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The situation in philosophy in 20th century

- The lot of development took place in modern science during the time of 20th century.
- □ The advance in knowledge has been due to science
- Speculative philosophical theories were not empirically verifiable: impossible to establish their truth or falsity
- In speculative philosophy theories of different thinkers were personal interpretations about reality
- We cannot arrive at the concise domain of knowledge because they are not based on observations. For ex., What is good or evil? What is real? What is truth?
- Early philosophy was the handmaid of theology
- □ Turn of 20th century: philosophy is a handmaid of science

The situation in philosophy in 20th century

- In the 20th century is called of century of logical analysis or language analysis where philosophers turns their attentions to the language in stead of focusing to know the reality. Language is reality
- □ Philosophical problem arises due to the logic of language
- □ They focus on logical structure of language or logical form of language
- The logical structure of the language represents the logical structure of the world
- A structural isomorphism (one-to-one relationship between the structure of the world and the structure of the language)
- A proposition with sense must fulfill a common pictorial relationship with a state of affairs which it represents
- Philosophy is a critique of language; it is a analysis of linguistic expression

Background of Logical Positivism

- Shortly after the end of the first World War, a group of mathematicians, scientists, and philosophers began meeting in Vienna Under the leadership of Mortiz Schlick
- They primary discussed about the implications of recent developments in logic, sciences and including Wittgenstein's *Tractatus*.
- □ They began contemplating about the possibility of a systematic reduction of human knowledge to logical and scientific foundations.
- They emphasized materialism, empiricism, philosophical naturalism and the scientific method.
- They advocated a kind of scientific conception of philosophy. They believe that only knowledge is valid knowledge that is, scientific knowledge

Background of Logical Positivism

- Logical positivism was essential to the development of early analytic philosophy. It was disseminated throughout the European continent and, later, in American universities by the members of the Vienna Circle. A. J. Ayer is considered responsible for the spread of logical positivism to Britain. The term subsequently came to be almost interchangeable with "analytic philosophy" in the first half of the twentieth century. Logical positivism was immensely influential in the philosophy of language and represented the dominant philosophy of science between world War I and the Cold War.
- Logical positivism is perhaps best known for the verifiability criterion of meaning, which asserts that a statement is meaningful if and only if it is empirically verifiable. One intended consequence of the verification criterion is that all non-empirical forms of discourse, including ethics and aesthetics, are not "literally" or "cognitively" meaningful, and so belong to "metaphysics".

Background of Logical Positivism

- □ Logical positivism (later referred to as logical empiricism and also neopositivism) is a philosophy that combines positivism with formal logic.
- The term "logical positivism" itself originated in the Vienna Circle in the 1920s, where Rudolf Carnap, Otto Neurath, etc. divided statements into those which are analytic (true *a priori*, i.e. true before empirical experience) and those which are synthetic (true a posteriori, i.e. verified by sensory experience). German philosopher Immanuel Kant (1724-1804) had made a fourfold distinction between analytic and synthetic statements, and a priori and a posteriori ones, and had declared that there were some synthetic a *priori* statements (everyone agreed on the existence of analytic *a priori* and synthetic *a posteriori* statements, and on the non-existence of analytic *a posteriori* ones); the logical positivists denied the existence of any such synthetic a priori statements and held that all a priori statements are analytic. So, according to the logical positivists, there are only two kinds of statements, analytic and synthetic, with all the first being *a priori* and all the second being *a posteriori*.

- □ They advocated the principle of verification: any statement that is not inherently verifiable treated as nonsense.
- Most notable members of the Vienna Circle were Mortiz Schlick, A.J. Ayer, Rudolf Carnap, Otto Neurath, Friedrich Waismann and Hans Hahn, etc.
- Logical Positivism formally began in 1929 with a publication of a manifesto entitled The Vienna Circle; its Scientific Outlook, written by Carnap, Neurath and Hahn.
- □ Logical Positivism (later also known as Logical Empiricism) is a theory in epistemolgy and logic that developed out of Positivism and the early Analytic Philosophy movement, and which campaigned for a systematic reduction of all human knowledge to logical and scientific foundations. Thus, a statement is meaningful only if it is either purely formal (essentially, mathematics and logic) or capable of empirical verification

This pamphlet gave a brief account of the philosophical position of the group and a review of the problems in the philosophy of mathematics and of the physical and social sciences that they were chiefly concerned to solve

They were influenced by:

- Empiricism of Hume, Comte, Mill and Mach
- Einstein's theory of relativity and Quantum Mechanics.
- Modern developments in formal logic: logical techniques developed by Frege and Russell
- Wittgenstein's Tractatus to which they developed their own unique reading

Two types of meaningful statements:

- Statements that are true or false by virtue of their meaning or logical form: analytic a prior.
- **Truth and falsity determined by experience: synthetic a posterior**
- □ Therefore, meaning of a statement is its method of verification
- □ We know the meaning if we know the condition under which the statement is true or false
- Meaning is understood in terms of verifiability; verifiability is a definite term its means empirically observable
- □ For logical positivists, a proposition is meaningful if it is either analytical or empirical verifiable
- A. Propositions based on formal logic (i.e. tautologies). B. Empirically verifiable statements

Influenced by Hume

- Central to logical positivism was the distinction between analytic and synthetic statements – corresponding to Hume's distinction between relations of ideas and matters of fact.
- According to the logical positivists, a statement is analytic if and only if its truth or falsity is determined solely by the meaning of its constituent terms. 'All bachelors are unmarried men,' for example, was seen as true in virtue of the meaning of the term 'bachelor.' Analytic truths were regarded as both necessary and *a priori*. Their necessity was seen to lie in their tautological nature, a view that the logical positivists took from Ludwig Wittgenstein. Since, on their account, analytic truths could be judged to be true merely by knowing their meaning – without needing to consult the world in any way – they were also regarded as *a priori* truths.

Influenced by Hume

A statement was seen as synthetic, on the other hand, if it is not analytic, and synthetic truths were regarded as both contingent and a posteriori. It was in explaining synthetic statements that the doctrine of verificationism was formulated. According to this doctrine, the meaning of such a statement lies in its method of verification. A statement is meaningful if and only if its truth or falsity can in principle be determined by experience, that is, be derived in some specified way from the truth of one or more observation statements – statements that record the direct result of an observation. This characterization immediately raises two questions. What exactly is the relationship between the statement whose truth-value is to be determined and the observation statements? And what exactly is an observation statement?

- It seems to me that these are restatements of Hume's classification of knowledge into either analytic a priori (relations of ideas) or synthetic a posteriori (matters of fact)
- Matters of fact refer to empirical claims about the world, which are contingent and based on experience. Relations of ideas, on the other hand, involve analytical truths, such as logical and mathematical propositions, which are true by definition and can be known through reason alone.
- Hume argued against the traditional rationalist belief that effect could be logically deduced from cause, and he concluded that nothing could be a priori known about the relation between cause and effect.
- By contrast, a matter of fact, for Hume, is any object or circumstance which has physical existence, such as "the sun will rise tomorrow".

Hume's understanding of knowledge

- According to Hume, there is only one source of knowledge: experience or observation
- Two kinds of propositions: relations of ideas and matters of fact. Relations of ideas refers to analytic claims which can be justified a priori, that is to say, independent of experience and with necessity.
- □ Scientific knowledge physical science
- □ Mathematical or logical knowledge mathematical science
- Relation of Ideas, in the Humean sense, is the type of knowledge that can be characterized as arising out of pure conceptual thought and logical operations (in contrast to a Matter of Fact). For instance, in mathematics: 8 x 10 = 80. Or in Logic: All islands are surrounded by water (by definition).

- □ It's a rejection of metaphysics (abstract truths, nature of existence etc.)
- □ It is a position that holds that the goal of knowledge is simply to describe the phenomena that we experience.
- Positivism is the philosophy of science that information derived from logical and mathematical treatments and reports of sensory experience.
- Positivism holds that society, like the physical world, operates according to general laws. Introspective and intuitive knowledge is rejected.
- Positivism is a philosophical system deeply rooted in science and mathematics. It's based on the view that whatever exists can be verified through experiments, observation, and mathematical/logical proof.
- Logical positivists picked from Ludwig Wittgenstein's early philosophy of language the verifiability principle or criterion of meaningfulness.

- Logical positivism began to form a fairly definite outlook in philosophy about forty years ago. As is well known, it was primarily the influence of Ludwig Wittgenstein and Rudolf Carnap that initiated the early phase of this — then new and radical — departure from the traditional ways of philosophizing.
- Positivism refers to a belief that only those things that can be empirically detected are real. As an extension of this, logical positivism claims that only statements that are either empirical or purely logical have any meaning. As such, logical positivism, also called logical empiricism, would claim that even attempting to discuss something non-empirical and non-logical is pointless.
- Philosophy should aim to the same sort of rigor as science. Philosophy should provide strict criteria for judging sentences true, false and meaningless, and this judgment should be made by the use of formal logic coupled with empirical experience.
- Some of the key features of positivism include: Empiricism The idea that all knowledge must be verifiable through empirical observation.

- For logical positivist a statement is meaningful only if it is either purely formal (essentially, mathematics and logic) or capable of empirical verification. This theory of knowledge asserted that only statements verifiable through direct observation or logical proof are meaningful in terms of conveying truth value, information or factual content
- The opposition to all Metaphysics, especially ontology (the study of reality and the nature of being), not as necessarily wrong but as having no meaning.
- □ The rejection of synthetic a priori propositions (e.g. "All bachelors are happy"), which are, by their nature, unverifiable (as opposed to analytic statements, which are true simply by virtue of their meanings e.g. "All bachelors are unmarried").
- The concept "equal to 12" is not contained within the concept "7 + 5"; and the concept "straight line" is not contained within the concept "the shortest distance between two points".

- □ The rule which determines the literal significance of language is the criterion.
- □ Assert that meaning of a proposition is its method of verification
- Verification is the criterion by which we test whether a sentence expresses a genuine proposition about a matter of fact
- All meaningful statements including the most abstract scientific hypothesis can be ultimately analyzed into these elementary propositions which stand for observable events.
- A sentence is factually significant to a given person if, and only if, he knows how to verify the proposition which it purports to express – that is, if he knows what observations would lead him, under certain condition, to accept the proposition as being true or reject it as being false.
- By this verifiability principle, only statements verifiable either by their analytical or by empiricism were cognitively meaningful. Metaphysics as well as much of ethics failed this criterion, and so were found cognitively meaningless.

- This theory of knowledge asserted that only statements verifiable through direct observation or logical proof are meaningful in terms of conveying truth value, information or factual content
- Analytic: propositions which define meanings of words, we don't have to check whether they're true using our experience, as they just give us information about what words mean. A dictionary is full of analytic statements. They're true or false depending on whether the words in them actually mean what's suggested... "a kg is a unit of mass" is true, "pigs are flying insects" is false, but both are analytic statements! The logical positivists chose to include some other types of statement in this group, like tautologies [statements which say the same things twice- ice is icey] & mathematical statements like 2x2=4.
- □ Synthetic: give information about reality, rather than just defining our use of language, like "it's raining today"

- Statements can be verified with a posteriori [synthetic statements] or a priori [analytic statements] knowledge. Those verified by a priori knowledge are trivial in that the add nothing to our understanding of the world. The most meaningful statements are synthetic
- □ Statements that transcend the limits of all possible sense experience have no literal significance
- □ The metaphysicians produce sentences which fail to conform the conditions under which a sentence can be literally significant
- All about talk about God, transcendent entities, substance, destiny of man, meaning of human life, goodness, etc., are metaphysical.
- □ They pretend to be cognitive.
- □ God will punish you if you steal money from me
- □ Your father will punish you if you steal money from me
- □ Logical positivist would say they seem to be cognitive while they are not. They might have emotive or poetic value but they are literal nonsense.

- If a statement does not represent a fact in the world is nonsensical because they adopt the method of verifiability through which we should know whether a sentence expresses a genuine proposition about a matter of fact. We should know whether a particular statement is verifiable by adopting certain the methods.
- □ For instance, there is no life in the moon or there is no water in the moon. This is meaningful statement of logical positivism. Though at present we make it possible that we have gone to moon. If we make the same statement about the Saturn. The planet we have never been successful in reaching to it. when we make a statement, there is no water in Saturn.
- This is a meaningful statement because this can be verified or I know the method by means of which it can be verified. For that, I have to go the Satrun and observe it.

- But if I make statements like God exists, there is absolute. God is absolute. These statements are meaningless because we don't know the method by means of which they can be verified. Since we don't know the method of the verification, therefore they are treated as nonsensical
- All meaningful statements including the most abstract scientific hypothesis can be ultimately analyzed into these elementary propositions which stand for observable events. This is what the logical analysis plays significant role.
- □ They adopted on the methodology of language analysis and also the principle of verifiability
- □ If we can't state the conditions under which our statement would be true and false, our statement is meaningless.
- A J Ayer agreed that in order for any statement to be meaningful, it has to be in principle verifiable using empirical methods.

- Does metaphysics lack meaning? This question might come as a shock to many philosophers, particularly theologians, but others will give an emphatic "yes" in response. Most notably the logical positivists, and among them the most vocal being Moritz Schlick (1882-1936) and Rudolf Carnap (1891-1970). According to them, if a thing is not empirically verifiable, it simply has no meaning.
- Carnap says, "Whether or not these questions can be answered, it is at any rate unnecessary to worry about them." Essentially, all questions that cannot be answered scientifically are a waste of time, no more important than trying to determine how many angels can dance on a pin head or wondering wh unicorns are hollow
- Carnap defines "metaphysics" as "the field of alleged knowledge of the essence of things which transcends the realm of empirically founded, inductive science." In simpler terms, metaphysics discusses things in the world which cannot be analyzed through our senses or with the scientific method. 22

- Metaphysics may include discussion of universals as actual entities, the Platonic Ideas, Kant's "thing in itself" or any other suggested theory that is mere speculation and can never be independently verified.
- Metaphysics would not include such things as the speculation about quantum particles or undiscovered celestial objects. While these things may not have been directly observed (yet), their existence is hypothesized on the basis of current scientific knowledge and not from any source outside of the realm of math or logic. It remains likely that, should such things exist, they will one day be discovered through scientific means.
- Carnap talks about "the impossibility of any metaphysics which tries to draw inferences from experience to something transcendent which lies beyond experience and is not itself experienceable"

- This rules out talking about God, amongst other things, because they believed that we can't show statements like "God created the world" to be true or false using our senses
- A J Ayer wrote a very influential book in 1936 called Language, Truth & Logic and in it he set out the main principles of Logical Positivism. He took the ideas of both Wittgenstein & the Vienna Circle and attempted to set down rules by which language can be judged to establish whether it's meaningful or not.
- A.J. Ayer has attended some meetings of logical positivism in Vienna Circle. Ayer has introduced the logical positivism movement to English speaking countries. His contribution is phenomenal.
- A sentence is factually significant to a given person if, and only if, he knows how to verify the proposition which it purports to express that is, if he knows what observations would lead him, under certain condition, to accept the proposition as being true or reject it as being false.

■ Ayer did distinguish between strong and weak verification, however. Strong verification applies to anything that can be verified conclusively by observation and experience, where weak observation can be shown to be probable by observation and experience, or where we can show we know how to prove it with experience- he said we should use it in the weak sense, because for example, "all human beings are mortal"- we couldn't verify this without killing everyone, but we can verify it through probability thanks to observation & experience.



- Practical : Observations are possible in practice in order to confirm whether a proposition is true or false
- In Principle: but there are some statements which are not verifiable easily through practical. But they are in principles can be verifiable. I know if certain conditions are met then they can be verifiable.
 - Propositions for which we do not have a practical means of verification may still be meaningful if we can theoretically verify them
- Strong: if an only if, its truth could be conclusively established in experience
- Weak verification: it is possible for experience to render it probable. There is no strong conclusive verifiability asserted here
 - For ex., all men are mortal and bodies expand when heated. Such general propositions of law are designed to cover a infinite number of cases: hence cannot be verified. When I utter a statement all men are mortal, we have to verify all men who born and die and yet to be born.

- And yet, "no proposition, other than a tautology, can possibly be anything more than a probable hypothesis". Thus, all are open to weak verification.
- Strong verification refers to statements which are directly verifiable, that is, a statement can be shown to be correct by way of empirical observation. For example, 'There are human beings on Earth.' Weak verification refers to statements which are not directly verifiable, for example 'Yesterday was a Monday'. The statement could be said to be weakly verified if empirical observation can render it highly probable.

What exactly is the nature of historical knowledge. Is it possible to know the past? Based on these two types of verification, I suppose we can say that historical knowledge is a matter of weak verification.

Rejection of Metaphysics

Nowadays the logical positivists are best known for verificationism, the view that the meaning of a proposition is its method of verification (the 'principle of verification'), and that only those propositions are 'cognitively meaningful' which are capable of being verified or falsified (the verificationist ' criterion of meaningfulness'). On the basis of this criterion, they condemned metaphysics as meaningless, because it is neither *a posteriori* – like empirical science – nor analytic – like logic and mathematics. Metaphysical pronouncements are vacuous: they neither make statements of facts that can ultimately be verified by sensory experience, nor do they explicate the meaning of the words or propositions.

Logical Positivism: An Assessment

- British philosopher A.J. Ayer presented many of the central doctrines of the positivist movement in his 1936 book, *Language, Truth, and Logic*. Ayer's polemical writing tried to show how the principle of verification could be used as a tool for the elimination of nonsense of every sort
- 1. They were influenced by developments of sciences or they tried to develop a scientific, scientific conception of philosophy and that connection a unified science where all knowledge can be reduced to certain propositions which can be directly observable
- 2. Rejection of metaphysics
- 3. Principle of verifiability

Or

- 1. The impact of scientific developments in philosophy
- 2. Philosophical Logical analysis: the logical rigour
- 3. They attempt to make philosophy scientific