

The Relevance of Indian Epistemology to Contemporary Western Philosophy

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Abstract This paper focuses on the relevance of Indian epistemology to contemporary Western philosophy. Hence it discusses (1) the definition of knowledge as justified true belief, (2) the Gettier and the post-Gettier counterexamples to this definition of knowledge, (3) Goldman's causal no-relevant alternatives approach including problem cases for reliabilism, and (4) the Nyāya solutions to the Gettier and the post-Gettier counterexamples as well as the problem cases of reliabilism. According to the followers of the Nyāya, belief, truth and justification are not independent properties. Truth is a property of belief, and justification is a property of true belief.

Regarding belief, this paper discusses six theories of the contemporary Western philosophy. According to the Nyāya, belief is a doubt free cognition. Hence there is a discussion on doubt as well. The Nyāya account of belief-sentences does not postulate intermediary entities such as propositions, images, or concepts as contents of our beliefs.

Keywords Gettier • Goldman • Reliabilism • Nyaya • True belief

Introduction

The aim of this paper is to demonstrate the relevance of Indian epistemology to Western philosophy so that it can be integrated with the mainstream of Western philosophy. Hence I shall discuss how to suggest solutions to some unsolved problems of Western philosophy, how to suggest better solutions to certain epistemological problems of Western philosophy, and how to add new dimensions to Western philosophy.

After a brief historical introduction to the theory of knowledge, the first section will deal with the definition of knowledge as justified true belief as well as the causal no-relevant alternatives approach of Goldman. In this context I shall try to show how to solve the age-old problem of knowledge in Western philosophy. According to our

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positive thesis, belief, truth and justification are not three independent properties. Justification is a property of truth, and truth is a property of belief.

The second section will deal with belief-sentences as discussed by contemporary Western philosophers. In this section I shall point out that none of the six theories found in contemporary Western philosophy is satisfactory. According to my positive thesis the Nyāya philosophers can give an account of belief-sentences without postulating propositions, or sentences, or intensional entities as contents of our beliefs. Since, according to the Nyāya, belief is a doubt free cognition, I shall discuss the nature of doubt and how the Nyāya concept of doubt is incompatible with certain types of scepticism. I shall also point out how to solve Kripke's puzzle about belief from the Nyāya point of view. Moreover, I shall point out that the Nyāya theory is comprehensive enough to deal with almost all types of belief-sentences of our language.

Knowledge

In this section, after a very brief historical introduction to this problem, I shall discuss primarily the views of contemporary Western philosophers about knowledge and the Nyāya solutions to the problems related to the definition of knowledge as justified true belief. Hence I shall discuss (A) the historical background to the contemporary definition of knowledge as justified true belief, (B) some contemporary theories, (C) Gettier's counterexamples to this analysis of knowledge, (D) post-Gettier counterexamples to the standard analysis of knowledge, (E) the causal no-relevant alternatives approach of Goldman, (F) some of the problem cases for standard versions of reliabilism, and (G) the Nyāya solutions to these problems.

(A) Historical Introduction

I will discuss the views of Plato, Aristotle and Kant in this context.

Plato

According to Plato, knowledge does not entail belief. The distinction between knowledge and belief can be drawn in the following ways:

- (i) Knowledge and belief are different faculties of the mind. Different faculties of mind are distinguished from each other in terms of their aims or what they achieve. The aims of knowledge and belief are their objects.
- (ii) The objects of knowledge are different from those of belief. The objects of knowledge are eternal unchanging Forms or Ideas, but the objects of belief

- are temporal, changing ephemeral things of this world. Hence the objects of knowledge are universals, whereas the objects of belief are particulars.
- (iii) Knowledge is related to reason, but belief is related to senses. The objects of knowledge are grasped through reason, while the objects of belief are apprehended through our senses.
 - (iv) Knowledge requires instruction, not persuasion; whereas belief can be induced through persuasion. Hence knowledge is resistant to persuasion. If you know that $2 + 2 = 4$, then no-one can persuade you to give up this knowledge.
 - (v) Knowledge is incorrigible or infallible, while belief is corrigible or fallible. Hence knowledge as a mental state is to be distinguished from belief which is also a state of mind.
 - (vi) Knowledge forms a system, but not belief. The objects of knowledge i.e. Ideas are related to each other in a certain way, but not the objects of belief.
 - (vii) The objects of knowledge do not revive the objects of belief. On the contrary, the objects of belief revive the objects of knowledge as the former participate both in being and non-being but not the latter.
 - (viii) Knowledge is directly related to its objects. It is like mental seeing or experiencing. But belief may be related to its objects indirectly. This is due to the fact that belief may depend on the views of others. Hence knowledge is related to its objects by acquaintance, but belief by description.
 - (ix) If I know something, then I know why it is so. But this does not happen in the case of belief.
 - (x) Knowledge is explained in terms of recollection as the soul lived in the realm of Ideas, but belief is not a case of recollection as it depends on senses.
 - (xi) Knowledge is virtue, but not belief. If a person knows the Good which is at the apex of the hierarchy of Ideas, then it affects his/her entire being. His/her acts, thoughts and desires converge on the ultimate end which is the *summum bonum* of life. Hence the knowledge of the Good, once attained, determines will and action. There is no doubt that Plato has laid the foundation for serious speculative philosophy and Platonism has survived through centuries or millennia. In spite of several commendable features, his official theory of knowledge has some shortcomings. It does not have much appeal to empiricists or scientific realists as they are concerned with the objects of experiences or natural science. His theory presupposes a dichotomy between the world of Ideas and the world of sense. Hence, it is difficult to bridge the gap between these two worlds. Moreover, it presupposes a conception of soul which is hard to substantiate. Furthermore, his official theory does not explain our ordinary uses of the word 'knowledge' as it is concerned with transcendent objects. For this reason it does not have much appeal to the philosophers of science or cognitive scientists.

But there are suggestions for another definition of knowledge which has influenced the subsequent development of Western philosophy. In the *Meno* of

Plato, it has been said that what turns a true belief into knowledge (*episteme*) is an *aitias logismos*, i.e. the working out of an explanation. In the *Theaetetus* also ‘*episteme*’ (‘knowledge’) is defined as “true belief with an account.” Hence justification is necessary for knowledge. Therefore, Plato is the forerunner of the contemporary thesis that knowledge is justified true belief.

Aristotle

Aristotle has added another dimension to our discussion of knowledge, although he has been influenced by some ideas of Plato as found in dialogues such as *Meno* and *Theaetetus*. He has applied the word ‘*epistasthai*’, translated as ‘know’, to a range of propositions about general laws, observable and non-observable states of affairs, etc. But his primary use is confined to demonstrative science. According to him a scientific theory must be demonstrative in character. A set of theorems must be deducible from certain fundamental principles or first principles which are necessarily true. Hence his theory is applicable to deductive sciences such as logic and mathematics, or even to rigorous scientific theories where the axioms are necessarily true or indubitable. Since the empirical propositions are not necessarily true or indubitable, it is hard to deduce them from first principles. Hence there is a gap between his theory and its application to our world of contingent facts or propositions. Terence Irwin, a contemporary commentator on Aristotle, says: “. . . he (Aristotle) does not explain how he reconciles this relation of theory to experience with the epistemological status that he claims for the first principles of a scientific theory” (Irwin 1992, p. 28). From this remark it follows that his view of knowledge is confined to deductive sciences. Hence he does not explain our ordinary or empirical uses of the word ‘know’. Therefore, his view is not comprehensive enough, although he has explained the use of the word ‘knowledge’ in formal or rigorous sciences.

Kant

Kant is concerned with the question of how knowledge is possible, not with the question of whether knowledge is possible. Since he has used the word ‘knowledge’ in the sense of ‘synthetic *a priori* judgement’, he is concerned with the question how synthetic *a priori* judgement is possible. According to both Plato and Kant, knowledge is *a priori*, although the word ‘*a priori*’ does not have the same meaning for both of them. The Platonic definition may be stated in the following way: *x* is *a priori* if and only if *x* is acquired before experience.

According to Plato knowledge is a case of recollection. Hence it is acquired before experience as the soul lived in the realm of Ideas or Plato’s heaven. But the Kantian definition does not presuppose a Platonic conception of soul or Ideas. His definition may be stated thus: *x* is *a priori* if and only if *x* is not derivable from experience.

As regards the criterion of *a priori* Kant claimed that universality and necessity are marks for a prioricity. Since Kant is concerned with propositional knowledge, he considers judgement as the unit of knowledge. A judgement consists of a subject-concept and a predicate-concept. Synthetic judgement is defined in the following way: a judgement is synthetic if and only if the predicate-concept is not contained in the subject-concept. Hence the synthetic character of a judgement emphasises novelty. Since knowledge is synthetic *a priori* judgement, it must be characterised by novelty, universality and necessity. According to Kant, knowledge is a product of a process which involves both the faculties of sense and the understanding. Hence it involves both percepts (intuitions) and concepts. Percepts, according to Kant, without concepts are blind and concepts without percepts are empty. Hence knowledge cannot be derived from experience alone or understanding alone. According to Kant, thorough-going empiricism cannot explain the necessity and the universality in our knowledge. Again, thorough-going rationalism cannot explain the novelty in our knowledge. Since knowledge is a product of percept and concept (or categories), it retains novelty, necessity and universality. It involves both the passive and the active faculties of mind.

According to Kant, the judgments of arithmetic such as ' $7 + 5 = 12$ ', the judgments of geometry such as 'Three angles of a triangle are equal to two right angles', the assumptions or postulates of natural science such as 'Every event has a cause', and the principles of ethics or moral science such as 'Act only on that maxim through which you can at the same time will that it should become a universal law' exhibit novelty, necessity and universality. Since necessity and universality are not derivable from experience, the judgments which exhibit them must be *a priori*. For this reason the judgments of arithmetic and geometry, and the principles of natural science and ethics, are *a priori*. Again, since these judgments exhibit novelty, they are synthetic. Hence, they are synthetic *a priori*. It is to be noted that, according to Kant, synthetic *a priori* judgments are not possible in deductive logic and metaphysics. Hence these judgments do not express knowledge.

From the above discussion of Kant it follows that he cannot assign the status of knowledge to true empirical propositions (or judgments) such as 'I am in this room', 'The table is brown', etc. Hence his system also like Aristotle's cannot explain our ordinary uses of the word 'know' or 'knowledge'.

(B) Contemporary Philosophy

Almost all the twentieth century Western philosophers have accepted the suggestion of Plato that knowledge cannot be equated with true belief. Hence they have defined it as justified true belief (JTB), although there is no unanimity with respect to the definition of 'justification' or 'belief'.

A. J. Ayer has suggested the following definition: *S* knows that *P* if and only if (i) *P* is true, (ii) *S* is sure that *P* is true, and (iii) *S* has the right to be sure that *P* is true.

Similarly, R Chisholm proposed the following definition: *S* knows that *P* if and only if (i) *P* is true, (ii) *S* accepts *P*, and (iii) *S* has adequate evidence for *P*.

D. M. Armstrong, in his book *Knowledge, Belief and Truth*, has claimed that the following definition would satisfy different formulations: *S* knows that *P* if and only if (i) *P* is true, (ii) *S* believes that *P* or *S* is certain that *P*, and (iii) *S* has adequate evidence for *P* or *S* has good reasons for believing that *P*.

(C) Gettier-Type Counterexamples

But in 1963 Gettier argued that the analysis of knowledge as justified true belief is incorrect. He put forward the following two counterexamples to this analysis of knowledge:

- (1) Both Smith and Jones have applied for a job. Suppose the director of the company told Smith that Jones would get the job. Smith found ten coins in the pocket of Jones. On the basis of the following two premises: (a) Jones is the person who will get the job, (b) Jones has ten coins in his pocket, Smith infers, (c) The person who will get the job has ten coins in his pocket.

Now suppose Smith got the job and he also had ten coins in his pocket. Since Smith has justified true belief in (c), the standard definition of knowledge applies to (c), but he does not know (c).

- (2) Suppose Smith has always seen Jones driving a Ford, and was just now given a ride in a Ford by Jones. From these evidences Smith believes that Jones owns a Ford. From the premise (a) Jones owns a Ford, Smith infers (b) Jones owns a Ford or Brown is in Barcelona.

Now suppose Jones does not own a Ford, and Brown happens to be in Barcelona. It is just a lucky guess of Smith that Brown is in Barcelona. Hence (b) turns out to be true. Since it has satisfied the other two criteria of knowledge, it is a case of justified true belief. But Smith does not know (b). Subsequently many other counterexamples were put forward, and they are called ‘Gettier-type counterexamples’.

The first attempt to avoid the Gettier-type counterexamples was suggested by adding a fourth condition which may be states thus: *S*’s justification for *P* does not include any false beliefs (Pollock 1986, p. 181).

(D) Post-Gettier Counterexamples

But subsequently other types of counterexamples were put forward by philosophers such as Goldman, Lehrer and Feldman. In their counterexamples the justification does not include any false beliefs. They are called ‘post-Gettier counterexamples’. Let us state the following counterexamples:

- (3) Suppose John is driving through the countryside, and sees something which he takes to be barns. These things look like barns and some of them are barns. John believes that they are barns, and his belief is also true by virtue of there being barns. Since all the appropriate conditions for visual perception are present, his belief is justified as well.

Now suppose people around that countryside have constructed several barn façades which cannot be easily distinguished from real barns. Since he cannot distinguish real barns from barn façades, he cannot claim to know that what he has seen are barns, although he has justified true belief (Pollock 1986, p. 181).

- (4) Suppose a ball looks red to you and on this basis you judge it to be red, and it is really red. But the ball is illuminated by red lights, and you do not know that it is illuminated by red lights. Since it is illuminated by red lights, it would look red to you even if it were not red. Hence you do not know that the ball is red, although your belief has been justified as the appropriate conditions of perception are present and it is true (Pollock 1986, p. 181).
- (5) Suppose Smith knows the following proposition: P – Jones, who is an extremely reliable person and works in his office, has told Smith that he, Jones, owns a Ford. Suppose Jones was in a state of hypnosis when he mentioned this to Smith, and he won the Ford in a lottery. But the fact that he won a Ford remained unknown to both of them. Now Smith deduces the following proposition from P: Q – Someone, who is extremely reliable and works in his office, has told Smith that he owns a Ford. Now Smith deduces the proposition R from Q. R – Someone who works in my office owns a Ford. Now it is claimed that Smith has justified true belief in R as he has evidence for R, but does not know that R (Moser 1992, p. 158).

Counterexamples of this type have led to a number of defeasibility analyses of knowledge. A defeasibility analysis requires that there be no true defeaters. Following Klein and Pollock the defeasibility condition may be stated in the following way: There is not a true proposition *t* such that if *t* were added to *S*'s beliefs then *S* would no longer be justified in believing *P*.

By applying the defeasibility condition it is claimed that the above examples do not represent cases of knowledge. In our last example, if Smith had known the true proposition that Jones had entered the state of hypnosis, then he would not have believed that Jones owned a Ford. Hence Smith would no longer be justified in believing that someone who works in his office owns a Ford.

But Lehrer and Paxson have put forward the following counterexample to the above defeasibility analysis of knowledge:

- (6) “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 thousands of 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.

The preceding might seem acceptable until we finish the story by adding that Mrs Grabit is a compulsive and pathological liar, that John Grabit is a fiction of the 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” (Quoted in Pollock 1986, p. 182).

Since this example involves a true defeater defeater, the above formulation of defeasible analysis cannot handle such cases. In order to deal with this type of example Moser has suggested a more complex form of defeasibility analysis (Moser 1992, p. 158). According to him, if S knows that P on the justifying evidence e then e must be truth-sustained. In other words, for every true proposition t , when t joined with e undermines S 's justification for P on e , then there is a true proposition, t' , such that when it is conjoined with e and t , it restores the justification of P for S .

Against this formulation it may be said that we can never be sure that we know the proposition in question, because it is not always possible to know a true proposition which will restore the previous belief. Moreover, this type of defeater defeater regress may occur again. It is also claimed that by adding a true proposition which will restore the previous belief we may be adding new reasons for believing the previous proposition. Hence we may not be restoring the old reason (Pollock 1986, p. 182). Some philosophers are also sceptical about the fourth condition of knowledge, which can handle both the Gettier and the post-Gettier type of counterexamples. Pollock claims that no proposal of this sort has been worked out in the literature (Pollock 1986, p. 182).

Similarly, Moser claims that there is no consensus among philosophers with respect to the fourth condition of knowledge. To quote Moser: “The history of the attempted solutions to the Gettier problem is complex and open-ended; it has not produced consensus on any solution” (Moser 1992, p. 158).

It may also be claimed that the proposals put forward to handle the Gettier-type of counterexamples are *ad hoc*. This is due to the fact that the belief-condition, the truth-condition and the justification-condition have been taken separately or in isolation. For this reason even if all the conditions are satisfied we fail to establish that it is a case of justified true belief, where *justification* is a qualifier of truth, and truth is a qualifier of belief. Before discussing the above six counterexamples from the Nyāya point of view let us mention the reliable process theory of Goldman, which claims to solve some of the problems of Gettier-type counterexamples.

(E) Goldman's Causal No-Relevant Alternatives Approach

Goldman considers the causal factor of knowledge, but not pseudo-causal factors (Goldman 1986, Ch. 3). Let us consider his example: Tom wakes up in a foul mood one morning and says, 'Today is going to be a miserable day'. Suppose his day was miserable, and hence his belief was true. This type of causal justification is not adequate for knowledge. But the same belief will have the status of knowledge if it is based on an authority. Suppose Tom gets a phone call from his colleague who reports on excellent authority that half of the staff will be laid off and Tom is one of them. Hence Tom believes that today is going to be a miserable day, and suppose his belief is true as he will be laid off. In this case Tom's belief will assume the status of knowledge as it is based on an authority. Hence, according to Goldman, if a true belief is based on a reliable causal process, then it will have the status of knowledge. For this reason Goldman's theory is called 'casual reliability approach', which is different from 'reliable-indicator approach' of Armstrong (1973). Ramsey, for the first time, introduced the reliable process approach. He says, "I have always said that a belief was knowledge if it was (i) true, (ii) certain, and (iii) obtained by a reliable process" (Ramsey 1960, p. 258).

Now we have several types of reliable-process approach. The following pairs would give rise to several types of reliable-process approaches: (a) global reliability and local reliability, (b) actual reliability and counterfactual reliability, (c) pure subjunctive reliability and relevant alternatives reliability.

The relevant alternatives approach of Goldman considers the situations which are relevant alternatives to the truth of the proposition in question. According to this approach a true belief, say *P*, fails to acquire the status of knowledge if there are relevant alternative situations in which the proposition *P* would be false, but the process would cause the agent to believe in *P*. Hence the process cannot discriminate the truth of *P* from other alternatives. For example, Smith sees Judy crossing the street and correctly believes that Judy is crossing the street. If it were Trudy, Judy's twin sister, Smith could mistake her for Judy. If Smith could make this type of mistake, he does not know that Judy is crossing the street. The relevant alternatives approach considers only those alternatives which are relevant in that situation. Hence it considers the situation in which Judy's twin sister is crossing the street. If the knower can discriminate the relevant alternatives, then the process which has produced the belief is generally reliable. Hence Goldman's definition of 'knowledge' may be expressed as follows: *S* knows that *P* df. *S*'s belief in *P* results from a reliable belief-forming process.

As regards the nature of reliable belief-forming processes, Goldman says: "For a belief to count as knowledge, I am arguing, it must be caused by a generally reliable process. Exactly how reliable I have not said. Nor do I think this can be answered with precision. The knowledge concept is vague on this dimension. . ." (Goldman 1986, p. 51).

In his recent paper, Adam Morton (2000) proposes a similar thesis from the stand point of an externalist. Hence he supports the conception of knowledge as belief

that results from a reliable process. As regards the explication or definition of 'reliable process', he also says, "There are hard questions about the definition of reliability" (Morton 2000, p. 689). In view of doubts about the definition of 'reliability', it seems to me that Goldman's theory is still in the form of a programme. His theory requires a comprehensive account of counterfactual situations. He also needs to spell out in detail the concept of relevant alternative. Since the relevant alternatives vary from one context to another, it is doubtful whether a precise definition can be formulated. He has also admitted that he does not have a theory of relevance (Goldman 1986, p. 55).

In his paper "Epistemic Folkways and Scientific Epistemology," Goldman tries to identify the concept of justified belief with the concept of belief obtained through the exercise of intellectual virtues (excellences) (Goldman 1995b). To quote Goldman: "Beliefs acquired (or retained) through a chain of 'virtuous' psychological processes qualify as justified; those acquired partly by cognitive 'vices' are derogated as unjustified" (Goldman 1995b, p. 97).

According to him virtuous psychological processes include belief formation based on sight, hearing, memory and reasoning in certain ways, among others. But vices include belief formation based on guesswork, wishful thinking, etc. He explains the virtuous belief forming process by reference to their reliability. Hence, again he refers to the concept of reliability. In this paper Goldman has mentioned some well-known problem cases for standard versions of reliabilism.

(F) Problem Cases for Reliabilism

Let us consider the following cases:

- (7) Suppose a Cartesian demon gives people deceptive visual experiences which generate false beliefs. These beliefs are vision-based and the visual processes involved in these beliefs are similar to our visual processes. As regards justification, Goldman says, "For most epistemic evaluations, this seems sufficient to induce the judgement that the victims' beliefs are justified. Does our account predict this result? Certainly it does" (Goldman 1995b, p. 98).

From this remark of Goldman it follows that the standard versions of reliabilism are not adequate to handle such cases. This is due to the fact that they rely on internal processes for justification, and justification is not considered as a qualifier of truth or true beliefs.

- (8) Consider the clairvoyance example, which has been repeatedly mentioned by Goldman, Bonjour, among many other epistemologists. Suppose a person possess the power of clairvoyance. Suppose he believes that the President of India is in Calcutta, and it happens to be true. Similarly, whenever he believes that the President of India is in Bombay, the president happens to be in Bombay.

Regarding this example, Goldman in his paper on “Reliabilism,” says: “The Clairvoyance example challenges the sufficiency of reliabilism. Suppose a cognitive agent possesses a reliable clairvoyance power, but has no evidence for or against his possessing such a power. Intuitively, his clairvoyantly formed beliefs are unjustified, but reliabilism declares them justified” (Goldman 1992, p. 435). But in his paper on “Epistemic Folkways and Scientific Epistemology,” Goldman (1995a, p. 99) claims that clairvoyantly formed beliefs are non-justified. Hence they are neither justified nor unjustified.

(G) The Nyāya

Now I would like to discuss how the Nyāya would handle the Gettier and the post-Gettier counterexamples as well as the two problem cases for reliabilism.

With respect to the first counterexample of Gettier, the Nyāya philosophers such as Udayana would claim that the conclusion of this inference is false. Therefore, it cannot be a case of knowledge. The belief or the cognition of Smith expressed by the sentence ‘The person who will get the job has ten coins in his pocket’ can be expressed in the following way: ‘The person who will get the job presented under the mode of being identical with Jones has ten coins in his pocket’.

This is due to the fact that the conclusion is derived from the belief that Jones is the person who will get the job, and Jones has ten coins in his pocket. Since Smith got the job and has ten coins in his pockets, the belief of Smith is false. Since this sentence can be used to express different beliefs, we are not simply concerned with the truth of the sentence, but with the belief expressed by this sentence. In this case the belief it expresses is false.

With respect to the second counterexample of Gettier, it is a case of belief, truth and justification, but not a case of justified true belief, where justification is a qualifier of true belief. The belief (or cognition) expressed by the sentence ‘Jones owns a Ford or Brown is in Barcelona’ is true by virtue of the fact that Brown happens to be in Barcelona. Since it is deduced from the premise ‘Jones owns a Ford’ it is in accordance with the rules of logic. If ‘justification’ means ‘being derived from premise(s) by applying the rules of logic’, then it has justification. Hence justification comes from the fact that it is derived from ‘Jones owns a Ford’. Since Jones does not own a Ford, the truth of the conclusion does not come from the premise ‘Jones owns a Ford’. The truth of the conclusion comes from the fact that Brown is in Barcelona and its justification comes from the fact that it is derived from ‘Jones owns a Ford’. Hence justification has nothing to do with its truth. Therefore, justification is not a qualifier of its truth. If the truth of the conclusion were derived from the truth of ‘Brown is in Barcelona’, then it would have been a case of justified true belief. In other words, if ‘Brown is in Barcelona’ were the premise, then the conclusion would have been a case of justified true belief. Hence this counterexample of Gettier lacks justified true belief, although it is true and has justification. This is analogous to the truth of the sentence ‘The man with a red iron

mask is in this room'. This sentence cannot be claimed to be true by virtue of having a man in this room, an iron mask in this room and a red object in this room. Hence from the Nyāya point of view justification is a qualifier of true belief. Here justification means some sort of guarantee for its truth.

As regards the post-Gettier counter example (3), the Nyāya claims that a physical object is not inferred from its look. Our sense-organs are related to the physical object, and the latter is one of the causal conditions of perceptual cognition or belief. Since there are both real barns and barn façades, our sense-organs are related to both. If we know the mode (or the limiter) under which a barn façade is presented, then we can discriminate a real barn from a barn façade. In this example, John has cognised both a real barn and a barn façade. Since he cannot discriminate a real barn from a barn façade, he has not cognised the mode under which a real barn is presented and the mode under which a barn façade is presented. Since John believes that these are barns while some of them are barn façades, his belief cannot be said to be true. Hence it cannot be treated as a counterexample.

As regards (4), the Nyāya would claim that our sense-organs are related to both the ball and its red colour as it is red. Moreover, both the objects and the relations between objects and sense-organs are causal conditions for perceptual cognitions. If the red colour of the ball is presented under the mode of redness which is its limiter, then it would be a case of knowledge. If a person knows redness which determines red colours only, not the reflection due to red light, then he can discriminate a real red colour from the reflection of red colour which is due to illumination of red lights. Hence the Nyāya claims that if the red colour is presented under the mode of redness, then the perceiver would be able to discriminate and his/her cognition would have the status of knowledge. On the contrary, if he/she cannot discriminate, then the truth of the belief that the ball is red lacks justification.

As regards example (5), the Nyāya claims that Jones does not satisfy the criteria for being an *āpta* (authority or trustworthy person). A person is an *āpta* if and only if (a) he/she has a true cognition of what he/she says, (b) he/she selects the appropriate expressions to convey his/her true cognition, (c) he/she is not lying, and (d) his/her sense-organs, which are causal conditions for utterance or inscription, do not suffer from any defect or weakness.

In this case, Jones does not know that he has won a car in a lottery. Hence he ceases to be an *āpta* or a trustworthy person. For this reason his utterance cannot be considered as a source of valid cognition, although the sentence he has uttered is true and the sentence would generate a true cognition in the hearer. Since there is no guarantee or justification for the true cognition generated by his utterance, it does not have the status of knowledge.¹

As regards example (6), the Nyāya claims that if Tom Grabit is presented to me under the mode of a unique property, then I would be able to identify him in every situation. Hence there would be no-relevant alternatives which would defeat my knowledge-claim. If Tom Grabit is cognised under the mode of a unique property

¹ For a more comprehensive discussion on this topic, see Shaw (2000).

which will distinguish him from all other individuals, then there would be guarantee for the truth of the belief that Tom Grabit has removed the book from the library. If there is a guarantee for the truth of this belief, then there cannot be a true defeater. Hence it rules out the possibility of true defeater regress.

As regards example (7) of Goldman, it is neither a case of perception nor is it a case of testimony. It does not come under any sources of valid cognition. It is to be remembered that according to the Nyāya the object of cognition, the sense-contact with the object and the contact with the qualified object of the form a being *F* are causal conditions of a true perceptual cognition. Since these conditions have not been satisfied, this example cannot be treated as a case of true perception. Again, since the demon wants to deceive us, he fails to satisfy the conditions for being an *āpta* or trustworthy person. Hence it cannot be a case of testimony.

With respect to example (8), it may be said from the Nyāya point of view that the reliable clairvoyance power is not a case of perception, including the Yogic perception, or inference, or testimony. Hence it is not derivable from any valid sources of cognition. The beliefs of the agents who have clairvoyant faculty lack justification, although they are true. Hence these beliefs do not have the status of knowledge.

From the above discussion it follows that the Nyāya philosophers have treated justification as a qualifier of true belief, and have emphasised the sources of valid cognition, which will explain why certain true beliefs have justification. Since there is no proposition as distinct from a sentence, beliefs are considered as true or false. Moreover, the Nyāya explains the ability to discriminate an object or a set of objects in terms of the cognition of limiter(s). This is how we can solve some problems of contemporary Western Philosophy.

Belief and Doubt

The Nyāya discussion of belief also would solve some of the unsolved problems of Western Philosophy. The importance of belief has been emphasised very widely in Western Philosophy. It is considered as the central problem of Philosophy. To quote Russell: Belief “is the central problem in the analysis of mind. Believing seems the most ‘mental’ thing we do, the thing most remote from what is done by mere matter. The whole intellectual life consists of beliefs, and of the passage from one belief to another by what is called ‘reasoning’. Beliefs give knowledge and error; they are the vehicles of truth and falsehood. Psychology, theory of knowledge and metaphysics revolve about belief, and on the view we take of belief our philosophical outlook largely depends” (Russell 1921).

Ramsey also claimed that a belief is “a map of neighbouring space by which we steer” (Ramsey 1960, p. 238). So he attributes two characteristics to a belief: it is a *map*, and it is something by which we steer. I would like to claim that the set of beliefs of a person represents his/her form of life. It determines the entire mental life of a person, including emotions, feelings and attitudes.

As regards the category to which belief belongs, there are four views in Western tradition: (1) belief is a faculty of mind; (2) it is a disposition of the believer; (3) it is a conscious occurrence in the mind of the believer; and (4) it is a mental state of the believer's mind. Since I would like to focus on the nature of belief-sentences, in this paper I do not intend to discuss the category to which this phenomenon belongs. However, I consider belief as a mental state of the believer, dispositional or conscious. There are six approaches to the problems of belief-sentences in contemporary Western Philosophy:

- (A) One of the approaches to belief-sentences may be attributed to early Wittgenstein. He says: "It is clear, however, that 'A believes that *p*', 'A has the thought *p*' and 'A says *P*' are of the form '*p*' says *p*'" (Wittgenstein 1961, p. 109).

This approach eliminates belief as an entity from our ontology. Hence it would not be acceptable to those who would consider belief as a new phenomenon which is not reducible to any other fact.

- (B) The second approach reduces a belief to a set of behaviour. This approach has been followed by pragmatists such as James and Dewey, some American realists, and other behaviourists, including Ryle (Russell 1977, pp. 218–219). Since this view is also committed to many dubious assumptions about the nature of mind (or self) or human being, it raises more problems than it solves.
- (C) Another approach is to be found in Frege (1949, p. 87), and this approach has been defended by Church. According to Frege, the content of a belief is a proposition or thought, which is the sense of a sentence. Consider the sentence 'John believes that Shakespeare is the author of *Waverley*'. According to Frege the proposition expressed by the sentence (or subordinate clause) 'Shakespeare is the author of *Waverley*' is the content of his belief and it is the nominatum in this context. This view leads to Platonism and raises some problems related to the sense theory of Frege.²
- (D) According to another approach the content of a belief is a sentence, or belief is a relation between a person and a sentence (Carnap 1956, p. 232). If the content of a belief is a sentence, then we cannot derive 'John believes that die Erde ist rund', from 'John believes that the earth is round'. Since this view rules out the possibility of belief in animals, new born babies and in persons who do not speak or understand any sentence, it may be rejected on this ground.
- (E) According to another view what occurs in a belief is neither an expression nor its sense or proposition, but a vivid conception of an object. Kaplan calls it 'vivid name'. He says: "Our most vivid names can be roughly characterised as those elaborate descriptions containing all we believe about a single person" (Kaplan 1985, p. 363).

As regards the nature of the entity which occurs in the content of a belief, he says: "Many of our beliefs have the form: 'the colour of her hair is –', or 'The song

²For a comprehensive discussion, see (Shaw 1999).

he was singing went –’, where the blanks are filled with images, sensory impressions, or what have you, but certainly not words” (Kaplan 1985, p. 366).

Hence Kaplan has postulated intermediary entities such as images or sensory impressions to give an account of our beliefs. In the context of the Nyāya, I shall discuss how the Nyāya philosophers have avoided the postulation of any intermediary entities.

(F) We come across another approach in the philosophy of Russell. In his *The Problems of Philosophy* (1980, pp. 72–73), the sentence ‘Othello believes that Desdemona loves Cassio’ has been analysed as a four-place relation between Othello, Desdemona, loves and Cassio. It may be presented in the following way: $R - (\text{Othello, Desdemona, loves, Cassio})$.

Since ‘loves’ is on a par with the terms ‘Desdemona’ and ‘Casio’, Russell rejected this analysis as the verb ‘loves’ ceases to function as a relation between the two terms. In his “The Philosophy of Logical Atomism,” he thinks there is a genuine puzzle about the nature of belief. To quote Russell: “This is what constitutes the puzzle about the nature of belief. You will notice that wherever one gets to really close quarters with the theory of error one has the puzzle of how to deal with error without assuming the existence of the non-existent” (Russell 1977, p. 225). By using the techniques of the Nyāya philosophers we shall see how to avoid the postulation of the existence of the non-existent. It is to be noted that the Nyāya philosophers do not postulate intermediary entities such as propositions, or images or concepts as contents of our beliefs, true or false. Moreover, verbs of belief-sentences are not reduced to terms.

As regards the nature of belief, the Nyāya claims that it is a doubt free cognition. Hence it presupposes the Nyāya analysis or conception of doubt, which may also solve some of the problems of Western philosophy or add a new dimension to Western philosophy.

Doubt, according to the Nyāya, is a type of invalid (false) cognition. A dubious cognition can be expressed by the form ‘Is x F or G ?’, where x is the property-possessor, F and G are mutually incompatible properties. Since they are mutually incompatible, one of them may be the absence of the other. As regards the number of alternatives in a dubious cognition such as ‘Is it a stump or a human being?’, there is some difference of opinion among the Nyāya philosophers. But all of them have accepted the thesis that there are at least two mutually incompatible alternatives in a dubious cognition. It is to be noted that a dubious cognition cannot be identified with a question. A question presupposes the cognition of one of the alternatives, but a dubious cognition presupposes the cognition of both the alternatives. Moreover, in a question there is desire to know; but not in the state of doubt, although there may be desire to know afterwards.

From the Nyāya conception of doubt it also follows that there is certainty about the property-possessor in a dubious mental state. The property-possessor may be an object of doubt in another mental state, where it is one of the alternatives. Hence a doubt presupposes certainty or rests on something which is free from doubt. When I doubt the colour of the table in the mental state ‘Is the table brown or red?’ I do not

doubt the existence of the table. Again, when I doubt the existence of the table, I presuppose something else. For example, 'Is there a table or a bed in this room?' Hence there cannot be universal doubt, even if there is doubt about any specific thing or set of specific things. Moreover, there is no dubious mental state without presupposing something certain. Hence the Nyāya concept of doubt rules out universal scepticism. We may doubt almost *anything*, but not *everything*, and every dubious state has some element of certainty.

The Nyāya has classified doubts into four types depending upon the causal conditions of their origin. One of them is due to the observation of some common property or properties of the referents of 'F' and 'G', and the non-observation of any specific or unique property of the referents of 'F' and 'G'. For example, 'Is it a stump or a human being?' The observation of common properties, such as the same or similar height and width, will give rise to the memory-cognitions of the alternatives which are causal conditions of a dubious cognition.

The second type of dubious cognition is due to the observation of an uncommon property. An uncommon property is something which is known to be not present in the known alternatives. For example, 'Is sound eternal or non-eternal?' In this case soundness is known to be not present in eternal objects such as soul, and in non-eternal objects such as a pot. If this type of doubt is expressed in the form 'Is x F or G?', then one of the causal conditions of this type of doubt is that x -ness or the property of being x is not known to be present in the known examples of F or G.

The third type of dubious cognition is due to the understanding of the meanings of the words which have occurred in contradictory or contrary sentences. This type of doubt will arise in those who are not committed to one of the alternatives or who do not have certain cognition of one of the alternatives. For example, 'Is mind physical or spiritual', or 'Is soul eternal or non-eternal?'

The fourth type of doubt is due to the doubt about the truth of a cognition. For example, 'Is the cognition of a chair in this room true?' This doubt would imply doubt about the presence of a chair in this room. In other words, doubt about the truth of a cognition would give rise to the doubt about the content of this cognition. Hence a higher type of doubt would imply a lower type if these doubts are arranged in an hierarchical order. From the Nyāya discussion of doubt it follows that some of the questions of Western philosophers about doubt can also be answered. Hence it can be integrated with the mainstream of Western philosophy.

Now let us demonstrate how the Nyāya philosophers would explain the content of a false belief without postulating non-existent or intensional entities.

Consider the sentence: (i) 'John believes that Shakespeare is the author of *Waverley*'. In the content of this belief there are three major elements, viz., Shakespeare, the author of *Waverley* and the relation of identity which has not been mentioned by the word 'identity'. Shakespeare is the qualificand, the author of *Waverley* is the qualifier, and the relation of identity is the qualification relation. Since these elements are the objects of this belief, they have the property of being the object (*viṣayatā*). In other words, the property of being the object is the relation of a belief mental state to its object. When we say that Shakespeare has the property of being the qualificand, what we mean is that Shakespeare has the role of

qualificand in the content of this belief. Similarly, the author of *Waverley* has the role of qualifier and the relation of identity has the role of qualification relation in the content of this belief. In addition to these elements there are a few more elements in the content of this belief. Since both 'Shakespeare' and 'the author of *Waverley*' have occurred in (i), they are presented under some mode of presentations. In other words, the property of being the qualificand residing in Shakespeare is limited by the property of being Shakespeare and the property of being the qualifier residing in the author of *Waverley* is limited by the property of being the author of *Waverley*. Since identity has not been mentioned, it is not presented under some mode of presentation. These elements are also related to each other in the Nyāya system. It is to be noted that the three types of relations, viz., the property of being the qualificand, the property of being the qualifier and the property of being the qualification relation, are present in any belief, true or false. But in a true belief there is another type of relation which relates the belief to the unified content or fact by virtue of which the sentence which expresses this belief is considered true.

Now let us discuss the nature of the belief state. As a belief is related to its objects, so are objects related to the belief. Let us consider R , S , and T as the property of being the qualificand, the property of being the qualifier and the property of being the qualification relation respectively. The relation of Shakespeare to this belief is the converse of R , the relation of the author of *Waverley* to this belief is the converse of S , and the relation of identity to this belief is the converse of T . These are all properties of John's belief, and they are related to each other in the following way:

- (a) The converse of R is determined by the converse of S .
- (b) The converse of S is determined by the converse of R .
- (c) The converse of S is determined by the converse of T .
- (d) The converse of T is determined by the converse of S .

These relations emphasise the unity of the belief-state. Moreover, the truth of the sentence 'John believes that Shakespeare is the author of *Waverley*' does not depend on the truth of the sentence 'Shakespeare is the author of *Waverley*'. Now the question is, how can the belief-state of John be related to the relation of identity which does not exist between Shakespeare and the author of *Waverley*? If there is no such relation, then the converse of the property of being the qualification relation cannot characterise the belief-state of John. In reply, the Nyāya philosophers claim that the belief state of John is related to an identity relation which is real elsewhere or elsewhen. Hence the belief-state of John is characterised by the converse of the qualification relation.

It is to be noted that, according to the Nyāya, a relation performs two functions. It can be defined in terms of the following way: R is a relation df. $(Ex) (Ey)$ (It is due to R that x appears as the qualificand and y as the qualifier in the cognition xRy), and $(Ex) (Ey)$ (It is due to R that there is a qualified object or fact xRy).

The x and the y of the cognition need not be the same as the x and the y of the fact. If the cognition is true, then the x and the y of the cognition would correspond to the x and the y of the fact. In our above example, the relation of identity is real

elsewhere of elsewhen, to which the belief-state is related. For example, the cogniser is related to relation of identity which holds between John Key and the present Prime Minister of New Zealand. Hence one of the functions of a relation has been satisfied. Again, it is due to this relation of identity that Shakespeare appears as the qualificand and the author of *Waverley* as the qualifier in the belief-state of John. This is how the Nyāya philosophers have avoided the postulation of non-existent entities in the explanation of false beliefs. Since the Nyāya philosophers do not postulate any intermediary entities, such as propositions, or images, or vivid concepts, their explanation is simpler than the explanations of some contemporary philosophers, such as Frege or Kaplan. Moreover, unlike early Russell, the verb in the subordinate clause of a belief sentence has not been reduced to a term. Furthermore, the Nyāya philosophers, in terms of the relational properties of a belief state, would explain the difference between (i) and (ii) John believes that the author of *Waverley* is Shakespeare. Again, the Nyāya technique can be used to explain the following belief-sentences:

- (a) John believes in Shakespeare
- (b) John believes in Pegasus
- (c) John believes that Shakespeare exists
- (d) John believes that Orcutt is a spy
- (e) John believes that (Ex) (x is a spy)
- (f) (Ex) ($x = \text{Orcutt}$ and John believes that Orcutt is a spy)
- (g) John believes that Orcutt is not a spy
- (h) John believes that Orcutt is a spy and Orcutt is not a spy
- (i) Tom believes that John believes that Shakespeare is the author of *Waverley*.

Since the Nyāya philosophers can explain belief-sentences which contain negation, conjunctions, quantifier, or which express higher-order beliefs, they can explain all the types of belief-sentences of a standard language.

Now let us consider Kripke's (1988) puzzle about belief. He claims that co-designative proper names are not interchangeable in belief contexts *salva veritate*. Hence one may assent to 'Cicero was bald' and to 'Tully was not bald', although both 'Cicero' and 'Tully' refer to the same person. Kripke has put forward the following example to substantiate this point. Pierre, a native of France, asserts in French (a) *Londres est jolie*. After moving to London from France he assents to (b) *London is not pretty*.

From this fact Kripke concludes that co-referential terms cannot be substituted for each other without changing the truth-value. From the Nyāya point of view we can say that co-designative terms are interchangeable in belief contexts if they have the same limiter. Suppose Cicero has a unique and an essential property, say F . According to the Nyāya, the meaning of the name 'Cicero' includes both the person referred to by the word 'Cicero' and the limiter F . If 'Tully' also refers to the same person under the same mode of presentation, then both of them have the same meaning. Since we are concerned with belief, we can use any language to describe it. Hence it has nothing to do with assenting to a sentence, which requires mastery over a language, including knowing the meanings of the terms. Even if a person

does not know any language, we can describe his belief state in our language. If we come to know that Pierre believes that *Londres est jolie*, then we can use English to describe the same belief. Hence we can claim that Pierre believes that London is pretty. Therefore, any synonymous expression or sentence can be used to describe the same belief. This is how the Nyāya philosophers would solve the puzzle about belief.

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