertained by reflection. Here the requisite sense of "perceives" involves a causal relation between the object of perception and the perceiver. Chisholm calls it "quasi-epistemic principle."

Chisholm says that the controversy between the foundationalists and the non-foundationalists is a result of misunderstanding the notion of "justification". The word "justify" is taken by the foundationalists in the epistemic sense which is explained by the concepts of epistemic preferability. The non-foundationalists, on the other hand, use "justify" in one or another of several nonepistemic senses. Some of these senses presuppose some further sense of while some others do not, so if "justify" "justify" is considered in one of its non-epistemic senses, foundationalism may be proved to be false. But from this it
does not follow that it is false if "justify" is taken in its epistemic sense. He also shows that the chief rivals of foundationalism, such as a Coherence theory of empirical justification, tacitly presuppose foundationalism.

Chisholm's foundationalism rests on three main considerations. First, he is sure that a considerable amount of empirical knowledge is not self-evident; second, that all empirical knowledge which are not self-justifying necessarily require a foundation of self-justifying beliefs; and thirdly, that such foundation consists in the self-presenting states of mind. His theory is based on a further premise which he calls 'commonsensism' as opposed to empiricism and scepticism.

"...it is characteristic of "commonsensism" to assume that we do know most, if not all, of those things that ordinary people think that they know." 38

This theory intends to show how many of our commonsense beliefs can be inferred from and justified by our self-justifying beliefs. In this respect, his theory is similar to the views of G. E. Moore and Thomas Reid. According to Moore, our assertion about our knowledge of "external facts" cannot be proved by any reason. But in fact, we are 'as certain of this as of anything: and as reasonably certain of it.'
Thomas Reid thinks that if the empiricist criteria do not allow our knowledge of the "external facts", then it is false. Chisholm says:

"Unlike the empiricist, we have not begun with general criteria of knowing. Rather we have attempted to derive criteria of knowing, accommodating those criteria to our prior assumptions about what it is that we do know. And we have rejected scepticism, for we have assumed that our knowledge goes beyond what is directly evident or a priori."  

(Theory of Knowledge, 2nd edition, p. 121.)

Chisholm requires some special rules of evidence in order to derive commonsense beliefs from foundational beliefs. However, unlike most of the foundationalists, he does not hold that such rules are self-evidently acceptable but that these rules are acceptable because they 'accommodate our basic commonsense beliefs.' By this he means that we can derive commonsense beliefs from foundational beliefs with the help of these rules and that these rules do not allow us to derive intuitively false beliefs from intuitively true ones, that is, they resist counter-examples.

Bruce Aune criticises Chisholm's foundationalism by saying that the special rules of evidence prescribed by Chisholm create difficulties. As a foundationalist, Chisholm holds that to be rationally justified, an empirical belief
must be justified by the foundational beliefs. Aune points out that "a rationally acceptable justification must employ both rationally acceptable premises and rationally acceptable form (or rule) of inference". He says that even if we grant that Chisholm's rules are rationally acceptable for the reasons he gives, then, although this theory is saved from a circular argument (justifying commonsense beliefs by the rules which are, again, justified by the commonsense beliefs), it will be rationally credible or acceptable without being inferable, by rationally acceptable rules, from foundational beliefs. Whatever may be the case, Chisholm's foundationalism cannot be accepted. For "either it takes us in a high-level circle or it tacitly denies the foundationalist contention that an empirical belief, if it is not self-justifying, is rationally justifiable because, and only because, it is inferable from foundational beliefs."

Moreover, Aune claims that this is a common defect of most foundationalists, for although they hold that our empirical beliefs ultimately rest on some self-justifying beliefs, they do not insist that the rules by which non-basic beliefs are inferable from basic beliefs are equally self-justifying, the reason being that no nondemonstrative inference seems to be self-justifying. But if no nondemonstrative inference is self-justifying, then they are no more
rationally indubitable than the ordinary empirical beliefs themselves.

In 'knowledge, Mind, And Nature', Aune brings out two crucial limitations of foundational thesis. First, "the legitimacy of certain kinds of knowledge — whether it concerns the external world, the mental states of others, or such theoretical entities as photons — will inevitably be ruled out or at least attenuated by some reductive form of interpretation". (P.265) The foundation theory does not increase but rather excessively restricts the possible objects of knowledge.

Second, the basic concepts (whether it involves immediate experience, observable beliefs or commonsense bodies) applicable to the foundation are always logically immune to rational revision. Aune says:

This attitude is essentially obscurantist, because it prevents theoretical advances from ever changing our conception of what we are observing, sensing, or doing when we think". (Pp. 265 - 266)

Lehrer observes that foundationalism, even in its modest form, is not acceptable. He has already shown that if
basic beliefs are logically incorrigible, then there would be almost no basic beliefs at all. Moreover, complete justification and guarantee of truth cannot be provided by the meaning of words expressing those beliefs. But if we abandon the logically incorrigible or semantic guarantee of truth, the claim that any corrigeble belief guarantees its own truth faces a difficult question. If our basic beliefs are subject to error, they cannot guarantee their own truth and consequently cannot provide a foundation for our empirical beliefs. To save this theory, one may say that it is a basic belief that certain beliefs are completely justified and guarantee their own truth. This requirement, although logically consistent, allows the scope for an endless speculation, Lehrer says:

"Anyone wishing to argue that he knows anything whatever can then claim that what he knows is a basic belief. When asked to defend this claim, he can again retort that it is a basic belief that this belief is basic and so on."

(knowledge, p. 152)

Lehrer shows that if we accept foundationalism, there are only two alternatives open to us, but none is acceptable. "........if we try to find some guarantee of truth for basic beliefs outside of the basic beliefs themselves, we fall into the coal-pit of scepticism. If on the other hand, we allow basic beliefs themselves to be the source of the guarantee of truth
basic beliefs are to have, we open the way to the ravishment of unrestricted speculation. Either way, we count epistemic disaster."

The above discussion makes it apparent that foundationalism, in neither of its forms, is acceptable. Basic beliefs on which empirical facts rest cannot be logically incorrigible, for then non-basic factual beliefs can be logically deduced from them. Contingent incorrigible beliefs are very few in number. Nor is it possible to save this theory by allowing that basic beliefs are justified by an additional information that 'it is a basic belief that certain beliefs are completely justified and guarantee their own truth', for then we have to allow endless speculation. Again, if basic beliefs inductively justify non-basic ones, then the latter will be merely probable. This consequence leads to scepticism. We can avoid this sceptical result by arguing that, as in the case of basic belief, that it is a basic belief that certain non-basic beliefs are completely justified by basic beliefs which guarantee their truth. But then again we have to open the door for never-ending speculation. So we have to conclude that foundationalism cannot provide an adequate account of self-justified beliefs on which non-basic beliefs are supposed to rest finally.
SECTION II: THE NON-FOUNDATIONAL THEORY

In contemporary epistemology, there is a shift from the foundational theories of justification to the coherence theories. The negative contention of this theory is that all epistemic justification of contingent statements is inferential in character and so there are no basic beliefs and no foundations for knowledge. But as the regress of justification cannot go forever, they also offer a positive thesis which claims that the primary unit of epistemic justification is a closed system which is justified in terms of its internal coherence. This is clearly stated by Nicholas Rescher in the following passage. 41

"The coherentist criterion thus assumes an entirely inward orientation: it does not seek to compare the truth candidates directly with "the facts" obtaining outside the epistemic context; rather, having gathered in as much information (and this will include also misinformation) about the facts as possible, it seeks to shift the true from the false within this body... On this approach, the validation of an item of knowledge -- the rationalization of its inclusion alongside others within "the body of our knowledge" -- proceeds by way of exhibiting its relationships with the rest. They must all be linked together in a
connected, mutually supportive way (rather than having the form of an inferential structure built up upon a footing of rock-bottom axioms). We operate, in effect, with the equation: "justified" = "systematized."

Thus the coherentists try to establish the same point that knowledge is 'justified-true-belief' whose justification is made in terms of an appropriate systematization. This view is radically different from "the foundationalists' quest for an ultimate basis for knowledge as a quasi-axiomatic structure". The coherence theory claims that the required justification is derived not from "basic (or axiomatic) knowledge", but rather "appropriately interconnected with the rest of what is known." The traditional coherence theory was propounded by the absolute idealists. Of them, we can name F. H. Bradley, according to whom, the coherence approach represents "the system-analysis approach to the criteriology of truth." Nevertheless, the absolute idealists confused the coherence theory of epistemic justification with a coherence account of truth. A similar view was presented by some logical positivists, especially by Neurath and Hempel. Among the present-day philosophers, Quine, Sellars and others offer such a theory. The views of Lehrer, Hall, Aune, Harman and Rescher are also versions of coherence theory. Here we will follow Lehrer's analysis of coherence.
According to Lehrer, 'justification is a reciprocal relation of Coherence among beliefs belonging to a system.' He outlines a coherence theory of justification in the following manner:

"S is completely justified in believing that p if and only if the belief that p coheres with other beliefs belonging to a system of beliefs of kind k."$^{42}$

He thinks that in order to explicate a Coherence theory of justification, an account of the relation of Coherence and of the kind of system with which a belief must cohere is essential. First of all, he examines whether Coherence can be explained as a logical relation of necessary connection as prescribed by the traditional idealist philosophers. For them, 'a belief that p coheres with other beliefs of a system k if and only if p either necessarily implies or is necessarily implied by every other belief in K'. But Lehrer points out that every logically contingent statement in one system is negated in the other. So if complete justification needs logical Coherence, then when a man is completely justified in believing any contingent statement, he is also completely justified in believing the denial of that statement. Furthermore, logical coherence is not necessary for complete justification. If two observation statements describe observations of different and unrelated
objects, neither of them necessarily implies the other even though we are completely justified in believing both of them. Thus it seems that Coherence cannot be explained in terms of entailment relation.

EXPLANATORY COHERENCE

For an adequate Coherence theory, we must specify a requisite system providing complete justification for those beliefs that cohere with the system. Lehrer's analysis of Coherence has two parts: (1) a criticism of the explanatory Coherence theory and (2) a development of the subjective Coherence theory. First of all, he considers whether explanatory Coherence can supply such a system. The defenders of the explanatory Coherence claim that the traditional problem of the justification of perceptual claims on the basis of sense-data can be solved by the explanatory Coherence theory. Our claims about the mental states of others can also be considered in terms of explanatory coherence. An appeal to explanatory coherence is also made in cases of statements about 'distant times and places' and 'statements about theoretical states and objects'. Our 'hypotheses about the past', 'the physically remote' and 'the theoretically observable' are also completely justified by this theory.

The question is, what justifies those beliefs that provide explanation for these things. A justifiable belief
should itself be explained somehow and also offer explanation of certain other things. For example, perceptual statements both explain sense experience and are explained by theories of perception. It may be said that in order to be coherent with a system of beliefs, a belief must be consistent with the system and provide a better explanation than other beliefs which contradicts it. The following is a schema offered by Lehrer which satisfies these two requirements:

"S is completely justified in believing that p if and only if the belief of S that p is consistent with that system C of beliefs having a maximum of explanatory coherence among those systems of beliefs understood by S, and the belief that p either explains something relative to C which is not explained better by anything with which contradicts p or the belief that p is explained by something relative to C and nothing which contradicts it is explained better relative to C."^43

Lehrer then considers the concept of a system having maximum explanatory coherence. This concept includes the concept of 'greater explanatory coherence'. He says:
A system $C_1$ has greater explanatory coherence than $C_2$ if and only if $C_1$ is logically consistent and $C_2$ is not, or both are consistent but more is explained in $C_1$ than $C_2$ or both explain the same things but some things are explained better in $C_1$ than $C_2$.

The following is the analysis of maximal explanatory coherence offered by Lehrer.

"A system $C$ has a maximum of explanatory coherence among those systems of beliefs understood by $S$ if and only if there is no system having greater explanatory coherence among those systems."

Sylvin Bromberger offers an epistemic analysis of explanation. According to this analysis, there is an interrelation between the concept of explanation and epistemic notions, and so at least an indirect reference to some epistemic notion is essential for an analysis of the concept of explanation being better than another. For instance, one explanation is considered better than another only if the former is more likely to be true from what we know than the latter. But Lehrer objects that if we accept this view, then knowledge would be analysed by explanatory coherence that would be analysed in terms of explanation and this in turn would be analysed in terms of knowledge.
Besides, if Bromberger's view is supposed to be correct or almost correct, the reasonable conclusion seems to be that if knowledge is analysed in terms of the concept of explanation, the latter concept should be taken as primitive in our analysis. So Bromberger's analysis of explanation is circular.

Hempel claims that the above difficulty can be removed if the concept of explanation is presented as an 'objective logical relation' between the law and what is subsumed under it.' But Lehrer holds that the subsumption relation may fail to be explanatory. Moreover, if the objective logical relation between statements is a deduction, 'it may fail to explicate why the premises of the deduction explains the conclusion. Sometimes the deduction is non-explanatory and even when deduction is explanatory, it is not the deductive relation that is explanatory but something else. Explanatory and non-explanatory deductions can be distinguished only by an appeal to epistemic considerations, to what we do and do not know. But we have seen that this analysis is circular.

Thus we see that none of the above theories give a satisfactory analysis of the concept of explanation. Explanatory coherence theory faces a number of objections which prove the inadequacy of this view.

First, in an explanation, there are statements which do the explaining and those which describe what is
to be explained. The explanatory coherence of a system can be increased in two ways — by adding statements that explain or by substracting statements to be explained. Lehrer imposes limitation to this method. He says:

"The method of increasing the explanatory coherence of a system by decreasing what is to be explained must be limited. Otherwise we may obtain a maximum of coherence at the expense of a minimum of content."\(^{48}\)

To get rid of this absurd situation, philosophers lay further limitations on 'what observation statements may belong to a justificatory system'.

Quine and Sellars propose a theory according to which whether we are completely justified in believing some observation statement to be true is determined not only by its explanatory coherence with other statements but also by certain patterns of conditioned response to sensory stimulus in terms of which the statement is linked to sensory experience.\(^{49}\) These patterns put limitations on the way in which we may eliminate observation statements from the system and thus escape from the labour of explanation. Lehrer criticises a hypothetical extension of the views of Quine and Sellars, for the stimulus-response
theory of the justification of observation statements is not explicitly stated by them. He examines the view that certain patterns of conditioned response associated with a sentence is at least partly responsible for a man's complete justification in believing some observation statement. Now a response in stimulus theory is generally made in terms of action and not belief. But Lehrer extends the notion of response to the notion of the acquisition of beliefs. But this theory becomes defective if a man is conditioned to respond with erroneous beliefs. Although a man's being conditioned to believe and his complete justification in believing may happen to go together, these two are separate from each other. A man may be completely justified in believing an observation statement whenever he is in a special kind of brain state. But it is not the conditioning or the brain state that makes the beliefs completely justified. So the attempt to supplement the explanatory coherence theory by adding the theory of conditioned response is faulty.

Lehrer offers similar reasons to prove that observation statements cannot be properly analysed by an appeal to the theory of natural selection. He writes:

"Beliefs that are neither true nor completely justified may have considerable survival value. Perhaps the
truth would destroy us."

Having found the inadequacy of the above proposals regarding the complete justification of our observation statements, Lehrer considers another suggestion according to which observation statements are self-explanatory and therefore if such statements are included within the explanatory system, they are coherent with each other and thus provide complete justification for our beliefs. It does not offer some non-explanatory analysis for the justification of perceptual beliefs, but provides the possibility of self-justifying beliefs within the context of an explanatory coherence theory. Such self-justification need not constitute a guarantee of truth as required by the foundation theory. The perceptual beliefs are self-justified since the truth of the belief explains the existence of the belief. The self-justification of these beliefs is derived from the explanatory coherence of such beliefs within a system and, consequently, may be refuted by other beliefs in that system. Self-justified perceptual beliefs form the base of explanatory coherence theory.

But Lehrer points out that this view also is not above criticism. He advances two objections against it.
In the first place, the general principle involved in self-explanation is not really a principle of explanation, but a mere tautology.

Secondly, there is no explanatory law, exceptive or otherwise, which provides an explanatory link, for example, between what a man believes he sees and his seeing that object. Hence, although perceptual beliefs may be useful for purposes of systematic explanation, the complete justification of such beliefs does not depend on the explanatory law of such beliefs.

"The way in which perceptual beliefs cohere with a system of beliefs may render them completely justified even though the coherence is not explanatory. This would mean that coherence may be explicated in some novel manner."

The above objections prove that the defects of an explanatory coherence cannot be remedied by offering self-explanatory beliefs as a basis of explanatory coherence.

Next, Lehrer shows that explanatory coherence is not necessary for complete justification. There may be completely justified beliefs whose justification depends not on explanatory relations to other beliefs, but on their being coherent
with the other beliefs within a system of beliefs.

The final objection raised by Lehrer against the explanatory coherence theory is that it makes inconsistent statements completely justified. In his words:

"Two systems of beliefs may each have a maximum of explanatory coherence and yet be inconsistent with each other........ Consequently, a belief may cohere with one system of beliefs having a maximum of explanatory coherence while the contradictory of that belief coheres with another system of beliefs having a maximum of explanatory coherence. In the current account both beliefs would be completely justified."\(^52\)

It seems that in order to provide complete justification, the coherence theory needs some additional ingredient of justification besides the relations between statements. According to Sellars, Quine and Harman, such additional ingredient may be supplied by the simplicity of the over-all system. But Lehrer points out that the notion of simplicity is both obscure and complex. It is complex, because there are various ways in which one system can be simpler than another and these modes of simplicity may conflict. The notion of
simplicity is also obscure. It is hard to decide, on intuitive grounds, when one system is simpler than another.

Even if we grant that the notion of simplicity, in spite of its complexity and obscurity, supplies the needed ingredient, it will fail to solve the problem of justification. The appeal to simplicity complicates the problem of the coherence theory of justification even further. Lehrer says:

"If we seek both simplicity and coherence, we shall have the very strongest motive for rejecting observation statements for the purpose of reducing what needs to be explained thereby obtaining greater explanatory coherence and simplicity."

Sellars, Quine and Harman try to escape from the 'unwanted diminishment of the system' by an appeal to a principle of conservation. They suggest that 'if two systems are equal in explanatory coherence and simplicity, and all others less coherent and simple, then that system provides complete justification for beliefs within it which conserve what we believe, at least among statements of a specified variety'. But Lehrer holds that the principle of conservation of accepted opinion is a hindrance to inquiry, and should,
therefore, be rejected.

The above analysis makes it clear that explanation is neither a necessary nor a sufficient condition of coherence, although it is apparently relevant to justification. An objective explanation of coherence cannot provide an adequate analysis of our complete justification of beliefs and, hence, should be abandoned. Belief is, in fact, a subjective mental state. So in the second part of his discussion, Lehrer tries to develop a subjective theory of coherence and examines whether it supplies complete justification of empirical beliefs.

**Subjective Coherence**

Lehrer's subjective coherence theory is based on the beliefs of a man and coherence within the system of his beliefs. The system with which one's belief must cohere is called a doxastic system of a man. It is a set of subjective statements articulating what a man believes to be true. The doxastic system must be properly corrected in so far as the justification requisite for knowledge aims at truth. Such a corrected doxastic system must be possessed by an impartial and disinterested truth-seeker and Lehrer calls him a veracious man. Such a man should not retain those beliefs
whose justification does not aim at veracity. When, within the corrected doxastic system of a veracious man, a statement is believed to have a better chance of being true than any statement with which it competes for that status, it can be said to cohere with the corrected doxastic system of that man. According to Lehrer, "a statement competes for $S$ with those statements that are believed within the corrected doxastic system of $S$ to have strong negative relevance to it." \(^{54}\)

The definition of 'strong negative relevance' includes the concepts of 'negative relevance', epistemic field' and 'epistemic partition'. "One statement", according to Lehrer, "is negatively relevant to a second \(^{55}\) if and only if the second statement has a lower chance of being true on the assumption that the first is true than otherwise." An 'epistemic field' is a set of statements which a veracious man believes to be relevant to the statement whose epistemic status is under examination. In so far as our concern is whether a particular ticket has won a prize in a lottery, the proper field of statements must be constituted by the statements about the results of the lottery and not by statements about any other. The epistemic field of a veracious man must not be arbitrary but fulfil the necessary conditions for truth. From the epistemic field of a statement,
we can draw out a set of statements constituting this field and thereby obtain the epistemic partition of that statement. Such partition has conjunctions as its members. This partition can be used to construct a standard disjunctive form for each statement in the epistemic field of a statement.

Having explained the concept of 'epistemic field' and 'epistemic partition, Lehrer proceeds to define 'strong negative relevance'. The following is the definition of strong negative relevance as formulated by him.

"A statement r is strongly negatively relevant to p for S if and only if (i) r is negatively relevant to p and (ii) the disjunction of members in numerical order of the epistemic partition of p for S that is logically equivalent to r, is such that no disjunction of those members is irrelevant to p."  

To illustrate this concept, the lottery example is used again by Lehrer. In this example, the epistemic partition for statements concerning winners and losers is constituted by the statements describing the possible winners of the lottery (or conjunctions equivalent to those statements). The statement that the number one ticket loses the prize is equivalent to a disjunction which states that either the
number two ticket wins the prize or the number three ticket wins the prize and so on. So the statement that the number one ticket loses the prize has strong negative relevance to the statement that the number two ticket loses the prize.

Lehrer now gives more formal definitions of the notions 'strong negative relevance', 'competition' and 'complete justification of beliefs' and for this, he uses some symbols. 'p(h)' means 'the chance S believes h to have of being true within his corrected doxastic system,' 'p(h,e)' means 'the chance S believes to have of being true within his corrected doxastic system on the assumption that e is true'. The definitions are as follows:

"(i) r has strong negative relevance to h within the corrected doxastic system of S if and only if p(h, r) is less than p(h) and the disjunction d is logically equivalent to h and contains as disjuncts members m₁, m₂, and so forth of the epistemic partition of h for S in numerical order, is such that no disjunction d' of any of those members can be formed where p(h,d') = p(h).

(ii) r competes with h for S if and only if r has strong negative relevance to h within the corrected doxastic system of S."
(iii) S is completely justified in believing that h if and only if \( p(h) \) is greater than \( p(\neg h) \) and for any r, if r competes with h for S, then \( p(h) \) is greater than \( p(r) \)."  

Lehrer imposes a restriction on corrected doxastic systems that "the set of statements a man is described as believing be consistent as well as the set of statements describing those beliefs." In order to avoid inconsistency of beliefs, the different epistemic partitions used by a veracious man must be strongly independent of each other. It means that 'the epistemic partitions a man uses must be broad enough to cover the entire field or subject matter in sufficient detail so that no other epistemic partition encroaching on the area is needed to formulate the competitors for other statements'.  

Lehrer proposes a decision—theoretic proof of complete justification of beliefs in terms of the notion of expected value restricted to the values of a veracious man. For this, he initially assumes quantitative subjective probabilities though later rejects this assumption. 'Subjective probabilities' are formed by "beliefs about the chances of statements being true contained within in a corrected doxastic system." The expected value is calculated by the following formulae:
"e(h) = p(h) vt(h) + p(¬h) vf(h)." Here 'vt(h)' stands for 'the value for S of believing that h when it is true that h', 'vf(h)' stands for 'the value for S of believing that h when it is false that h', and 'e(h)' stands for 'the expected value for S of believing that h.' The above formula presents an expected value as 'the sum of value of true belief times the probability of that outcome, plus the value of erroneous belief times the probability of that outcome.'

For the sake of 'typographical simplicity', Lehrer deliberately avoids reference to time and subject. But actually the values and subjective probabilities belong to a person at a given time.

Lehrer thinks that in order to calculate expected value, the values of truth and error are to be specified. When we seek truth, we try to avoid erroneous belief. Therefore, error constitutes an epistemic loss which can be measured by the probability of a strongest competitor of the statement in question. According to Lehrer, "a strongest competitor of a statement, h, is a statement, h*, which has as high a probability as any competitor of h." He expresses this in terms of an equality.

"vf(h) = -p(h*)."
If we believe \( h \) to be true, we have the opportunity to believe any competitor of \( h \) and that is why "the loss resulting from erroneously believing \( h \) to be true is equal to the highest chance any competitor of \( h \) has of being true." The value of true belief can be derived from the value of erroneous belief. As gains and loses are equated with probabilities, the maximum gain can be called unity. Thus the gain resulting from correctly believing \( h \) to be true is equal to the maximum gain, less the loss resulting from erroneous belief. The equality can be formulated as:

\[
vt(h) = I - p(h^*). \tag{61}
\]

The above equalities plus the theorem

\[
p(\neg h) = I - p(h) \tag{62}
\]

Gives the following result 'by substitution in the equation for expected value'

\[
e(h) = p(h) (I - p(h^*)) + (I - p(h)) (-p(h^*)). \tag{63}
\]

This can be reduced to the following equality by algebraic manipulation:
"e (h) = p (h) - P(h*)". 64

So it follows that in contrast to erroneous belief, the expected value of true belief is positive. In Lehrer's terms:

".........the expected value for a man of believing h to be true is positive if and only if the chance he believes h to have of being true within his corrected doxastic system is better than the chance he believes the strongest competitor of h to have of being true." 65

Lehrer, therefore, adds the following principle to the above three formulations for the explication of complete justification.

"(iv) h* is a strongest competitor of h for S if and only if h* competes with h for S and, for any k, if k competes with h for S, then p (h*) is at least as great as p(k)." 66

So "p (h) is greater than p (h*) if and only if, for any r that competes with h for S, the p (h) is greater than p (r)." In the light of the above principle, complete justification stands as follows:
"(v) S is completely justified in believing that h if and only if e (h) is positive, that is, p (h) is greater than p (h*)".

We see that in order to obtain complete justification in believing a statement, a man's expected value of believing that statement must be positive. From the equivalence of complete justification and positive expected utility, it follows that in order to determine positive expected value it will suffice for us to assume comparisons of the chances we believe statements have of being true. So the coherence theory of justification need not presuppose a quantitative measure of subjective probability.

68 Ernest Sosa objects that from the fact that the proposition believed has a better chance of being true than its strongest competitor, it does not obviously follow that the epistemic value of a true belief should be positive. There may be a case in which a true proposition h has a chance of being true which is only slightly better than its strongest competitor. In this case, it does not seem obvious that believing h has a positive epistemic value.

The main point of Lehrer's thesis is that in seeking after truth, a veracious man must follow a method which would lead him to a justified belief. But Lehrer has not specified
the methods by which a man may attain true beliefs and avoid false ones. 'Perceptual experience', 'the testimony of others', 'our recollection of the past', our methodological and theoretical commitments' etc. are the various ways which may lead us to the belief that a statement is true or at least has a better chance of being true than some others. The doxastic epistemology of Lehrer is pluralistic.

Lehrer speaks of a possible objection to his theory. He admits that on his account, there is at least a logical possibility that a veracious man, though aims at truth, may still have some false beliefs about the world. The search for truth and the attainment of truth are two separate things. Therefore, he may be completely justified in his believing a statement to be true because it coheres with false beliefs within his corrected doxastic system. In this case, the man's complete justification in believing the statement to be true is based on false beliefs. Consequently, the man in question does not know the statement to be true. For this reason, Lehrer admits that completely justified true belief is not knowledge. Although a veracious man always seeks after truth, he may fail to attain it in some cases. To solve this problem, Lehrer adds a fourth condition of knowledge requiring that in order to attain knowledge, one must be completely justified in believing a statement in some way 'that is not defeated
by any false statement. To fulfil this condition, he uses the concept of 'verific alternative' to a corrected doxastic system which we have discussed earlier. But we have seen that even the addition of the fourth condition cannot remove the possibility of an unknown factor defeating our justification.

Sosa points out a major difficulty of Lehrer's theory. He says that this theory does not give us any guarantee that there will always be a unique corrected doxastic alternative for one's doxastic system. If there were such an unique alternative, we could have eliminated the inconsistencies of the original system in the alternative system in different ways. But as there is lack of guarantee concerning the uniqueness of the corrected doxastic alternative, it faces an undesirable consequence.

Lehrer's theory of coherence has often been criticised as giving merely a subjective justification. But he claims that with a simple qualification confirming the veracity of beliefs, his theory, despite its subjective origin, may attain the status of knowledge. But he has not suggested the way in which this purification can be done. Till he would not specify the way, his theory cannot yield anything more than mere subjective justification. But if
his theory gives mere subjective justification of our beliefs, it cannot explain complete justification of our non-basic beliefs. Hence, Lehrer’s theory simply fails to achieve its end.

In spite of its inadequacy, the merits of coherence theory consists in the fact that it avoids the inherent shortcomings of the foundationalist approach and supplies an important alternative to foundationalism as an epistemological program. But as this theory cannot properly explain complete justification of a man’s belief, it should be abandoned.

Thus we see that neither foundationalism nor non-foundationalism provides a satisfactory account of the concept of epistemic justification. But this concept is essential for our non-basic knowledge of worldly objects and facts. Unless a proper explanation of this concept is given, there seems to be no way to avoid scepticism.
NOTES


3. Ibid., P. 134.


5. Ibid., P. 186.

6. Ibid., P. 187.


15. Ibid., p. 173


18. Ibid., p. 83.

19. Ibid., p. 84.

20. Ibid., p. 85.

22. C. I. Lewis. An Analysis of Knowledge and Valuation.


24. The different versions of Chisholm's foundationalism are found in the following books and articles.

I. R. I. Chisholm. Theory of Knowledge,


4. 2nd edition of \( \text{1'} \), 1976.

5. Revision of \( \text{3'} \), Essays on Knowledge and Justification, edited by Pappas & Swain.


27. Ibid. p. 260.


29. Ibid. p. 260.

30. Ibid. p. 261.

31. Ibid. p. 262.

32. Ibid. p. 262.

33. Ibid. p. 263.

34. Ibid. p. 263.

35. Ibid. p. 267.

36. Ibid. p. 267.


43. Ibid. p. 165.

44. Ibid. p. 165.

45. Ibid. p. 165.


51. Ibid., p. 178.

52. Ibid., p. 181.

53. Ibid., p. 183.

54. Ibid., p. 212.

55. Ibid., pp. 192 - 193.

56. Ibid., pp. 195 - 196.

57. Ibid., p. 201.

58. Ibid., p. 205.

59. Ibid., p. 206.

60. Ibid., p. 206.

61. Ibid., p. 206.
62. Ibid., p. 206.

63. Ibid., p. 206.

64. Ibid., p. 206.

65. Ibid., p. 207.

66. Ibid., p. 207.

67. Ibid., p. 207.