ROLE OF LOGICAL POSITIVISM IN EDUCATIONAL UNDERSTANDING

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ABSTRACT

The recent anti speculative trend emerged in the field of philosophy is known as Logical Positivism. Though the similar ideas may be seen in all times and ages, in form of skepticism and dogmatic realism as an anti-speculative tendencies in philosophy. Logical Positivism appears not a system of philosophy. It consists rather in a certain technique- a certain kind of attitude towards philosophical problems. The most striking feature, they exhibit is that they all deny the possibility of philosophy as a speculative discipline. All the characteristics of Logical Positivism developed, are inspired by such ideas from history of empiricism and nourished with the help of Logic and Mathematics, giving rise to firm foundation to science. Here researcher has examined how Logical Positivists were inspired by English empiricist tradition and other anti speculative arguments of others, with comprehensive view on main characteristic features of Vienna Circle and will analyze main philosophical tenets of Logical Positivism with more emphasis on their attempt to develop a significance in the field of education.

Keywords: Positivism, Logical Positivism, Logical Atomism

INTRODUCTION

Wittgenstein’s early work Tractatus Logico-Philosophicus is considered by many scholars to be version of Logical Atomism and hence another immediate ancestor of Logical Positivism. Tractatus articulated a revolutionary conception of philosophy, which molded the future of analytic philosophy. Philosophy, according the conception is categorically distinct from science. Wittgenstein says that there is no hypothesis in philosophy and making a difference from Moore and Russell, he says that philosophy does not describe the most general truths about the universe and nor does it describe relations between abstract entities as Frege thought, further make a shift from British empiricists and the psycho logicians he says it does not describe the workings of the human min or investigate the metaphysical presuppositions of experience and describe them in synthetic a priori propositions as Kant thought. There are no metaphysical truths that can be expressed in propositions, for the only expressible necessities are the vacuous tautologies of logic. Any attempt to express metaphysical truths inevitably results in violation of the bounds of sense. Thus task of philosophy is the activity of logical clarification which executed by the logical analysis of problematic propositions, which will inter alia, expose metaphysical assertions as nonsense. In fact, this conception of philosophy was to be pivotal for both the Cambridge analysts and the Vienna Circle. In Schlick’s opinion it constituted “the decisive turning- point” in philosophy. Following terms are used in this paper
Logical Atomism: the theory that all propositions can be analyzed into simple independent elements of meaning corresponding to elements making up facts about the world. It formed the part of the early thought of Wittgenstein and Bertrand Russell.

Positivism: a philosophical system recognizing only that which can be scientifically verified or which is capable of logical or mathematical proof, and therefore rejecting metaphysics and theism.

Logical Positivism: a philosophical ideology/ a form of positivism developed by Vienna Circle (a philosophical movement)

The major themes of logical positivism which was deeply influenced by Wittgenstein can be seen as

1. The Vienna Circle’s concept about philosophy, different from the traditional view, was derived from the Tractatus. Philosophy totally different from science and is not a cognitive discipline. Carnap says that its positive use is to clarify meaningful concepts and propositions and to lay the foundations of science and mathematics. Traditional philosophical problems are either pseudo-problems or, after due elucidation, empirical. Philosophy is the elucidation of the logical syntax of the language of science.

2. Second, the Circle advocated the demolition of metaphysics. Here they accepted the Tractatus claim that there can be no metaphysical propositions, while rejecting the idea of ineffable metaphysical truths that can only be shown but not said.

3. They embraced the Principle of verification, which derived from discussions with Wittgenstein in 1929-30, and held verifiability to be a criterion of empirical meaningfulness.

4. They aimed to uphold “consistent empiricism,” denying that reason can be a source of knowledge that is both synthetic and a priori. The traditional stumbling blocks for empiricism were truths of logic, arithmetic and geometry, and metaphysics. In their view it was the Tractatus account of logical truth that rendered consistent empiricism possible. But their account of logical truth, unlike Wittgenstein’s, was conventionalist.

5. They adopted the thesis of the unity of science and were committed to a reductionist program of displaying all cognitively significant propositions as deducible from the basic propositions constituting “the given”. The thought that all propositions are truth-functions of elementary propositions was derived from the Tractatus (the thesis of extensionality) Assuming elementary propositions to be verifiable in immediate experience; this gave support to the logical positivists.

OBJECTIVE

To trace the educational traces of Logical Positivism in present context.(especially in the context of attitudes of educators, deciding direction and aims of education, implications for teaching- learning processes, issues for emphasis on curriculum construction, importance for teacher and assessment)

Research Questions

- How can Logical Positivism influence the attitude of educators?
- What is the role of Logical Positivism in deciding directions and aims of education?
- What are the implications of Logical Positivism for Teaching Learning Process?
- How can Logical Positivism play important role in curriculum construction and assessment?

REVIEW OF RELATED LITERATURE

“Logical Positivism” edited by A. J. Ayer is one of the most useful anthologies on the subject in the library of philosophical movements series as it puts together for the first time a large number of pieces together in English. It puts into focus many issues raises by the ‘Vienna Circle’ whose avowed philosophy it was and also includes some other pieces not technically written by persons of the circle.
Ayer in a lucid introduction presents the history of the Logical Positivist movement giving its narrow as well as wide contours. Ayer traces the attack on metaphysics of the positivists to Hume and explains the philosophical views of positivists on what can or cannot be said. He explains how Viennese Positivists were only chiefly interested in the formal and natural sciences. He himself however comments that logical analysts were more indulgent towards metaphysics. Ayer introduces the problems regarding elementary statements and incorrigibility. Ayer succinctly states that the ethical position of Logical Positivists must be seen as a consequence of the Humean position that normative statements are not derivable from descriptive statements.

The first piece in the book is Bertrand Russell’s essay on “Logical Atomism” which opens with a commitment to realism and to logic as fundamental in philosophy. Russell draws attention to the profound influence of language on philosophy and identifies the business of philosophy as essentially that of logical analysis followed by logical synthesis. He discusses on ideal logical language which would avoid contradiction and would have the structure of the world. The outline of the world that he suggests is that of one which consists of a finite or infinite number of entities having relations to each other which could be called an event which occupies a short finite time and space. He explains mind too through compeent events and suggests a mind body identity theory.

Moritz Schlick’s “The Turning Point in Philosophy” translated by David Rynin mentions the anarchy of philosophical opinions in the past and claims that we have now come to be in possession of a method which makes conflicting principles unnecessary. These methods have their origins in Logic, Leibniz saw their beginning, Russell and Frege opened up important stretches and Ludwig Wittgenstein pushed it to the decisive point. Schlick argues that philosophy is not a system of statements. By means of philosophy statements are explained, by means of science they are verified. The latter is concerned with the truth of statements the former with what they actually mean. The final giving of meaning takes place through deeds or acts which constitute philosophical activity.

Through a long careful series of arguments Moritz Schlick in the essay “Positivism and Realism” summarized his discussion by mainly claiming that the justified unassailable nucleus of the positivist tendency seems to be the principle that meaning of every proposition is completely contained within its verification in the given. There is no denial of the external world and there is an empirical realist commitment. However as a consistent empiricist it is understood that denial as well as affirmation of a transcendental world is meaningless. Schlick’s position illustrates the central theme of Logical Positivism in terms of verification principle.

Carl G. Hempel’s “The Empiricist Criterion of Meaning” presents the difficulties and changes in the testability criterion of empirical meaning. The precise version of the verifiability suggested that a sentence had empirical meaning if and only if it is not analytic and follows logically from some finite and logically consistent class of observation sentences. But this criterion excludes universal form sentences which express general laws as they can never be conclusively verified by a finite set of observational data. Hempel points out two other defects one where by the rule of addition to any sentence having no empirical meaning we may add one with empirical meaning and make it satisfy the criterion. This makes the criterion too inclusive. On the other hand, when a sentence “There exists at least one thing that has property P” is denied it takes a universal form (Nothing has property P) which cannot be the conclusively verified. This is overly restrictive. Ayer in his Language, Truth and Logic tries to give a comprehensive criterion of conformability but it also allows too much. Hempel considers the proposal of developing an artificial language but accepts that there are problems with giving correct accounts of dispositional terms and other issue in the analysis of cognitive significance.

METHODOLOGY
Steps of Research

In this study, the problem under investigation is concerned with the ideology of Skepticism. By the course of research and also through review of literature, the nature of the research can be determined
of philosophical nature. To achieve the objective of the research the steps followed by the researcher can be mentioned as below:

- Library Study
- Discussions
- Critical thinking, contemplation and coding

Researcher has tried to find the main philosophical tenets of Logical Positivism and tries to find out there use in field of education. Critical analyses of all ideas enable to find connection and also through the contemplation it was possible how to make is possible to realize in the field of education. Then the whole scheme of argumentation and their logical consequences and critical comments were codified and the multiple phase of sequencing and reexamining of the facts and finding and their logical connections made it possible to understand as useful philosophy for education in present context.

These steps does not execute in a linear phase but in a spiral because there is constant process of studying, discussions and critical assessment and examination and logical sequencing of ideas grasped and contemplation about how to make a theory of education or draw implication of educational practices.

**Findings**

**Educational Implications of Logical Positivism**

Logical Positivism has sketched a new map of knowledge and philosophy was not considered as an organized system of knowledge. They accept mathematics and logic, which are purely analytic and devoid of any matter of fact and also sets up as the paragon of knowledge, the empirical sciences- as the sole avenue to knowledge of world and as the instruments of human welfare. Logical Positivists would admit the existence of knowledge of fact which is too unpretentious to be termed as scientific. This implies it as a commonsense knowledge which all of us pickup in the course of a life time. Logical Positivist has firm belief that there is a great deal of nonfactual, superstitions nonsense mixed up with it.

**Logical Positivism Impact on Attitudes of Educators**

The logical positivism was emerged as a movement in field of philosophy and become very influence ideology due to its scientific temper, hence it seems to be a motivating factor to change and develop new attitudes of persons working in the field of education. It enforces them to change their views and customary believes regarding religion and universal morality and indulge them to think about these issues in education since a major educational agenda is to develop attitudes and regulate behaviors and conservation and promotions of culture.

According to Logical Positivists, religion can exist as conduct, emotion or rituals. It should be encouraged or discouraged according to effect of its practical results and on this basis it has no right to exist in a rational society cannot be burked and will not regard to teach religious doctrines to children.

Morality exists as a system of principles of behavior adopted and preached but not in any way grounded in truth. Logical Positivists would tend to accept the utilitarian theory of morality, with a dislike of absolute standards and fixed principles due to absence of any rational arguments in favor of absolute values or fixed principles.

**Deciding Direction and Aims of Education**

The philosophical tenets of Logical positivism reflect following aims of education:-

1. Education should emphasize upon developing conceptual clarity. The analyses of concepts help students to scrutinize various theories of education.
(2) Developing an ability to make a language analysis so that meaningful and sensible conclusions may be drawn.

(3) To inculcate the scientific attitude among students so that they can logically solve problems of their own.

(4) Equipping students with understanding to find out the meaningfulness of a statement or conclusion. A statement which may not be confirmed or verified empirically or logically is meaningless or nonsensical and should be rejected.

(5) To impart education through the method of language analysis that should be precise enough to avoid any ambiguity and confusion in understanding of the concepts.

(6) Education must structure the knowledge domain of students in such a manner that they become able to judge the meaningfulness of the concepts though directs and indirect methods of verification / confirmation or testing.

Implications for Teaching- Learning Processes
Logical Positivism advocates experienced based enquiry. This position opens various modes of training of mind and body for acquiring knowledge and skills necessary for life and society to progress and sustain. The new task assigned by logical positivism to philosophy draws our attention to the neglected role of language and discarding position of logic in which seemed to be result of erroneous thinking that principles of logic deals only with the ideal thinking process but this is not correct. But in fact, principles of logic are helpful in scanning our thinking. They decide the probable truth of our conclusion, when we adopt inductive process. Thus logical positivism motivates us to see logic as an inherent element in the teaching learning process and an understanding of the logical operations involved in it makes the task of teacher and student more orderly and effective.

Logical Positivism emphasized on verification of language used in educational processes. They assert that language used by educational researcher and practitioner is not always adequate and it tends to distort and twist the gist of subject.

Pedagogy need to be guided by major research approaches in the relevant discipline. e.g. The role of experiment has drastically changed and needs to be reflected in the present pedagogical practices.

Issues for Emphasis for Curriculum Construction
Extracted in form of content of education from Positivist philosophy, It can be said that ideal of education is to be trained to think scientifically for the purpose of uncovering facts and analytically for the purpose of uncovering humbug. Thus it advocates for education to be more nearer to empirical sciences.

It may seem that curriculum based on Logical positivist philosophy will only contain empirically verifiable statements and there shall be no value statements. But this account does not seen carefully. A logical positivistic curriculum design like other designs will have all sorts of statements. It will have statements of instructions which cannot be called verifiable in crude sense. Curriculum design will also have some definitions and other theoretical insights which again require to be understood in a different way at the meta level.

The logical positivist also emphasized the great role of linguistic analysis and its power to dispel confusions. This therapeutic view of philosophical thinking will also be very useful in actual teaching learning processes where learners would be encouraged to clarify basic concepts of which ever discipline they are studying e.g. in teaching of physics a basic clarification of what is meant by space, time, causation, matter etc. will help the student of physics to place his enquiry in a larger matrix of understanding.
Significance for Teacher

The role and responsibilities of teacher is of great importance in process of teaching and facilitating learning of learner. According to Logical Positivists, The teacher must have scientific temper and must be trained to communicate the phenomena in protocol statements. Teacher’s main concern must be to understand phenomena and convey its real and exact sense to his students and society and this is possible only when he uses ostensive definitions of facts and propositions in verifiable or falsifiable conditions which in turn may prove the information useful in sense of sensible and nonsensical. This will enable students to develop logical thinking in such a way that they can prove or generate the situation in which the propositional knowledge, delivered by teacher can be proved or disproved, to be meaningful. He/she must be cautious about the experiential verification of the lecture when he was delivering, if not possible in practice then must be possible in logic.

Assessment plays a key role in judging the outcome of the process of education. This is the only major way through which we fathom the effectiveness of teaching and depth of learning. Generally there are three modes of examination- written, oral and experimental exams.

In written examination, the usual method is setting a question paper. These question papers suffers from various inherent flaws as: n

a. Some questions are framed in such a way that their answer depend on investigation and some call for introspection. Therefore logical positivists will expect that this distinction should not be overlooked.

b. With regard to the answerability, some questions are answerable in principle only not in practice ever. Examiner should avoid these questions like “How many stars are in sky?”

c. The motive of question also compels us to think about the questions for fact finding or mere explanations. Logical Positivist favor to fact finding questions not those who require explanations on the basis of already written or interpretation of working.

d. There are certain structural fallacies in framing up the questions and care must be taken to avoid them. A closed ended question ceases the possibilities of right answers if alternatives are more than given alternatives.

CONCLUSION

The main concern of Logical Positivist was to establish a method of demarcating the meaningful statements of science and ordinary life from the Pseudo-statements of metaphysics. The discipline of education is full of low level generalizations rather than scientifically verified / testable theories, which often mislead to educator and cause great harm to the theory and practice of education. Through the techniques of sciences, we can avoid these generalizations. The use of technique of science to the problems of education needs a teacher should be trained in process of ‘construct validation’ for strong method of theory construction and hence highly reliable.

Suggestions for Future Studies

a. A.J.Ayer’s logical Positivism and its implications for education

b. Logico-Philosophico-Tractatus and its implications for educational understanding

REFERENCES

