

Epistemic Justification: A Critical Inquiry into the Coherentist Approach

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SUBMITTED BY

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CERTIFICATE



This is to certify that the dissertation titled **“Epistemic Justification: A Critical Inquiry into the Coherentist Approach”** submitted by **Nikhitha Antony**, bearing the Regn No. 19HPhL02, in partial fulfilment of the requirements for the degree of Master of Philosophy in Philosophy, is a bonafide work carried out by her under my supervision and guidance.

This dissertation has not been submitted previously in part or full to this University or any other Institution for the award of any degree or diploma.

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DECLARATION

I, Nikhitha Antony, hereby declare that this dissertation titled “**Epistemic Justification: A Critical Inquiry into the Coherentist Approach**” carried out by me under the supervision of Prof. C. A. Tomy, Department of Philosophy, University of Hyderabad, is an authentic piece of research work and I declare that to the best of my knowledge that no part of this dissertation was earlier submitted for the award of any degree, diploma, fellowship or any other similar title of recognition to any university or institute.

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Table of Contents

1 Chapter 1 Introduction

- 1.1 Traditional Account of Knowledge
- 1.2 Arguments for the Necessity of Conditions of JTB Account of Knowledge
 - 1.2.1 Is Belief Condition Necessary?
 - 1.2.2 Is Truth Condition Necessary?
 - 1.2.3 Is Justification Condition Necessary?
- 1.3 Are Three Conditions Of JTB Account Jointly Sufficient for Knowledge?
- 1.4 Gettier's Counter Example.
- 1.5 Responses to Gettier.
 - 1.5.1 Defeasibility Condition
 - 1.5.2 The Causal Theory of Knowledge
 - 1.5.3 Reliabilism
- 1.6 Epistemic Justification
- 1.7 Internalism and Externalism
- 1.8 Foundationalism and Coherentism

Chapter 2 Foundationalism and Coherentism

- 2.1 Foundationalism and Regress argument.
- 2.2 Versions of Foundationalism
- 2.3 Problems of Foundationalism
- 2.4 Coherence Theory of Justification
 - 2.4.1 Idea of Coherence
- 2.5 Coherence Theory of Truth
- 2.6 Coherence Theory of Justification

Chapter 3 Problems of Coherentism

- 3.1 Isolation Objection
- 3.2 Alternative System Objection
- 3.3 Probabilistic Turn-In coherence
- 3.4 Consistency, Completeness, and Coherence
- 3.5. Coherence and Incompleteness
- 3.6. Incompleteness Theorem
- 3.7. Coherence as incomplete

CONCLUSION

BIBLIOGRAPHY

Chapter 1

Introduction

The most important question in epistemology is on what is the ground on which knowledge rests. This was considered a fundamental question in epistemology since the time of Socrates. Different thinkers tried to provide answers to this question in different ways. Knowledge is traditionally known as Justified True Belief (JTB) until Gettier came up with his revolutionary counter examples. Gettier made a devastating objection for epistemologist, and his article prompted thinkers to rethink JTB as a definition of knowledge and also re-examine the justification condition. The evolution of epistemic justification was one of the important impacts of Gettier's article. Epistemic justification becomes a key aspect for analysing the knowledge, and it is concerned with the subject's beliefs rather than his or her action or decisions. Epistemic Justification is connected with truth and the truth element differentiate epistemic justification from other kinds of justifications.

Epistemic justification is an umbrella term, and various theories of justification arise out of it. What could be the necessary conditions for the justification of beliefs? This was a fundamental question in the theories of epistemic justification. Attempts to answer this question have caused the emergence of different theories of justification such as foundationalism, coherentism, reliabilism, etc..

In this dissertation, my focus is on coherence theory of justification. I have it divided into three chapters.

According to coherence theory of justification, beliefs or proposition are justified only if it coheres with other beliefs. By cohere it means fitting together or agreeing to each other. The coherence justification process is considered a web of beliefs. In this dissertation, I intended to give a critical inquiry into the coherentist approach to the justification. I shall be discussing traditional standard objections to show that coherence can't give an adequate account of justification. I shall explain the Bayesian theorem to show that truth

and justification stand separately. Finally, I made an attempt to show that coherence cannot lead to justification by attempting to raise an objection with reference to the Godel's celebrated paper Incompleteness theorem.

1.1. Traditional Account Of Knowledge

In his dialogue *Theaetetus*, Plato for the first time raised the question, "what is knowledge?" After rejecting many unsatisfactory definitions, he proposed that, knowledge considered as true belief with an account¹. Nevertheless, Plato did not provide an adequate explication of the term 'account'. Later philosophers rephrased knowledge into justified true belief or JTB. Hence, JTB account is called standard definition. It means,

S knows that *p* if and only if,

P is true

S believes that *P* is true, and

S is justified in believing that *P* is true

The above mentioned standard definition of knowledge provides a complete inquiry of knowledge concept. Since knowledge is analysed into three conditions, it is called tripartite definition of knowledge. The three conditions involved in the definition such as truth, belief and justification taken together are equated with knowledge. When all the three conditions are satisfied, a subject who holds the belief is said to possess propositional knowledge². The three conditions mentioned above are necessary and sufficient to constitute knowledge. First, the subject must possess a belief. The inclusion of belief condition in the tripartite definition means that one can know only what one believes. Second, the beliefs must be true. Third, the truth of the belief must have some good reasons, which means the subject must be justified in believing that *P* is true.

¹ Plato, *Theaetetus*, Translated by A.H. Waterfield, (London: Penguin books, 2004)

² There are three kinds of knowledge ; one is knowing propositional or propositional knowledge , second is knowing how, and the third is knowledge of acquaintance. Here we deal with propositional knowledge.

Justification is the third necessary and important condition for a belief to become knowledge, as per the tripartite definition of knowledge. without justification true beliefs would not be considered as a

candidate for knowledge. It must require supporting grounds or reason for the belief to be true so that there would not be any lucky guess or accidental truth. So justification guarantees the truth of beliefs.

According to the classical tripartite definition of knowledge, all three conditions are taken as necessary and jointly to constitute knowledge. However, some philosophers doubted whether these conditions are capable enough to produce knowledge. They raised two important questions:

1. Are each of these conditions individually necessary to produce knowledge?
2. Are all these three conditions jointly sufficient for knowledge?

Of these two questions, the one that is widely discussed in contemporary epistemology is the second. In line with the spirit of contemporary epistemology, my emphasis would be to understand whether each of three conditions of classical JTB are jointly sufficient and enough to constitute knowledge. However, before going to deal with this issue, I shall briefly discuss the arguments provided by different philosophers to show that one or the other condition of the JTB account is not individually necessary to produce knowledge.

1.2. Arguments for the Necessity of Conditions Of JTB Account Of Knowledge

Different philosophers have argued that one or the other condition is not necessary for knowledge. That is, some argue belief is not necessary for knowledge while others argue truth is not necessary. Yet some others argue that justification is essential for knowledge.

1.2.1. Is Belief condition Necessary?

Objection against belief condition states that belief is not a basic or an important condition for knowledge. This objection against belief condition argues that sometimes it is possible to know something without actually believing it. There are philosophers, who questioned the necessity of belief condition. For example, Colin Radford (1966)³ argues that knowledge is possible without having belief. He illustrates his position with the help of an example. Imagine Albert is quizzed on History of English. One question was “When did Queen Elizabeth die?”⁴. He does not think he knows the answer to that question; so he takes a guess. But his guess turns out to be the correct answer. Radford wants to point out that the correctness of his answers demonstrates that Albert has learned the answer, and has not forgotten it. The argument Radford showing through the illustration of this example, is that, even without believing P knowledge is possible.

This does not seem like the belief condition is eliminated by means of guessing. When Albert is guessing a certain answer to be correct, he believes that it is plausible. Therefore, guess is nothing but likelihood of a belief to be true. What Radford claims turns out to be that it is possible to have knowledge without justification and not without belief. If Radford’s account is accepted, we cannot distinguish between a belief which is accidentally true and one which is bound to be true. It is this element of necessity involved in the JTB account of knowledge that Radford questions. In the absence of the element of necessity, Radford’s account, namely knowledge is a guess that happens to be true, cannot qualify to be knowledge.

Another kind of objection was that the concept of knowledge is never considered as belief form. For Plato, knowledge was never belief. Knowledge comes in the realm of intelligible - what we get through our intellect, but belief comes under the realm of sensible - what we get through our senses. Knowledge and belief involve two different faculties. Whereas

³ Colin Radford, “Knowledge: By Examples,” *Analysis*, vol.27,1., (1966): 1-11

⁴ Ibid.

knowledge is infallible, belief can be mistaken. Hence, it is argued that knowledge and belief are of different nature.

In this objection, it is clear that the term ‘knowledge’ is used in a different sense than it is being used in the JTB account. Plato was never concerned about the empirical knowledge, on the other hand, JTB account is primarily concerned about the knowledge that comes under the sensible. Therefore, belief is considered as a basic necessary condition as per JTB account.

1.2.2. Is Truth Condition Necessary?

As in the case of belief condition, there are philosophers who questioned the need for truth as a necessary and sufficient condition for knowledge. There are three possible arguments which questioned the need for a truth condition in the standard definition of knowledge. According to the first argument, truth is always treated as a metaphysical notion rather than an epistemological notion. Truth as a notion is not clear yet, and it comes under the subject matter of metaphysics rather than epistemology.

The second argument says that Different theories of truth like correspondence, coherence, pragmatic, semantic, etc failed to agree on the notion of truth that would produce knowledge. Some philosophers argue that since there is no unanimous notion of truth among epistemologists, hence, the condition of truth in the classical tripartite definition of knowledge is questionable.

Skeptics put forward the third argument. They have challenged the possibility of knowing by questioning the accessibility of truth for the establishment of knowledge. Since Truth is inaccessible, it is impossible to have knowledge if the condition of truth is considered a necessary for knowledge. Therefore, skeptics argued that it is better to address knowledge as a *justified belief* rather than justified true belief.

The term ‘truth’ is often used in many senses. That there is a metaphysical notion of truth does not mean that there is no epistemological notion of truth at all. In fact, various understandings of truth such as correspondence, coherence, pragmatic, etc...are primarily

epistemological rather than metaphysical. Even the argument that epistemologists do not agree among themselves on the notion of truth does not show that there is no notion of truth. If one admits the aspect is which knowledge definition mainly as justified belief, what is at stake is the objectivity that we consider to be a characteristic of knowledge. Therefore, it is not possible to dispense with the truth condition in the account of knowledge.

1.2.3. Is Justification Condition Necessary?

Knowledge needs justification according to standard definition of knowledge. A minority of philosophers like Alvin Goldman (1967) and Armstrong (1973) reject the justification condition from the standard account of knowledge and argue that knowledge does not need justification. In his celebrated paper, “A causal theory of Knowledge”⁵, Goldman breaks from the conventional view of knowledge and argues that knowledge is derived through “causal relationship between a fact and belief that a person holds”⁶. It asserts that,, the person’s belief should become causally connected to the facts it represents. But Goldman himself pointed out some failures of the causal theory of knowledge. Hence, he came up with an alternative account known as reliabilism. Goldman explained the reliabilist account of knowledge, in his paper “What is justified belief ?”⁷. It is that Goldman replaced justification with reliability, hence this is showing justification condition is inadequate knowledge.

No unitary explanation of what constitutes a justification. Different philosophers have offered different account of justification. And Goldman’s account of reliabilism can easily be seen as his account of justification. It is true that he does not deny either belief condition or truth condition. His concern is under what circumstances we can have justification for the truth of our beliefs. Reliabilism both acts as the nature of knowledge and justification as well. Knowledge would rather be defined as true belief formed

⁵ Alvin. I. Goldman, “A casual Theory of Knowing,” *The Journal of Philosophy*, Vol.27, 12., (1967): 357-372.

⁶ Goldman, “A casual Theory of Knowing”, 357-372.

⁷ Alvin I. Goldman, “What is Justified Belief ?,” *Justification and Knowledge*, (1979): 1-25.

through reliable sources. This definition of knowledge becomes very specific about what justifies the truth of beliefs.

Now that we have examined each of the arguments against the necessity of the conditions involved in JTB account of knowledge and have argued for the necessity of each of the conditions, let us address the other important questions mentioned earlier about the sufficiency of each of the three conditions involved in the classical tripartite definition of knowledge

1.3. Are Three Conditions Of JTB Account Jointly Sufficient For Knowledge?

There have been instances in the history of philosophy where it has been pointed out that three conditions namely belief , truth, and justification do not constitute the sufficient condition of knowledge, though this objection was not as articulate as it is today. For example, British philosopher Bertrand Russell writes:

“it is easy to give an example of true beliefs that are not knowledge. There is a man who looks at a clock which is not going, though he thinks it is, and who happens to look at it at the moment when it is right, this man acquires a true belief as to the time of day, but cannot be said to have knowledge”⁸.

This follows that true belief is not regarded as knowledge, even if they have good reasons for it. With his counter examples, he seems to be arguing that truth and belief do not constitute knowledge. However, a close examination of his counter examples shows that he indeed argues against the tripartite definition of knowledge. In the first example, the man who looks at the clock had a justification for his true belief. Yet it fails to satisfy our normal intuitions of knowledge.

In 770 CE, Indian philosopher Dharmottara offers a case which is similar to Russell’s examples.

⁸ Bertrand Russell, *Human Knowledge: Its Scope and Limits*, (London: George Allen and Unwin, 1956).

“Imagine a desert traveller seeking for water. Suddenly he sees water. In fact, he did not see the water but unfortunately a mirage. When he reached the spot, fortunately, he found water there under the rock. Does he know that there was water under the rock? The answer seems to be negative. Again it is the matter of luck that played here”⁹.

Though the counter examples Darmottara raises are not historically made against JTB account of knowledge, it is clear that he presupposes a JTB like notion of knowledge and was convinced at least that truth and justification do not constitute sufficient condition for knowledge. The cases clearly satisfies that the conditions of truth and justification. Despite this, in the first case the conclusion is drawn from a false belief and in the second case what is claimed to be knowledge is the result of a lucky guess. All the examples discussed above were forerunners of the counter examples that Edmund Gettier, an American philosopher, raised explicitly advanced against JTB account of knowledge.

1.4. Gettier’s Counter Examples

Edmund Gettier illustrated the untenability of the classical account of knowledge in his short paper titled “Is Justified True Belief Knowledge?”¹⁰. He offers a couple of counterexamples which exhibits the classical analysis of knowledge is inadequate. Gettier argues that three conditions of tripartite definition of knowledge are inadequate to produce knowledge.

Gettier presents the counter examples:

Suppose Smith and Jones applied for a certain job. Smith has good reasons to believe a proposition that

(d) Jones will get the job, and he has ten coins in his pocket.

⁹ George B.J. Dreyfus, *Recognizing reality: Dharmakirti’s philosophy and it’s Tibetan Interpretations* (New York: suny press, 1997), 192.

¹⁰ Edmund Gettier, “Is Justified True Belief Knowledge?,” *Analysis*, Vol. 23, (1963): 121-123.

Smith's reasons for believing this proposition might be that the president of the company assured him that Jones would be selected, and Smith saw Jones counted the coins in his pocket. From the two beliefs he deduced that

(e) The man who will get the job has ten coins in his pocket.

Smith deduces (e) from (d) and accepts (e) on the grounds of (d).

So here, Smith has belief, and he also has good reasons for his beliefs, and it is justified. Hence, Smith is justified in believing that (e) is true.

However, Smith was the one who got the job, not Jones. surprisingly, Smith himself has ten coins in his pocket. Hence, Smith's belief that the man who will get the job has ten coins in his pocket is true(e).

In this example, Smith's belief that, the man who will get the job has ten coins in his pocket (e) became true and Smith is justified in believing that (e) is true. Unfortunately Smith does not *know* that (e) is true . Smith's belief is true but it is not knowledge.

Gettier says "it is equally clear that Smith does not *know* that (e) is true; for (e) is true in virtue of the number of coins in Smith's pocket while Smith does not know how many coins are in Smith's pocket, and bases his belief in (e) on a count of the coins in Jones's pocket, whom he falsely believes to be the man who will get the job"¹¹. Gettier shows that, only by accident or luck does the belief become true.

In Gettier's second counterexample Smith has good reason for believing that, Jones owns a Ford. Because he saw Jones driving a Ford. And he has a friend, Brown whose whereabouts is unknown but still Smith claims that "Jones owns a Ford or Brown is in Barcelona (h)¹²" and Smith justified in believing this. Then,

¹¹ Ibid,162.

¹² Ibid,162.

unknown to Smith, Jones doesn't have a Ford, he actually rent one, and unknown to Smith, Brown is in Barcelona indeed. In this case, Smith disjunctive belief (h) happens to be true and justified but it does not count as knowledge. Again, matters of luck have played a role here in order to make Smith's belief become true. Smith constructs his belief from a false belief that becomes true and attain justified true belief which is not knowledge.

What Gettier intends to show is that classical definitional account of knowledge is

insufficient, and also points out that there could be situations that lead subjects not to know beliefs or propositions even though all conditions of classical analysis are fulfilled. Hence, JTB is not equated with knowledge. Gettier did not completely rejecting the tripartite definition of knowledge but argues only about the need to supplement these three conditions, implying that justified true belief needs the fourth condition to become knowledge.

1.5. Responses to Gettier

It seems the Gettier problem creates a serious challenge to traditional account of knowledge. The epistemologists have made an attempts to redefine the JTB account by modifying the JTB account with the 4th condition or a supplement. But some thinkers were engaged in defending traditional JTB accounts by trying to show that these counterexamples don't work. However, both attempts are pointing to the failure of giving a universally accepted definition of knowledge. This also has paved a platform for discussing further Gettier-style counterexample scenarios.

Philosophers have responded to the Gettier problem mainly in two ways:

1. Admit that Gettier's counter example and try to find the 4th supplementary to the JTB account which excludes the counterexamples. This is called the fourth condition approach.
2. Find out ways that exhibits Gettier's examples are ineffective.

Apparently, a great number of replies to the problem put forwarded by Gettier, stick to the first possibility mentioned above, which says that there is a need for a fourth supplementary to the JTB account. Defeasibility condition, the causal theory of knowledge, and reliability are some responses to Gettier problem. Defeasibility condition tried to supply the fourth supplement. The causal theory of knowledge and reliabilism are good attempts to respond to Gettier without focusing on giving a supplementary condition.

1.5.1. Defeasibility Condition

Keith Lehrer and Thomas Paxson¹³ have made an attempt to define knowledge through adding a 4th condition to traditional JTB definition. They added defeasibility as the 4th condition which requires that there should not be any other truth that would have defeated one's justification for a belief and defined knowledge as Undefeated Justified true belief or UJTB. Justified beliefs can be counted as knowledge if there is no other truth that would have destroyed *a*'s justification for believing that *p*.

Lehrer and Paxson impress on the need for adding the fourth condition by distinguishing non-basic knowledge from basic knowledge¹⁴. Basic knowledge provides the basis for non-basic knowledge. If someone knows that a true statement without the help of further statements to support his belief or proposition, then his knowledge is called basic. Basic knowledge consists of true beliefs that do not require any justification. On the other hand, if someone's statement is true on the basis of other statements then his knowledge is non-basic. According to Lehrer and Paxson in the case of non-basic knowledge, JTB is inadequate. In order to become knowledge, it requires something else in addition. The additional requirement stipulates that there is no other truth that defeats the justification of the belief in question since it is possible that there are some truths that could defeat

¹³ Keith Lehrer and Thomas Paxson, "Knowledge: Undefeated Justified True Belief," *The Journal of Philosophy*, Vol.66, No.8., (1969): 225- 237.

¹⁴ Ibid, 225.

justification of the beliefs. The addition of defeasibility condition as a fourth condition does not help us overcome Gettier's counterexamples because there could always be some truths that would have defeated the condition of indefeasibility. Lehrer and Paxson themselves pointed to a problem of defeasibility saying there could be some true statements but misleading.

They write:

Suppose I see a man walk into the library and remove a book from the library by concealing it beneath his coat. Since I am sure the man is Tom Grabit, whom I have often seen before when he attended my classes, I report that I know that Tom Grabit has removed the book. However, suppose further that Mrs. Grabit, the mother of Tom, has averred that on the day in question Tom was not in the library, indeed, was a thousand miles away and that Tom's identical twin brother, John Grabit, was in the library. Imagine, moreover, that I am entirely ignorant of the fact that Mrs. Grabit has said these things. The statement that she has said these things would defeat any justification I have for believing that Tom Grabit removed the book, according to our present definition of defeasibility. Thus, I could not be said to have non-basic knowledge that Tom Grabit removed the book.

The preceding might seem acceptable until we finish the story by adding that Mrs. Grabit is a compulsive and pathological liar, and John Grabit is a fiction of her demented mind and that Tom Grabit took the book as I believed. Once this is added, it should be apparent that I did know that Tom Grabit removed the book, and, since the knowledge must be non-basic, I must have a non-basic knowledge of that fact¹⁵.

In this case, there is a defeater for the author's belief that Tom has removed book, and this is misleading, by Mrs. Grabit's statements. Which means, it is misleadingly suggested that his belief that Tom removed the book is false and his reasons for believing

¹⁵ Ibid, 228.

that is poor. It is also suggesting some false beliefs such as Tom is not in the library, he is far away, Tom has a twin brother, and the testimony of Mrs. Grabit is reliable. What is needed is Mrs. Grabit's statements must not be allowed to defeat the justification or explanation for the belief that Tom removed the book. It appears that this is not an efficient response to Gettier; hence defeasibility condition cannot count as the fourth condition.

Defeasibility condition has some other difficulties too. According to the proponents of UJTB theory, the production of knowledge requires complete justification. But critics raised some questions: "what does the term 'complete' or 'complete justification' mean? ; are there any degrees of justification to attain knowledge; if knowledge requires a high degree of justification, how high should it be? All these problems reveal undefeated justified true belief is not adequate to constitute knowledge. On the other hand, without focusing on supplementing JTB, thinkers like Goldman made an attempt to redefine knowledge by eliminating justification and proposing a theory called causal theory of knowledge.

1.5.2. The Causal Theory of Knowledge

Different approach intended to solve the Gettier problem was proposed by Goldman in his paper called "A Causal Theory of Knowing"¹⁶. His causal theory of knowledge is different from the classical JTB analysis.

Analysing Gettier's second counterexample On Goldman's account, Smith does not know (h) because in this case, the causal relation of Smith's belief and the fact which makes the belief is true missing.

Causal theory of knowledge asserts that, in order to get knowledge, one's belief must have a causal connection with the facts .

According to causal theory of knowledge,

¹⁶ Alvin.I. Goldman, "A casual Theory of Knowing," *The Journal of Philosophy*, Vol.27, No.12. (1967): 357-372.

S knows that *p*

If and only if

the fact *p* is causally connected in an ‘appropriate’ way with *S*’s believing *p*¹⁷.

For him, “appropriate” ways of the knowledge-producing process involve:

(1) Perception, (2) Memory, (3) A causal chain, (4) Combination of (1), (2), and (3)”¹⁸.

In the above example, the facts and the Smith’s beliefs are not casually connected or related. So Goldman adds causal connection as a requirement to traditional analysis of knowledge and redefines knowledge by excluding the justification condition.

However, it seems that the causal theory of knowledge faces some problems. Some critics raise the question: What exactly the appropriate way means? And how to distinguish between appropriate and inappropriate ways of causing. Others are concerned about the removal of the justification from the classical account of knowledge. Goldman (1976) himself worried about a problem of his causal theory faces. It is possible that someone’s belief is connected causally to the fact appropriately but yet cannot be counted as knowledge.

Imagine a situation, where Henry was driving in a car through the countryside and saw a barn in the field. So he thinks that there is a barn in the field and believed it, and it is causally connected with Henry’s perception of the actual barn, which is an appropriate way. According to the standards of the causal theory, Henry has a belief that, there is a barn, and it is causally connected to the fact via appropriate sensory experience.

However, Henry was driving through a fake barn county where people put lots of fake barns in the field, and he saw one of them. Luckily, Henry saw the one actual barn among the fake barns. Again, there is a matter of luck. Hence, we can not say that Henry has no

¹⁷ Ibid.

¹⁸ Ibid.

knowledge about the barns in the field, even though his belief got causal connection with fact. It implies causal theory of knowledge(1967) is also problematic. Even though the belief is causally connected with facts, there will be the chance of a matter of luck. Goldman recognized the inadequacy of his causal theory of knowledge and proposed a new theory called reliabilism. He centered his focus on reliability rather than casual connection.

1.5.3. Reliabilism

A well-known attempt to escape from Gettier problem is Reliabilism. Goldman realized the problems with his causal theory of knowledge and proposed a new one called Reliabilism, which is now considered as the most influential position in epistemology. This theory is closely connected to his formal causal theory. This theory asserts that, justified true belief is considered knowledge, if it is derived from a reliable process. In fact, he proposes Reliabilism as a theory of justification. “Belief’s justification depends on the reliable cognitive process or someone’s belief get justified only if the beliefs are produced by a reliable belief-forming process”¹⁹. Reliabilism replaces the justification condition, from the classical account of knowledge definition with the reliability condition.

However, Reliabilism is also facing some difficulties. The fundamental problem the theory faces would be discovery of reliable belief-forming methods. How does one know a reliable method or process? What distinguishes one’s reliable method from unreliable methods? Another problem that underlies reliability is that the term ‘reliability’ itself is vague. One’s reliable method or process may not be a reliable method for others. Again, one’s reliable process can make the justification that may sometimes lead to truth but sometimes leads to falsehood.

¹⁹ Alvin Goldman, “What is Justified Belief?”, *Justification and Knowledge*, (1979): 8.

Reliabilism seems wrong here. So the so-called Reliable process cannot assure achieving the truth, which makes us suspecting the definitional account of knowledge in terms of reliabilism.

Gettier reveals, classical understanding of knowledge analysis is inadequate and has some problems. Lots of responses have been formulated after Gettier published his paper, including the above-mentioned theories. But none of these responses solves the problem raised by Gettier; none of the responses accepted as a universal definition for knowledge account. Inescapability of Gettier problem points towards the difficulty of articulating a definitional account for knowledge. None of the alternatives could satisfy the concept of knowledge and also could not establish a proper relation between its three conditions. Especially, justification relation with truth looks problematic.. It shows that there is a gap between truth and justification. So to get the nature of knowledge, the concept of justification must be considered very carefully. An adequate enquiry into the justification condition is important to make sure about how a belief is justified? What would be the conditions for a belief to be justified?

Different answers to this question display the emergence of different theories of justification. Before getting into the different accounts of justification, it is necessary to understand the question like what is justification?, specifically epistemic justification. Here, what matters is answers to the questions such: How does a subject know that p ? How does justification work in making the belief true? What would be conditions for a belief to be justified?

1.6. Epistemic Justification

We try to justify beliefs, actions, law, morality, emotions, etc.... In each of these cases justification appear in multiple ways. There are different kinds of justification. Justification in epistemology, mainly focuses on the justification of a person's beliefs.

Bonjour define epistemic justification as follows:

“Epistemic justification is that piece of justification, which is appropriate to *beliefs* or *judgments*, rather than to action, decision, and so on. It may even be the case, though this would be very hard to show, that epistemic justification is the species of justification that is somehow most appropriate to beliefs. But there are other species of justification which also can apply to beliefs so that mere applicability to beliefs cannot be the sole distinguishing characteristics of epistemic justification”²⁰.

Fundamental concern of epistemic justification is what can be considered as good reasons for the justification of beliefs. In order to respond to this issue, different theories emerged within the notion of epistemic justification. Different notions of justification can be separated to two groups depending upon the factors and the approach adopted for the justification. Depending upon the nature of the factors involved in justification theories of justification are classified into externalist and internalist theories of justification. They are known as internalism and externalism respectively. On the basis of the method for justification, we can discern two distinct theories of justification such as foundationalism and coherentism.

1.7. Internalism and Externalism

In epistemology, justification has different grounds. Multiple theories emerged due to the multiple ways of looking into justification. Roughly speaking, a belief gets justified, mainly deon good reasons or grounds. But sometimes justification is said to be the way in which beliefs are produced or aspects that make a person’s belief justified. It could be either a subjective view of a person or something that is external. The debate between internalism and Externalism comes here. The basic idea behind this debate is what actually gives the grounds for justification Is it internal to a person or external?

The idea of internalism is nothing but, the justification of beliefs is completely decided through the things or aspects that are exclusively internal to a person. It shows the first-

²⁰ Laurence Bonjour, *The Structure of Empirical Knowledge* (New York: Harvard University press, 1985), 7.

person perspective on belief justification. The subject must have cognitive contact with factors that determine the justification of his or her beliefs. There are many versions of internalism such as access internalism, perspective internalism, Mentalism, etc. On the other hand, externalism denies everything about internalism and claims justification depends upon the factors external to a person. Externalists maintain that there must be an external relation between belief of a person and the factors that make the belief justified. Most prominent version of externalism is reliabilism.

As an ongoing debate, internalism and externalism have different thoughts on justification. One theory represents the internalist, human dependent, subjective aspects of justification, and the second one represents the externalist, human independent, objective aspects of justification. The conflict between these theories mainly depends upon what actually gives grounds for justification. The prime concern of internalism and externalism is whether the subjective aspect or the objective aspect should be considered as grounds for a belief to be justified.

1.8. Foundationalism and Coherentism

Another debate concerned with the nature of justification is one between foundationalism and coherentism. Both are known as theories of justification and try to explain how justification is structured. The above-mentioned theories are into how justification works. More specifically they are dealing with whether the factors involved in justification are internal or external. whereas, foundationalism and coherentism act more like a method that tries to explain how justification works. Like internalism and externalism, these are rival theories trying to find a better approach to justify beliefs. The central issue behind the foundationalist-coherentist debate is whether justification has a foundational structure or not. Foundationalist believes that, some beliefs are foundational. These beliefs act as foundational beliefs which are ultimately responsible for the justification of other beliefs that we have. Coherentist deny this position and argues that justification has a holistic structure.

My focus is on the debate between foundationalism and coherentism and how these two theories are exhibiting their approaches toward epistemic justification. I shall discuss foundationalism and coherentism in the coming chapter.

Chapter 2

Foundationalism and coherentism

Foundationalism is one of the most influential positions in epistemology. The roots of foundationalism can be seen in Aristotle's work "*Posterior Analytics*".²¹ He says that "A principle of a demonstration is an immediate proposition, and an immediate proposition is one to which there is no other prior"²². Some of the thinkers from medieval philosophy including Thomas Aquinas also held the foundationalist approach in their theories; which was quite different from the modern versions of foundationalism. However, Descartes was the one who gave a modern structure to foundationalism. He tried to establish a secure foundation for knowledge built upon certainty and indubitable truth. Other thinkers like Spinoza, Leibniz, Locke, Berkeley, Hume, etc believed in the foundational view that knowledge must have a secure foundation despite having different views about the source of foundation. A couple of metaphors has been accepted to explain the basic concept of Foundationalism such as the pyramid and the foundation of the building. The basic idea of foundationalism is nothing but knowledge resting on certain basic foundations and knowledge is built on those foundations.

Foundationalism classifies beliefs into two. One is basic or foundational beliefs and the other is non-basic or non-foundational beliefs or superstructure. The former one do not require any external support for their justification. on the other hand, non-basic beliefs need support from basic beliefs for their justification. Foundationalists claim that all beliefs are either basic or nonbasic and the nonbasic beliefs depend on basic beliefs. Foundationalism assigns a special epistemic privilege to basic beliefs that they are self-justifying and independent; it means that they can depend on themselves without any external support.

The classical version of foundationalism asserts that the basic beliefs are the kind of beliefs, that mainly concerns the subjective experiences that are given to a person

²¹ Aristotle, *Posterior Analytics*, 72a 7-9, translated by Jonathan Barnes, Oxford Press 1975, 3.

²² Aristotle, *Posterior Analytics*, 3.

directly and immediately. So apparently, classical version of foundationalism reflects an important principle of empiricism, which is the idea that, all our empirical knowledge is produced through or obtained from our experience.

For example, Timm Triplett says “I seem to feel the heat” and “I appear to see something red.” Such propositions are traditionally said to be epistemically certain, indubitable, or incorrigible for a person. They provide the necessary foundation for every empirical proposition that we know²³.

According to classical foundationalists, it is an uncompromising position that basic beliefs have a special epistemic property called infallibility²⁴. They claims that beliefs about our sensory states or our direct experience are justified because they are infallible²⁵. This implies that basic beliefs are infallible; they are justified non-inferentially, and these beliefs cannot be possibly mistaken.

2.1. Foundationalism and Regress Argument

Foundationalism is an answer to the problem of regress often raised in connection with inferential justification. Regress argument is a common philosophical problem introduced by skeptics. Ever since ancient times, regress argument has played as a form of objection to theories of justification. Regress argument consists in demonstrating that there is a series or chain of beliefs/statements where the justification of a one belief based on other belief and justification of the that belief would be on the again another one and this will continue without an end or goes infinite.

A regress argument is preceded by inferential justification, or it is an argument that justified the beliefs inferentially. The inference is a procedure of deriving conclusion from the premises. The conclusion is justified only if it is followed by the justified premises. It makes the justification conditional. The regress problem displays the never-

²³ Timm Triplett, “Recent Work On Foundationalism,” *American Philosophical Quarterly*, vol. 27, No. 2., (1920): 93-116.

²⁴ Jonathan Dancy, *An Introduction to Contemporary Epistemology* (NY: Basil Blackwell, 1985): 57

²⁵ Ibid. 57.

ending series of our reasons for the justification of our beliefs. There are four possible kinds of epistemic chains that figure in the discussion on epistemic justification. Audi write about the four possibilities of epistemic chains. They are:

1. The epistemic chain might be infinite.
2. The epistemic chain might be circular.
3. The epistemic chain might stop with the belief that is not knowledge.
4. The epistemic chain might stop with the belief, which is direct knowledge²⁶.

None of these kinds of epistemic chains gives satisfactory accounts of the justification of our beliefs. An infinite regress with no end and loop back on itself leaves justification of beliefs problematic. It leaves disappointing answers to the question of justification of our beliefs, or how our beliefs are justified. The foundationalist's task is, then, to find a way to provide answer to the regress problem. The regress argument made foundationalism suppose that, there must be some kind of justification that is non-inferential or justified without any inferential process in order to avoid the skeptical position that no beliefs are ever justified or the never-ending chain of justified beliefs. They hold the position that there must be a kind of justification that does not need any external support, and that justification does not depend on anything else and make an end to the regress of inferential justifications.

Foundationalists central claim is that, there would be two kinds of justification, such as inferential and non-inferential justification. They argue that some beliefs are justified inferentially, and some be are inferred non-inferentially or without any inferential process. Non-inferentially justified beliefs are self-evident beliefs which can justify themselves. Basic beliefs are self-evident, self-justifying. Being self-justifying, basic beliefs do not need any external support and the justification of basic beliefs depends on themselves.

²⁶ Audi, (2003), 188.

Justification must start from the secure foundation of beliefs that is certain, incorrigible, indubitable, and give no reason to worry about presuming it to be false. So, the foundationalists believe that such basic beliefs or foundational beliefs can stop the regress problem. Apparently, all foundationalists unanimously hold the position that there is a kind of justification that does not need any support to justify the beliefs. There have been contradicting views among the foundationalists that led to the emergence of various kinds of foundationalism by the end of the twentieth century.

2.2. Version of foundationalism

According to Triplett, there are two tenets that act as essential to any form of foundationalism:

1. “There are basic propositions.
2. Any justified empirical proposition is either basic or derives its justification, at least in part, from the fact that it stands in an appropriate relation to propositions that are basic”²⁷.

Foundationalist theories can be classified either on the basis of the first tenet or on the basis of the second. With regard to first tenet, different foundationalist theories offer different ‘specifications of the nature of the basic propositions’²⁸. With reference to the second, there are different ways of construing the relation between basic and non-basic propositions. The nature of basic propositions itself can be construed in various ways such as the content of the basic propositions, epistemic status of basic propositions, the nature of the notion of basic or foundational principles, belief status of basic propositions, and finally context dependence of the basic propositions. The bases of classification and the type of foundationalism that results from the adoption of the foundation of the division are as follows:

The content of basic propositions

²⁷ Triplett, (1920), 97.

²⁸ Ibid. 97.

1. Psychological Foundationalism
2. External- World Foundationalism

B. The epistemic status of basic propositions

1. Superior basics Foundationalism
2. Modest basics Foundationalism

C. The Status of “P is Basic” or foundationalist principles as Basic propositions

1. Iterative Foundationalism
2. Simple foundationalism

D. Belief status of Basic propositions

1. Belief Foundationalism
2. Sensory Foundationalism

E. Context-Dependence of Basic propositions

1. stable Basic Foundationalism
2. Contextual Foundationalism

‘On the basis of the basic and non-basic propositions relations, foundationalism can be alternatively classified. The relationship between these sets of propositions can be logical, and phenomenalist’²⁹. On the basis of the nature of the relationship between propositions that justify and those that are justified foundationalism can be classified as follows:

Logical Relationships

1. Deductive Foundationalism
2. Enumerative Induction Foundationalism

²⁹ Triplett, 97

3. Explanatory Induction Foundationalism

Phenomenalist Relationships

1. Phenomenalist Foundationalism

2. Non Phenomenalist Foundationalism

Foundationalism is also classified on the basis of the extent of justification of nonbasic propositions by basic ones as

1. Pure Foundationalism

2. Mixed Foundationalism

Depending upon whether the basic propositions are externalist or internist foundationalism can be classified into:

1. Externalist Foundationalism

2. Internalist Foundationalism.

The above-mentioned versions of foundationalism can be put under again three versions of foundationalism such as strong foundationalism, modest foundationalism, and finally weak foundationalism. Strong foundationalism asserts that basic beliefs are ‘infallible, incorrigible, and indubitable’³⁰. Infallible beliefs never be false, incorrigible means that there is no chance to correct them, and indubitable means that there is no reason to doubt them. Descartes was one of the important thinkers who followed strong foundationalism. Basic beliefs about our mental states are certain and indubitable. They cannot be false because the truth of the belief comes from the very experience of the person. For him, basic beliefs must be certain and indubitable, non-basic beliefs gets justification from basic belief by deductive process and must not allow any possibility of error.

C. I. Lewis is also a strong foundationalist and made an attempt to calculate the conditional probability, assessing on the basis of evidence. His attempt was a move from

³⁰ Dancy, (1985), 62-63.

certainty to proving infallibility. Chisholm was another contemporary strong foundationalist who also maintained the position that self-evident beliefs are certain.

Modest foundationalism holds that basic beliefs are not really infallible, inequitable, or incorrigible. They don't need to be certain, but only they must have some credible grounds. In this sense, modest foundationalism allows more beliefs into the category of basic beliefs. Weak foundationalism is another form of foundationalism that holds that some non-inferential beliefs or basic beliefs are minimally justified and such kinds of beliefs are not credible enough to support the other beliefs for justification. Laurence Bonjour brought up the weak foundationalist position and it shows some similarities to coherentism.

2.3. Problems of Foundationalism

Though foundationalism offers a satisfactory answer to the regress problem, it is confronted with various objections. Foundationalist treats basic beliefs as privileged and independent beliefs whose justification depends on themselves. So the problems of foundationalism start with basic beliefs. Some of the questions that are raised against foundationalism are :

- What exactly is the nature of so called foundational beliefs?
- Can foundational beliefs provides justification to themselves?
- What is the source of the justification of foundational beliefs ?
- How foundational and non-foundational beliefs related ?

Basic beliefs as self-justifying or independent beliefs have been a problematic aspect of foundationalism. Critics of foundationalism have questioned the self-justifying, infallible, incorrigible nature of foundational beliefs.

Lawrence Bonjour was one of the important thinkers who questioned the possibility of basic beliefs in his article titled "Externalist theories of empirical knowledge"³¹. Bonjour

³¹ Laurence Bonjour, "An Externalist Theories of Empirical knowledge," *Midwest Studies in Philosophy*, Vol.5, (1980): 53-57.

criticized foundationalist claims by asking “How are basic beliefs possible”³². The problem starts with whether basic beliefs are self-justifying independent beliefs or not. Bonjour made two points in order to show that the basic beliefs are not really basic. His point is , for a justification of belief there should be some reasons for why the belief is likely to be true.

Another problem is, even if there are basic beliefs, how they can guarantee that basic beliefs are true. How much is it convincing that the features of basic beliefs like infallibility or incorrigibility are providing truth? How does the justification process go from foundational to non-foundational beliefs? The process of deduction was the way of transferring justification from foundational to non-foundational beliefs. But again, the inferential process could be contaminated. So how could it guarantee the justification? It might be possible that they infer false beliefs from the true ones. The key objection coming from this argument is that there are no infallible beliefs.

Fallibilists hold the position that agrees with the point mentioned above that there are no infallible beliefs. Fallibilist attack on foundationalism was by denying the existence of non-inferential knowledge. Their claim is that, it is possible that the certainty of empirical knowledge might turn out uncertain after the repetition of the observation. Foundationalists especially classical foundationalists, claim that beliefs about our perceptual states or present sensory states are self-justifying and self-evident. Many philosophers objected to this claim by saying that perceptual belief cannot be said to be self-evident. For example, Michael Williams argued that “placing perceptual foundational knowledge is unintelligible”³³.

However, it is still unclear and uncertain whether basic or foundational beliefs are possible or not. Even if it is possible, the questions such as the authority of basic beliefs, where they come from, etc. are really debatable among the philosophers. Problem such as the about led philosophers to look for an alternative account of justification of beliefs.

³² Bonjour, “An Externalist Theories of Empirical Knowledge,” 53-57.

³³ Michael Williams, *Groundless Belief: An essay on the possibility of epistemology* (Oxford: Basil Blackwell,1977), 32.

This search ended with the coherence theory of justification, which is the view that belief is justified because they all mutually fit together.

2.4. Coherence Theory of Justification

2.4.1. Idea of Coherence

Contrast to foundationalism, coherentism denies the presence of the basic beliefs hence, rejects the view that basic beliefs have any epistemic privilege. They disagree with the concept of non-inferential justification, which exhibits self-justifying beliefs that do not need any external support. They also refute the idea of basic beliefs providing justification to non-basic beliefs. Another foundationalist idea that coherentists disagree with is the unidirectional or linear way of justification. Coherentists found this asymmetrical and argues that justification needs symmetry and coherence is intended to be symmetrical³⁴.

Unlike foundationalism, the notion of coherentism is holistic in nature. Justification of belief is not processed from part to part, but holistically. All beliefs, including our immediate or direct experience, seek justification from rest of the beliefs within the individual's epistemic system. Beliefs or propositions get justified because of their mutual relation or support from other justified beliefs within a system. A belief system is the collection of everything a person believes. Every belief is related, agreed upon, and supported by rest of the beliefs within a system. Nothing outside of the belief system can provide any support to obtain justification of beliefs in a system.

Otto Neurath expresses his opposing view toward foundationalism with his well-known raft metaphor(Neurath, 1932). Neurath compares the process of knowledge with the raft that needs to be rebuilt at the sea. The parts of the raft can be replaced, only by relying on the rest of the pieces of the ship; there is no dry dock to rebuild the raft in a solid place. Neurath's attempt through this metaphor is to refute the idea of knowledge, which must depend on the so-called basic beliefs, and treat themselves as the epistemically

³⁴ Dancy, 110.

privileged, immune from any criticism and providing justifications for other beliefs. Neurath's raft metaphor was the contradicting view of Moritz Schlick's pyramid metaphor, which shows the justification of the beliefs depends on some beliefs which can justify themselves.

Bonjour defines:

“coherence as a matter of how well a body of beliefs “hangs together”: how well is component beliefs fit together, agree or dovetail with each other, to produce an organized, tightly structured system of beliefs, rather than either a helter-skelter collection or a set of conflicting subsystems. By hanging together he means the various sorts of inferential, evidential and explanatory relations which obtain among the various members of the system of beliefs, and especially on the more holistic and systematic of these”³⁵.

Consistency is one of the important conditions that make a system coherent. Coherentists all agree that being coherent needs consistency. Later, Bradley came up with completeness or comprehensiveness³⁶ as a condition for a coherent system. But still, some thinkers believe that consistency and completeness are inadequate for a system to be coherent. Classical coherentists adopt the notion of entailment as a third condition. Brand Blanshard was one of the thinkers who proposed entailment as an essential condition for coherence.

Nevertheless, Blanshard's account of entailment leaves room for debate among the other coherentists. Dancy argues that Blanshard uses entailment as a central element in a coherent set, but this sounds problematic because traditional understanding of entailment is not a matter of degree. However, coherentists conceive the concept of coherence as a matter of degree³⁷. That is, when one belief set increases, it turns into more coherent. The matter of degree is a concern in the justification of coherence; it will not go well with

³⁵ Bonjour, (1985), 93.

³⁶ F.H. Bradley, *Essays on Truth and Reality* (Oxford: Clarendon press, 1914).

³⁷ more coherence means more justified.

entailment. Also, Some philosophers disagree with the idea of explaining a coherent system only on the terms of mutual entailment.

Contemporary coherentists like Lehrer (Lehrer,1974) and Sella (Sella, 1973) provide a substitute account of coherence. They define a coherent set as, consistent, complete, and mutually explanatory. The main concept here is, that when one's belief set increases, members in the set are explained by the rest of the members. Mutually explained members will be more likely to be coherent than others. The idea of mutual explanation helps the set to be symmetrical as well. If a belief has a high degree of coherence, this does not necessarily give an impression that, it should explain or explained by each and every members of the belief system. But it must be able to provide an explanation or be explained by at least some beliefs within the system.

Laurence Bonjour proposes coherence as a concept that has multiple aspects. Bonjour, explores different criteria of coherence.

Bonjour suggests:

1. A system of beliefs is coherent only if it is logically consistent.
2. A system of beliefs is coherent in proportion to its degree of probabilistic consistency.
3. The coherence of a system of beliefs is increased by the presence of inferential connections between its component beliefs, and it is increased in proportion to the number and strength of such connections.
4. The coherence of a system of beliefs is diminished to the extent to which it is divided into subsystems of beliefs that are relatively unconnected to each other by inferential connections.

5. The coherence of a system of beliefs is decreased in proportion to the presence of unexplained anomalies in the believed content of the system³⁸.

Coherence theory has been applied to both notions like justification and truth as well. The coherence theory of justification and truth stands differently, but also they are connected in a way. It is important to look into the coherent account of truth before exploring the coherence theory of justification.

2.5. Coherence theory of truth

Truth has been a key topic in the history of philosophy since ancient times. Many theories were formed to address the concept of truth and the issues related to it. Correspondence, coherence, pragmatic, redundancy, and semantic theories are the prominent theories of truth in contemporary philosophy which try to explain the notion of truth. Coherence theory of truth was one among them. 19th and early 20th-century idealist thinkers were the ones who advanced coherence theory of truth. In earlier times, concept of coherence was advocated by system-building philosophers like Spinoza, Hegel, F.H Bradley, etc; then the members of the logical positivist tradition undertook the initiative to exhibit coherentism in a more scientific way. Otto Neurath and C.G Hempel were some among them. Coherence theory of truth is in contrast to, its chief competitor, correspondence theory.

However, coherentist denies the position of the correspondence theory and argues that truth is not obtained through the not a relation between a proposition and an objective fact but truth consists in the coherence itself.

So the definition of coherence account of truth would be:

a proposition is true if and only if it is a member of a coherent set.

³⁸ Bonjour, (1985), 95-99.

The above definition mentioned that coherence is the sole condition or criteria for a proposition to become true. But sometimes the word 'coherence' made different kinds of sense among the coherentists. That led to the emergence of the various versions of coherence.

Traditionally, coherentist theory of truth is decided on the ground of consistency. Consistency was considered the necessary condition for coherence. According to this view, a proposition is true when it is consistent with other members of the coherent system. Consistency was the one that every coherentist agreed on unanimously. But by coherence, Blanshard means not just consistency. His idea of coherence was just beyond the consistency and much richer concept of comprehensiveness. (Blanshard, 1939)

Later, as we have noted earlier, coherence relation was explained in the terms of logical entailment. Many thinkers support this position and suggest that logical entailment makes the coherent system more plausible. This version of coherence theory of truth suggests, a proposition or a statement would become coherent if it entailed or entailed by other members of the system. The mutual explanation was another way of showing the coherence relation among the members in a system. This suggests that coherence is determined on the basis of the mutual explanation among the members of the set.

Different versions of theories provide a different account of coherence. The important thing here is, that even though it displays various versions of coherence, it still aims to show the truth as an internal relation between propositions or beliefs. It is all about an internal relationship inside the system of beliefs or propositions. If there any deficiency happens within the system, it could be altered or gets enough support from the rest of the members of the set. Consistency, comprehensiveness, and mutual explanation all together could provide a fully coherent system. Coherence theory intended to give a criterion or the definitional account of truth. Different philosophers give different responses to 'coherence as a criterion for truth'. Blanshard treats coherence as both criteria and the nature of truth. Walker (1989) suggests coherence as the theory about the nature of truth.

Nonetheless, some philosophers disagreed with defining truth in terms of coherence, and also they were against the idea that consideration of ‘coherence as a criterion of truth’. An important standard criticism to coherence theory of truth, was raised by Russell. According to him, there could be a chance for many coherent set of propositions. Further, coherence does not give any guarantee that there will be a unique most coherent set. It lets any proposition or statements to become true, since it fits into some coherent set.

This can be similar to Quine’s thesis of the underdetermination of theory by evidence. According to his theory, if evidence can equally and effectively handle a number of theories, how to identify the best one among them? It is impossible to claim all theories are true. Likewise, if different coherent sets provide a complete and different description of the world, it is not possible to say that all the complete descriptions are true. Of all those coherent sets, only one coherent set from these could be true. How to find that particular coherent set is again problematic. This objection suggests coherence theory of truth is wrong, and this standard attack against coherentism is called plurality objection.

2.6. The Coherence Theory of Justification.

Since foundationalism failed to offer a satisfactory notion of epistemic justification, coherence theory has become an alternative to foundationalism. Audi writes, “the central idea underlying coherentism is that justification (justifiedness) of a belief depends on its coherence with other beliefs one holds”³⁹.

A belief is justified when it appeals to the other members of the set. Each member in the set has some epistemic role to play. If any belief is lacking or inadequate to give support to the system, it would be altered or replaced by other beliefs which would increase the coherence in the belief system. A coherent system makes all its members justified. But it cannot promise that they are necessarily true. Coherence is a matter of degree. So adding more beliefs to the set will make the set more coherent. It will make all the beliefs justified. But after a point, the belief system cannot get further expanded. And adding

³⁹ Audi, (2003), 194.

more belief into the set will decrease the coherence of the growing whole. In this situation, all members may not be true, but they are still justified. The relation between the truth and justification in coherence is debatable.(Dancy,1985).

‘Coherence of a set of beliefs’ makes its members justified, and ‘coherence of sets of propositions’ makes its members true. It shows for coherentists justification is one thing and the truth is another thing and they treat justification and truth in separate ways.

Coherentism adopts a holistic conception of justification. Holism is the view that focuses on the internal formation or relation of a belief system. Audi explains how holism works with justification with his example :

John wonders how I know, as I sit reading, that the wind is blowing. I say that the leaves are rustling. He then asks how I know that Sally is not just making this noise by walking in the high grass. I reply that the high grass is too far away. He now wonders whether I can distinguish rustling leaves from the sound of a quiet car on the pebbled driveway. I reply that what I hear is too much like a whisper to be the crunchy sound of pebbles under trees.

In giving this kind of justification, I apparently go only one step along the inferential line: just to my belief that the leaves are rustling. My belief that there is wind is based on this belief about the leaves. After that, I do not even mention anything that this belief, in turn, is based on. Rather, I defend my beliefs as appropriate in terms of an entire pattern of mutually cohering beliefs I hold. And I

may cite many different parts of the pattern. For instance, I might have said that walking through high grass sounds different from windblown leaves. In the coherentist view, then, beliefs representing knowledge do not have to lie in a grounded chain; they fit a coherent pattern, and their justification emerges from their fitting that pattern in an appropriate way (Audi,2003, p. 195).

Holistic approach in a coherent system shows the justification of the system as a whole. Holistic approach in coherence takes system of a beliefs as a whole. coherence is considered as a property of a belief system. Justification of a whole belief system works in the way in which, every single beliefs/statements in the system are interconnected and

mutually agreed to each others in order to provide justification. Rather considering each one belief atomistically, holism takes the beliefs in the system as a whole. Such kind of holistic system would be more coherent system and justified.

According to coherentists, the regress problem presupposes the idea that justification has a linear or unidirectional structure. Coherentists deny the foundationalist concept of solving the regress problem, by linear and non-inferential way of justification. Instead of that, coherentists introduced the holistic approach and non-linear way of justification to respond to regress. Holism is the approach adopted by coherentists in order to respond to regress argument. suppose $\{B_1 - B_n\}$ is a belief system where all beliefs are interconnected and interdependent. each single beliefs in a system are justified by coherence among the beliefs. Critics might raise a question about conditional justification like B1 is justified only if B2 is. However, this will not be a problem, because even if B2 is not justified, there would be an alternative B2 that will make a better contribution to the $\{B_1 - B_n\}$ set. So the justification of B1 is not conditionally dependent on any other members of the system. Such a belief system never goes infinite and can stop regress (Dancy, 2003,128).

Unlike foundationalism, coherentism is intended to be symmetrical, which is one of the reasons coherentism is holistic in nature. Dancy ⁴⁰(2003) recognizes one of the advantages of coherentism , that is its ability to justify the principles of inference. The basic beliefs can not explain or justify above mentioned principles. Apparently justifying these would be difficulty for foundationalists. But for coherentists, principles of inference are justified like any other beliefs for increase the coherence and make the system more coherent.

Nevertheless, the coherence theory of justification is not immune from objections. like any other theory, it also faces some problems. The standard objections that coherence theory faces are mainly input objections or isolation problems, alternative system

⁴⁰ See Dancy for more advantages of coherentism. Dancy, 2003.

objection, and the problematic association of coherence justification and truth. The problems that coherence is worried about I shall discuss in the final chapter.

Chapter 3

Problems of Coherentism

Coherence theory of justification is not immune from criticism. Coherentism has some standard objections that challenge the idea of coherence. These all objections made a devastating challenge for coherence. In this chapter, I shall discuss some challenges to coherence theory of justification. The standard objections are Isolation objection, input objection, alternative system objection, and finally, objection from the truth connection. From those, input objections and isolation objections come together and discuss one problem which is the role of experience in the coherence theories. I shall be discussing alternative system objections and the truth connection problem together in order to show the problematic connection between truth and coherence. I shall also offer an account of the probabilistic turn in epistemology. Finally, I made an attempt to relate the mathematical theory of Gödel's incompleteness with the coherence theory of justification.

3.1. Isolation objection

Isolation objection is regarded as the standard and widely acceptable objection to the coherence theory of justification. Isolation objections are of many kinds. Earl Conee (1995) specifically talks about three kinds of isolation objections. They are The multiplicity objection, The contradictory objection, and The sensational objection⁴¹. I shall be focusing on the sensational objection rather than the other two. The central claim that the isolation objection makes is about excluding the role of experience in the coherence of belief systems. Coherence theory of justification states that, coherence is an internal relation among the beliefs in the belief system. Justification of a belief solely or exclusively a matter of coherence

⁴¹ Earl Conee, "Isolation and Beyond," *Philosophical Topics*, 23, No.1 (1995):129- 146.

and achieved only by internal relations among the beliefs, not by the relationship between beliefs and the world. Apparently, this kind of explanation to coherence theory gave rise to the isolation objection.

Moritz Schlick made a provoking statement on the isolation objection in his essays. He made an analogy of the coherentist concept of justification with fairy tales.

Schlick's intention was to criticize the coherence theory of truth which is determined through consistency alone. He argued that coherence failed to provide unambiguous criteria of truth. Recently, John Pollock (1986) was the one who brought attention to the isolation objection. He writes, "The basic difficulty with this is that it cuts justification off from the world"⁴².

Olsson says "As a universally acceptable objection, the isolation objection reveals that coherence theory isolates the beliefs or the belief systems from the external world. They allow the belief system with internally connected to each other without having external support or experiential element. That makes the coherence theory give the outlook of cutting justification off from the world. They give no importance to the experience of a person who holds the beliefs. Internal relations of the beliefs and the high coherence give the picture that even the dream could be justified in a coherentist way without the empirical data"⁴³.

Bonjour himself finds a problem with coherence is that, coherence alone is a matter of a relationship among a belief system. Since justification is exclusively happens by virtue of coherence, and coherence alone is a matter of internal relationships among the beliefs independent of the external world, then justification does not need any experiential element. Coherentists claim that justification is possible even without any

⁴² John Pollock, *Knowledge and Justification* (Princeton N.J: Princeton University Press, 1974), 28.

⁴³ Erik J. Olsson, "Coherentism," edited by Stephan Hetherington, (United Kingdom: Cambridge University Press, 2022): 10.

external aspect, such kind of system cannot give a correct account of knowledge about the world. Even if the belief system could provide a definite description of the world, it would be a piece of mere luck or accident. So coherence theory neither involves nor considers any relation with the outside world. It also isolates the beliefs from experience or the external world.

A belief system cannot be considered fully justified unless it allows the data of experience. Isolating experience or the exclusion of the external world makes the idea of coherence problematic. Since coherence excludes the role of empirical data, that leaves room for multiple challenges for coherence theory. A theory without appealing to the experience or the empirical data would end up as an absurd theory without any backup. So some of the coherentists tried to respond to the isolation objection in the favour of coherence.

The standard reply to isolation objections was mainly from Bonjour (1985) and Michael Williams (1980). Bonjour tried to refute the isolation objection by introducing the concept of cognitively spontaneous beliefs. These beliefs could be perceptual beliefs or memory. According to him, Spontaneous beliefs are originated non-inferentially, their justification is purely inferential and the justification of such beliefs depends on the coherence within the system of beliefs.

Bonjour proposes that bringing cognitively spontaneous beliefs into a justified belief system would become highly likely to be true and reliable and resolve the problem of exclusion of empirical data.

Michael Williams response to the isolation objection was different. His way of resolving isolation objection is through epistemic beliefs. Epistemic beliefs are ‘beliefs about beliefs’. He says “ epistemic beliefs include beliefs about techniques for acquiring and rejecting beliefs, beliefs about the conditions under which beliefs of certain kinds are likely to true, and so on ”⁴⁴.

⁴⁴ Michael Williams, “Justification, Truth, and Coherence,” *The Review of Metaphysics*, Vol. 34, No. 2, (1980):248.

However, these standard replies to the isolation objection are neither promising nor acceptable. Input objection made some coherentists realize the inclusion of experience in coherence theory. They might want to accept the idea that experience is necessary aspect for the justification of beliefs. This position is called non-doxastic coherentism. Non-doxastic coherentism would be promising solution to the traditional difficulties of coherentism. Basic idea that non-doxastic coherentism offers is that it is a combination of both beliefs and experiences. This non-doxastic coherent system includes both subject's beliefs and experiences. Both belief content and experience play their roles in the justification.

Although their attempts to resolve the isolation objection, still leave room for more questions and explanations. Since coherence is purely an internal relation among the beliefs in the system, it isolates the role of experience or empirical data. And attempts to solve this problem towards coherence by bringing the experiential element and the data of experience would make the coherence theory look like a version of foundationalism. With the understanding of the classical idea of coherence, coherence theory and empirical data are incompatible; even if they find any compatibility together, it will lead to some version of foundationalism.

3.2. Alternative System Objection

Alternative system objection is another significant objection to the coherence theory of justification. Alternative system objection often coupled with the problem of truth connection which shows the ambiguous relation between coherence theory of justification and truth. Alternative system objection argues that there will be lots of fully coherent or equally coherent but yet incompatible belief systems. It is possible that there will be multiple coherent systems that are equally coherent but also different from each other.

Like the isolation objection discussed above, the alternative system objection attacks the classical understanding of the coherence which is the justification of beliefs is solely a matter of internal relationships among the beliefs in a system. If the internal relationships among the beliefs in a system make the belief set coherent then there will be an infinite number of incompatible yet fully coherent sets. This objection claims that epistemic justification needs more than internal relations among the beliefs in one's system. Alternative system objection primarily argues that the coherence theory of justification is permissive⁴⁵ and gives room for making fiction about the beliefs one holds. Richard Feldman (2003) though he is not a fan of this objection, he provides an example:

“Consider the proposition that Abraham Lincoln was assassinated. If, as the objectors contend, there are many different, and incompatible, coherent systems of beliefs, there will be some systems that include this belief and others that include its negation. If that belief is part of your actual system, you can imagine a system that replaces everything supporting it or following from it with different propositions. By carefully constructing the new system, you could get one just as coherent as your current system, but including the proposition that Lincoln was not assassinated.

Thus, if there are all these different coherent systems, then you can make any belief you want justified simply by picking and choosing the rest of your beliefs appropriately. That cannot be right”⁴⁶.

The point Feldman makes is coherentism concerns justification alone as a matter of coherence and beliefs are justified only when it coheres with the other beliefs in the system. If coherence theory works in this way, it is possible to have many fully coherent yet incompatible belief systems. It shows coherence theory is too permissive and liberal and provides a platform for letting persons create their own fiction through the internal

⁴⁵ William Roche, “Can a Coherentist be an Externalist,” *Croatian Journal of Philosophy*, (2006): 9.

⁴⁶ Feldman, *Epistemology*, 67.

relations among the beliefs. It lets people believe whatever they want to. So the critics argue that coherentism is too permissive and it allows individual beliefs to fit into any coherent system and make room for fictional stories.

Another issue with the coherence theory of justification, suggested by alternative system objection is that, the inability to find out the most unique and complete coherent set from the rest of the sets. Different coherent belief set provides a complete but different description of the world. One cannot choose which particular set would describe the world correctly. Each set is complete and different. It would be an absurd idea that accepts all the complete and different coherent systems. It is also not possible for all different descriptions of the world to be true. Thus the task of coherentist is to point to a particular unique belief system among the other belief sets, which was unsuccessful. Coherentism cannot provide any way to find out the unique or perfect coherent set among the other coherent sets. The inadequacy to point to one unique coherent set makes the coherence theory problematic, which shows that the coherence theory is inapt for justification.

An important part of alternative system objection discusses the problematic relationship between coherence and truth. Paul Moser (1989), forwards a question that whether the coherence theory leads to truth.

Moser says:

“Mere coherence of a system of propositions, however comprehensive, fails to provide evidential probability concerning how things actually are. There are comprehensive coherent systems of obviously false, evidentially gratuitous propositions, such as propositions in science fiction. And for virtually any coherent system of propositions, we can imagine an alternative system consisting mainly of the denials of the propositions in the first system. But of course two such coherent systems cannot both be probability-providing for a person concerning how things actually are. This is especially clear if we construe “probable” as “more probable than not”. For if a proposition, P, is evidentially

more probable than its denial, $\sim P$, then $\sim P$ is not evidentially more probable than P . These considerations indicate that the mere coherence of a system of propositions does not make its members evidentially probable for a person. At most such coherence makes the members possibly true. But if coherence by itself is not probability-providing, a coherent system of propositions is not automatically probability-providing". (Moser 1989, 62).

The concern here is that, since coherence allows room for multiple coherent sets which all is equally coherent and different, it will be impossible to pick a unique most coherent belief set from rest. Moreover how coherence is intended to pick the most unique coherent set among the multiple coherent sets is questionable and uncertain.

Recently Louis Pojman (2001) exhibits the continuing influence of alternative system objection in the literature on epistemology. According to him, the alternative system objection reveals that the coherence theory of justification is inadequate because it cannot differentiate one unique coherent system from mutually incompatible belief systems. There could be an numerous systems that are equally consistent and mutually related. It would be very difficult to decide which system is true. If we cannot decide which coherent system is likely to be true, then justification cannot take place, leaving room for skepticism (Pojman, 2001).

The Pojman example illustrates the problematic relation between the truth and coherence theory which is an important objection to the coherence theory of justification that cannot brushed aside easily. Both objections like isolation and alternative objections act as part of the problem of truth connection. This objection is concerned with the relationship between truth and coherence. As a theory of justification, coherence is supposed to show, how it would makes sure that the beliefs are highly plausible to true. Apparently, all these objections showing coherence cannot do that.

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Epistemic justification, unlike other kinds of justification, is intended to give the truth about the world. So since coherence is the theory of justification it should provide why

the beliefs are more likely to be true? Some coherentists argue that coherence itself makes the beliefs set coherent. By coherence, they meant the internal relationship among the beliefs depends on consistency, mutual agreement, explanatory relations, completeness, etc... but unfortunately, none of these aspects makes coherence lead to truth.

Recently, Paul Thagard made a new form of objection to coherence. He argues:

“Coherence with scientific evidence strongly suggests that the universe is more than Ten billion years old, but that representation constructed by humans have existed for less than a million. Thus we can infer that there was a world existing independent of any human representation for billions of years. This inference does not in itself show that truth cannot consist in a relation only among representations, because a proponent of coherence theory could simply maintain that there were no representations and hence no true representations until intelligence beings were involved. But if there is a world independent of the representation of it, as historical evidence suggests then the aim of representation should be to describe the world, not just to relate to other representations. My argument does not refute the coherence theory but shows that it implausibly gives minds too large a place in constituting truth”⁴⁷.

The possible response from the coherentist toward these objections is to endorse coherence theory of truth. But unfortunately, coherence theory of truth cannot solve either alternative system objection or the truth connection problem.

⁴⁷ Paul Thagard, “Coherence, Truth, and the Development of Scientific Knowledge*”, *Philosophy of Science*, 74(1), (2007): 29-30.

3.3. Probabilistic Turn in Coherence

In the late 1990s, a couple of thinkers started to look into providing a mathematical framework for coherence theories. Adopting mathematical probability in the coherence framework has led to the probabilistic turn in coherence epistemology. Bayesian epistemology is the important one that comes under the umbrella term of probabilistic turn in epistemology. Bayesian epistemology offers a framework of mathematical probability for epistemological problems specifically justification and truth. This approach is intended to give solutions for epistemological problems with mathematical precision and clarity. Huemer (1997), Shogenji (1999), and Olsson (2002) were important figures who made an admirable attempt to explain coherence in the terms of probability. According to the Bayesian approach, the probability is talked about in terms of degrees of beliefs or credence. Basically, the probability assigned by the Bayesian approach to any proposition is between 1 and 0. If we assign probability 1 to any proposition means the proposition is true $P(A) = 1$. If we assign probability 0 to any proposition that means the proposition is false, $P(A) = 0$. So, the definition of the “conditional probability of hypothesis H given evidence $P(H/E) = P(E/H) P(H)/P(E)$ ”⁴⁸.

Coherence theory is a matter of degree. More coherent beliefs means more likely to be true. If we apply probability, more coherence leads to more probability and more probability will lead to the belief system being more likely to be true. This is done by the method of probability calculus. The probabilistic method in coherence offers a platform for a better explanation of concepts and output with maximum mathematical precision.

The probabilistic approach to coherence is mainly concerned with two issues such as problem of truth and definition problem. The truth problem is concerned with whether coherence can lead to truth and the definition problem deal with the problem that whether coherence can be defined precisely.

⁴⁸ Erik J. Olsson, “Bayesian Epistemology,” *Introduction to Formal Philosophy*, (2018): 431-442.

The probabilistic account of the problem of truth starts with the arguments between Lewis(1946) and Bonjour (1985). According to Lewis's argument coherence has the capability to increase the probability of a set of reported propositions⁴⁹ only if the individual reports possess certain credibility in themselves, provided that the reports are independent (Lewis, 1946). Lewis's this position is generally known as weak foundationalism. Bonjour in contrast, (1985), refutes Lewis's position and argues that coherence can increase the probability of a set of reported propositions, providing independence even without having no credibility of individual reports in themselves. In other words, for Bonjour even without any credibility or foundational ground, coherence can increase the probability. He accepts coherence alone as the source of justification and also he rejects foundationalism.

There is an analogy used to exhibit that multiple independent empirical beliefs make the system large and highly likely to be true if they all agree together or fit together.

Imagine there is a crime scene and multiple witnesses. Witnesses who independently report the murder. If multiple witnesses mutually agree on particular details about a crime unanimously, then there will be a good chance for those details to be more likely to be true. If all the details given by multiple witnesses fit together then one will reach the conclusion that they are probably true, it is considered to be true if one has no prior opinion about the reliability of the witness.

However, Michael Heumer in his article 'Probability and Coherence Justification'(1997), talks about the controversy between Lewis and Bonjour and argues that coherence cannot provide justification for beliefs the way in which proposed by Bonjour. That is, the argument he proposed works only if it has at least some foundational justification. The point he made is coherence cannot produce justification for beliefs in the absence of foundational ground. The important questions he discussed in his article were whether coherence can increase the probability and whether a more coherent belief set is more coherent. He tried to explore these questions by formally analyzing Bonjour's concept of

⁴⁹ "reported" can mean not only reported by witnesses or like, but also, more abstractly, reported by the faculties of memory or belief.

coherence justification and reaches a conclusion that no unification between probabilistic measures of coherence and the higher likelihood of truth. Heumer reaches the conclusion that Lewis's position was true and Bonjour's position was wrong. Coherence needs at least some credibility in itself and coherence is not an indicator of truth.

After Humer, Erik. Olsson made an extensive study on probabilistic account of the coherence theory of justification and truth. He made his discussion in his famous book known *Against Coherence: Truth, Probability, Justification* (2005). Like Heumer, Olsson also attacks the coherence theory from the grounds of probabilistic theory. The ultimate argument he is making is coherence is not truth - conducive means coherence cannot assure truth or is not able to achieve truth. In other words, he rejects the main tenets of coherentism that more coherence entails more truth. More coherence does not really mean more likely to be true or more probability.

Olsson draws attention to the topic by bringing the coherence position held by the thinkers such as C.I Lewis, A.C Ewing, Laurence Bonjour, and C. A. J. Coady. He examined the way each of these thinkers adopt coherence to justify beliefs from memory, testimony, and sense perception. Bonjour's account of coherence for justification fails here because coherence in its pure form cannot really be a reason for probability and truth. (already explained in the previous section). It must have at least some individual credibility in itself which points towards weak foundationalism.

Olsson shows that even if one goes with Lewis's position by admitting some credibility on individual beliefs, they could not provide an account of how many degrees they require specifically. There will be difficulty determining how likely coherent beliefs are true based on the degree of individual credibility. Olsson also explains the impossibility to define and explain coherence in the terms of probability. His concluding remarks are that 'coherence is not truth conducive and there is no relationship between the probabilistic measure of coherence and higher likelihood to be truth'⁵⁰.

⁵⁰ Erik.J.Olsson, *Against Coherence: Truth, Probability, Justification* (London: Oxford University Press, 2005).

However, the probabilistic approach to coherence failed to explain the gap between coherence and truth. Probabilistic tendency in coherence could not provide a significant link between truth and coherence. Thagard identifies three main problems that cause the limitation of probability in coherence from explaining the relation between truth and coherence. They are interpretation, realization, and implementation⁵¹. It follows that probability theory will not offer an adequate explanation for the relation between coherence and truth.

All these arguments explicitly show that coherence theory failed to offer a satisfactory explanation for justification and truth. Chance of an infinite number of coherent sets leaves coherence theory of justification problematic. Even though the coherence set has all its qualities like consistency, Mutual agreement, explanatory relation, completeness, etc.. it cannot really be connected to the truth, which would be a more problematic issue for coherence theory of justification.

Previously mentioned isolation objection and alternative system objection share the same idea which is the justification of belief depends on coherence and coherence is the sole matter of internal relationships among the beliefs in the system. Both these two objections claim that internal relation among beliefs are not capable for the justification. Apparently, no connection exist between coherence theory of justification and truth. which express that the coherence theory is false.

So far we have discussed the standard objections of coherence theory. All those objections are important and remind coherentists to rethink the way of articulation coherence for explaining both justification and truth. The common pillar behind the major objections to coherence theory is the traditional way of explaining coherence as the internal relationships among the beliefs in a system. Traditionally coherence is explained by logical notions such as consistency, completeness, and entailment. Both these coherence theory of justification and truth were explained by these logical notions. In the

⁵¹ Thagard, (2007), 31.

coming part, I shall be exploring the notion of consistency, and completeness and whether these notions cause any kind of challenge to coherence.

3.4. Consistency, Completeness, and Coherence

The notions of consistency and completeness have been considered the fundamental conditions for beliefs to be justified under the coherence theory of justification. Without any disagreements, all coherentists agreed on consistency which is the necessary condition for coherence. Bradley was one of the early proponents of coherence theory, who added completeness as another important criterion for coherence. Both these notions traditionally belong to the area of logic.

A statement or a set of statements is logically consistent, only if they can all be true at the same time without any logical contradiction. In short, a consistent set will be true and never contradict each other. On the other hand, a statement or set of statements is called inconsistent, if they can not be true at the same time and have contradictions or, a system is called inconsistent when it is not consistent which means any logical contradiction is provable in a system. One way of looking at this is, consistency could be defined in the terms of derivability.

Completeness is another logical theory that shows that a logical system is called complete if it can prove all statements are true. Logically speaking, a complete system should be able to prove the true statements from the given axioms. True statements in a logical system are true when it is provable and if they are provable then they must be true. In short, completeness is one can prove truth from the given logical system/ axioms. In the simplest form completeness is the ability to prove or the provability.

As the important conditions for coherence, Consistency, and completeness are intended to give logical accuracy and a better way of an inferring process which would make beliefs justified and highly likely to be true. Like a logical system, a belief system should also calculate in terms of consistency and completeness. A coherent belief system should be consistent and complete. Some coherentists think that logical consistency can assure

the truth and they consider logical consistency as a tool to determine truth. In this sense, a system should have the qualities of consistency and completeness.

3.5. Coherence and Incompleteness

So far, I have discussed three major objections to coherentism. All of the objections point to the fact that coherence theory is inadequate to connect with truth. Alternative system objection and the problem of truth connection show nothing but this point. In this part, I will discuss another objection to coherence theory, which is based on Gödel's incompleteness theorem, which I shall call the incompleteness objection. One of the important conditions of justification within coherence theory is that a system of beliefs justifying a given belief must be complete. The incompleteness objection prompted by Gödel's incompleteness theorem questions this basic requirement of completeness requires for justification. To see how this objection works it is important to understand the incompleteness theorem first.

3.6. Incompleteness theorem.

The famous first and second incompleteness theorems are introduced by Austrian mathematician Kurt Gödel in *On formally undecidable propositions of Principia Mathematica and related systems* (1931). This made a revolutionary impact on the area of Logic and Mathematics, and also made a huge effect on the philosophy of logic and mathematics. Before Gödel, mathematics is accepted as consistent and something that never leads to any contradictions and will not be able to leave results as undecidable. Mathematics was something consistent and complete. Hilbert's program was a famous attempt to offer a solid foundation for mathematics through formalization of all mathematics in axiomatic forms. Russell and Whitehead tried to show that mathematical truth can be deduced from a set of logical axioms. They also wanted to offer ground for mathematics with logic and set theory. Then Gödel came up with his first and second

incompleteness theorems which demonstrated that mathematics has its own limitations. He displays there will be a chance for the formal system to be undecidable. In order to understand his incompleteness theorems, we must look into certain concepts such as axioms, completeness, consistency, and formal system.

Formal system: It is a system filled with axioms that allow the production of theorems. Formal systems are common in logic and mathematics.

Axioms: Axioms are defined as statements that are self-evident and considered true. Axioms are regarded as the basis of any mathematical theorem. In other words, axioms act as a kind of premise or starting point.

Completeness: completeness is the ability to prove all the true statements within a system. If an axiomatic system is complete, then a statement or its negation of the statement can be prove from the axioms.

Consistency: A consistent formal system should not be able to generate a statement itself and its contradiction from axioms.

Inconsistency: A formal system is consistent when a statement and its negation are both provable from axioms.

First incompleteness theorem: A consistent formal system X , within the system there are some true statements that are neither provable nor disproved.

First incompleteness theorem states that, in a consistent formal system, there will be true statements that are undecidable. One cannot decide the validity of true statements, and such a formal system will be incomplete.

Second incompleteness theorem: Any consistent formal system X , within true statements in it, it cannot prove its own consistency. The second theorem states that an axiomatic system cannot show itself as consistent or it cannot prove its own consistency. In short, the first incompleteness theorem says that, if an axiomatic system is consistent, it is incomplete and the second theorem says, there will be at least some true statement in an axiomatic system that cannot be proved and hence, remains as undecidable.

The point made through both incompleteness theorems is that, there is a division between what is provable and what is truth. In simple words, Gödel's incompleteness theorem shows the gap between truth and proof.

Gödel numbering was the possible answer to this problem, which Gödel himself introduces. Incompleteness theorems are commonly misinterpreted as truths that can never be proved. But this is a false interpretation of the theorems. But according to these theorems, they deal with specifically some formal systems. They are not concerned about the absolute truth. The incompleteness theorem applies only to some particular axiomatic formal systems.

3.7. Coherence as incomplete

With reference to Gödel's incompleteness theorems, the concept of incompleteness could be another objection to coherence theory. Coherence theory works as a system of beliefs or statements. Internal relationships among the members of the system are important. Internal relationships among themselves are the core of coherence. Gödel's incompleteness theorem says that within the axiomatic system, one cannot prove its validity. Likewise, the coherence system also cannot validate its beliefs or statements from within the system. So coherence exactly cannot validate its beliefs or statements. Hence, the coherence system is incomplete. This objection is mainly concerned with the coherence and relation between truth.

A possible way to respond to incompleteness as an objection to coherence theory of justification would be, it includes some concerns from a coherentist view such as the kind of system that the coherentist speaks about, whether it is formal or not. , is there any possibility that a coherentist speaks about a formal axiomatic system? And finally, is the coherence system formal or not?

A coherence system is a system of beliefs or propositions which are considered to be true and need not necessarily be formal the way the incompleteness theorem uses. Gödel's incompleteness theorem refers to a purely formal axiomatic system. One may say that incompleteness will not apply to the coherence systems which are not formal and axiomatic. A formal system through a set of axioms and those axioms acts as the grounds or starting premise, but coherence does not work that way. If coherence accepts axioms then it will be no different from foundationalism.

As a theory of justification and truth, the concept of coherence has been facing many objections which are still ongoing discussions. Most of the objections are rooted in the traditional understanding of coherence which is coherence is treated as solely a matter of internal relationships among the beliefs in a system. However, this understanding of coherence creates an opportunity for the rise of objections for both the coherence theory of truth and justification which made a realization that internal relationships among the beliefs are necessary but not sufficient for coherence. Coherence needs more internal relationships in order to get beliefs justified.

The classical understanding of coherence theory mainly focused on the principle that the source of justification is coherence alone. Coherence theory worked as a web of beliefs in the justification process. This theory of justification had to face many objections. Classical standard objections like isolation objection and alternative system objection made coherence theory looks like fairy tale stories and fiction. The problem of truth connection was an important objection that cannot be brushed aside easily. Even using new approaches like mathematical probability, the relation between truth and coherence is still unattainable.

Different thinkers came up with different ideas to solve the objections towards the coherence theory of justification and truth. Non- Doxastic coherentism was one promising answer to escape the isolation problem and alternative system objection.

However, most of the solutions reach the same place where coherence becomes one of the versions of foundationalism. The combination of coherentism and foundationalism was another innovative response to the problem of justification. Susan Haack called this combined form of foundationalism and coherentism foundherentism. The problem of truth connection is an ongoing debate. All those attempts show nothing but the unexplainable relation between coherence and truth. Taking coherence theory of justification and truth as separate ways, and holding the idea that justification need not necessarily guarantee the truth, would be one way of advocating coherence theory of justification.

Finally, concept of coherence itself needs more clarity and explanation. Different ways of defining coherence such as ‘fit together’, ‘hanging together’, and ‘mutual agreement’, etc could not give a proper understanding of what coherence is or what makes coherence. The question of what is coherence still needs to be explored. In Bonjour’s opinion coherence is a multifaceted concept. All the characteristic mentioned earlier is a part of the multifaceted behavior of coherence. So, the lack of understanding and comprehension of the concept of coherence will make a room for lots of ambiguities.

4. Conclusion

I have pointed out through this critical inquiry that, coherence is not immune from objections. Coherence theory of justification has to face many problems in various ways. None of the objections can be brushed out easily.

Coherence theory of justification was introduced as a substitute for foundationalist theory of justification. Both foundationalism and coherentism are considered diametrically opposite. epistemic functions of both the theories and the processes and the method of justification they employ differ from each other. If coherence is an alternative to foundationalism, then it must be able to show why one should go for the coherentist way of justification instead of foundationalism. Apparently, all the objections towards coherentism made an obstruction in the way of the coherentist line of thinking regarding justification.

The problem starts with the concept of coherence itself. Coherence is defined by various terms and conditions which could not provide a proper understanding of the notion of coherence. The question of what is coherence and what makes coherence needs to be explored further. The isolation objection questioned the role of empirical data or experience in coherence theory. The restriction of experience in the coherence theory of justification gives the impression that coherence theory is disconnected from empirical world. If we assign empirical grounding to coherence then it will fall into some kind of foundationalism.

Alternative system objection reveals that it is possible to generate multiple fully complete yet different belief systems. It cannot find the most unique and coherent set from the rest. How coherence is intended to pick the most unique coherent set among the multiple coherent sets is questionable and uncertain. Critics also argue that coherentism is too permissive and liberal and it allows a person's beliefs to fit into any coherent system. Probabilistic coherence and the Bayesian approach was a recent development in coherence. The probability approach of coherence was an attempt to explain the

justification process in Bayesian standards. The probabilistic turn in coherence is intended to provide a clear definition of concepts and to provide results with maximum mathematical precision. But this approach also failed to offer a satisfying account of coherence theory of justification and truth. They could not provide any significant link between truth and justification. Finally i have made an attempt to relate coherence theory of justification with Godel's incompleteness theorems. This attempt shows that coherence as a system is incomplete and cannot provide an satisfactory account of justification.

All these objections would lead to the conclusion that coherence theory is inapt for justification. Coherence in its pure form can not be a theory of justification.

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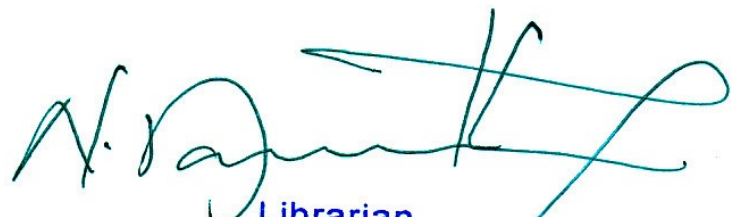
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Epistemic Justification: A Critical Inquiry Into the Coherentist Approach

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