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For non-scientist-philosophers, philosophy of relativity is synonymous with the philosophy of Einstein, or with the philosophy of Modern Science. But it will be interesting to note that in modern physics there are two schools with different epistemological approach to science - School of Einstein and the school of Niels Bohr. Bohr's approach is positivistic while Einstein's is not. "Strangely enough the positivistic conception of physics had been ~~time~~ stimulated by Einstein's pioneer work in the theory of relativity... but he was not ready to admit that one must abandon the goal of describing physical reality and remain ~~only~~ content only with the combination of observations". (Einstein - His Life and Time by P. P. Frank (1949) p. 259). Einstein's opposition to positivistic approach puzzled

many, but there it is.

The author of this article has rightly stated on p. 13 that

"Both doctrines stress the relativity of stand-points in examining the object or its attributes"

and all through the article this theme is elaborated.

But according to Syadvad (as reported by the author on p. 13) "It is impossible for the finite mind to have knowledge of complete truth and therefore relative truth itself is complete knowledge for him;" while this is not so according to Einstein. Having recognised the relativity of standpoints but having full faith in the existence of an absolute world-condition which the scientist wishes to describe, Einstein devised a language which would be commonly used by all observers to describe the same world-condition.

And he was quite logical in holding such a belief in the existence of reality as it is thought and not as it is observed, because, as the author has pointed out on p. 14, according to Radhakrishnan, the theory of relativity cannot be logically sustained without the hypothesis of an absolute.

This brings us to the famous controversy between Einstein and Bohr. The author of this article has quoted Bohr in the last para of his article. But this quotation is from an argument by Bohr against Einstein's philosophy. According to Einstein, we are only spectators in the great drama of existence and it is our endeavour to describe unequivocally the acts of this drama. According to Bohr, we are both spectators and actors in the sense that

our very act of observation influences the drama of existence. The phenomena of the quantum world are so delicate and fine that our instruments of observation would interfere with the phenomena during our very act of observation and thus we would be observing the phenomena as disturbed by our observation. In this sense Bohr describes us as both spectators and actors. Against this Einstein believes that our instruments of observation may not be sharp enough to-day, but he has faith ~~in~~ that some day these instruments will be made sharp enough so as not to disturb the observation of the delicate quantum phenomena. But then Bohr argues that

the mathematics, which the modern quantum theory is using, actually puts a limit to the fineness of our instruments of observation and so the controversy continues.

It should however be noted that Bohr's ideas cannot be regarded as being on the lines of Syadvad ~~for the following~~ because of the following basic difference between the two:

According to Syadvad: There is no uncertainty whatsoever about the various judgements by different observers. (This article p. 9). But Bohr's ideas are pivotted round an uncertainty principle introduced in modern science by the basic limitation in the fineness of our

instruments of observation.

This, in brief, will indicate
the position of the two principal
schools of scientific philosophy
vis-a-vis, Syadvad.

PC Vaidya

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