The Logic of Historical Research

; (Address by Dr. N.R.Waradpande)

प्रदीप: सर्वविद्यानांमुपाय: सर्वकर्मणाम् ।
आश्रय: सर्वधर्माणा शश्वदान्वीक्षिकी मता । ।

Perception aided by Logic is the abiding light of all sciences, the instrument of all actions,and the basis of all righteousness

The Logic of Historical research is in no way different from the logic of any other empirical science.

Logic is traditionally divided in to two branches(1) Deductive and(2) Inductive, Deductive Logic explains in which cases proposition A implies proposition B. The cases in which it does not ,are classified under fallacies.

Pure Mathematics is wholly deductive.

Deductive Logic tells us whether A implies B but it does not and can not tell us whether A is true or false If A is true B is true But for all we know both A and B may be false.

For finding out whether A is true we have to use Inductive Logic, True is defined as that which is perceptually verified. For verifying anything perceptually we should be able to perceive it or its effects.

Before proceeding to verify A we use Deductive Logic to see what other propos_sitions must be true if A is true For example if it is true that water from a particular well causes cholera, it must be true that that water contains cholera germs. We then use our microscope to see whether that water contains cholera germs. If the germs are seen it verifies the hypothesis that the water causes cholera.

Data for all empirical sciences come from perception,.The data for history are ancient writings, ancient human constructions and their ruins. Historical research consists of drawing logical conclusions from these data about past events.

We must clearly distinguish between historical facts and historical theories.,Historical facts are based on coherent records contemporary with the events-regarded as facts.. Historical theories are ideas postulated for explaining available facts. Theories do not claim the status of fact.

Babar's invasion is a fact, the Aryan invasion is a theory.

In drawing conclusions from ancient writings we have to establish their authenticity as history.For this we must be sure whether the author himself claims to write about events that actually occurred or he was out to write a work of art. On this criterion inscriptions are more reliable than books because books are not written with the sole motive of reporting facts.

After fixing authenticity we must ascertain(1) how near the event was the author in time and space(2) how his report agrees with other such reports.

In case there is disagreement, the following maxims decide who is to be believed(1) the author who was nearest to the event (2)the author who has more internal consistency and(3) the author whose account is more probable ..

Some historians have used logically indefensible criteria for deciding which accounts are more trustworthy. Jadunatha Sarkar for example goes by the maxim

that Persian records are more reliable than Marathi records.The reason generally given for this is that the Persian records systematically give dates and the names of the sender and the addresse of the letter. This is very often missing in Marathi letters.

These criteria are quite irrelevant for deciding which records are trustworthy. It does not follow that a writer who dates his letters and mentions his own address as well as that of the addressee ,does not intend to lie. The statements made in court fulfill all the requirements of procedure but the disputing sides contradict each other and 50% of the statements made in court must be not only wrong but deliberate lies.. Jadunath Sarkar disbelieves the Shivabharata even when it gives the surname of Shivaji's queen as Mohite and says "we know that it was Shirke". Most probably he knew this from Persian chronicles. It is absurd to claim that the court biographer of Shivaji did not know the name of his queen and did not care to find it out even though he knew that Shivaji himself will read what he has written. The Persian chroniclers on the other hand stood in no danger of being caught by their masters for their inaccuracy on this point. .

Ancient writings about ancient historical events are very rarely available.Here we have to draw conclusions from ruins. The authenticity of ruins is determined by the same criteria we have laid down for writings.

The conclusions drawn from ruins are of the nature of theories. They are called hypotheses when they are less general

The theories and hypotheses must fulfill the following conditions:-

(1) Hypotheses should be verifiable. Rhozney's theroy that the Mohenjodaro script is the precursor of the Hittite script is verifiable because the Hittite inscription is available for comparison but the theory that they are in a Dravidian language and a Dravidian script is not verifiable because no ancient Dravidian language of the accepted date of Mohenjodaro has been found.

(2) Theories must be verifiable on the basis of fact and not on the basis of another theory. The Dravidian language is the product of a theory that the South Indian languages have an origin different form that of the North Indian. This original language is to be called Dravidian. So the theory that the language of Mohenjodaro is Dravidian rests on another theory that there was such a language

(3) The hypothesis that the descriptions of the *astras* in the Ramayana and the Mahabharata are not poetic fancies but reports of facts is not verifiable, No such *astra* is known to
modern science.The notion that the ancients had a science different from and superior to modern science can not explain how this science disappeared. The probability of such a miraculous science disappearing without leaving a trace is very thin.. The only example of ancient science disapearing is the iron pollar of Delhi,Presumptions of probability are therefore against the astras being anything but creatures of fancy,

(4)Hypothesis must be designed to explain facts, and where facts can explain, imaginary entities should not be postulated. The following is an example of the violation of this principle

(5) A hypothesis must not be postulated for justifying another hypothesis. For example it is maintained that all the astronomical phenomena mentioned in the

Mahabharata are consistent and we can write a diary of the war.. When we find that the descriptions are not consistent we postulate a hypothesis that the war was not fought every day but there were off days in between and then take as many off days on as many occasions as are necessary for making the descriptions consistent, The hypothesis about holidays is soley designed to justify the former hypothesis. When this second hypothesis fails we erect a third hypothesis that. the different descriptions are based on different *panghangas* with different names for months and *tithis* ,.We can prolong this chain of a*d hoc* hypotheses *ad infinitum* and remain for ever away from the truth

(6)The hypothesis must be most probable. Ruins dated to 3000 B.C. have been found in Mohejodaro. Now we have to theorize about who were the people living there. The following facts are crucial for such a theorization

(i) We have the Vedas which are traditionally stated to have been edited by Vyasa around this period. The Western view that the Vedas are not more ancient than 1000 B.C. is not only not unanimously accepted even in the West but also, the very propounder of this view Max Muller sometimes says that the date he mentions is a lower limit..

The following is an example of the violation of the principle of probability as well as the Occam's razor

Writing was not known in the Vedic days, The Vedas are posterior to the Indus civilization, The Indus civilization knew writing. The Indans forgot the art of writing after the flourishing of the Indus civilization (T Burrow)

Probability would require that the period of scriptlessness is anterior to the period of writing.The hypothesis of forgetting is solely advanced for protecting the first hypothesis that the Vedas are subsequent to Mohenjodaro.The hypothesis is not more probable than the hypothesis that the Vedics knew writing.

, (ii)The Vedas contain unmistakable references showing that those who composed the Vedic verses were living in the Indus region. The most probable hypothesis therefore is that the Mohenjodaro ruins are ruins of a Vedic settlement.

(5)The theory must entail minimum of change in what is generally accepted on other grounds because every such ascceptance is based on some evidence and has some probability, The probability of all of them taken together is the addition of these probabilities, Any hypothesis which requires rejection of all these is not likely to have a probability ovewhelmingly larger than this,

The hypothesis that Shankaracharya flourished in the B.C.requires a change of a thousand years in the date of Buddha accepted by Buddist countries like China, Shrilanka and Tibet,it requires change in the date of Alexander and it entails disbelief in the existing Gupta inscriptions some of which are dated. Such a drastic view has little likelihood of being true.

The Aryan invasion theory violates almost every canon of Logic.

The Vedic deities in the Asia minor inscription are not taken from the Vedas, both the Vedas and the inscription have taken them from a common source more ancient than both. (Macdonell)

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The Aryan invasion theory violates almost every canon of Logic.
(i)The existence of Aryans is unverifiable because the concept of a race implies the existence of 2^{200} races, a number larger than the total number of human beings who ever lived.The Aryans as a linguistic group is not more verifiable because there are as many ways of reconstructing the Indo European language. the supposed

language of the Aryans, as there are writers on the subject and the placement of the Aryans on that basis ranges all the way from Scadinavia to Aryavarta.

(ii)The theory has no probability because there is no agreed fact on which it is based, the bases of the theory are all imaginary.

(4)   (iii)The theory violates Occam's razor because none of its postulates are *meen* *fated* *by* *fact*.

(5)

(6) The Occam's razor requires that a minimum number of hypotheses should explain the facts, the hypotheses should therefore not be multiplied unnecessarily.

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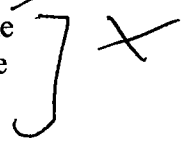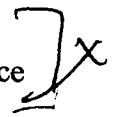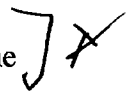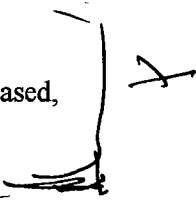
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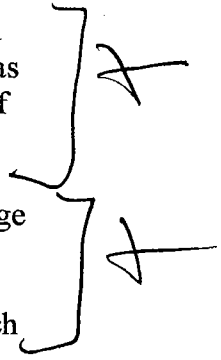The following is an example of the violation of the principle of probability as well as the Occam's razor

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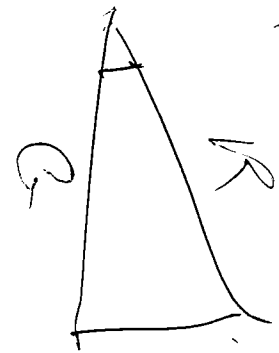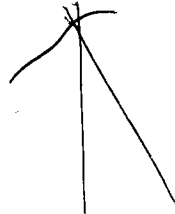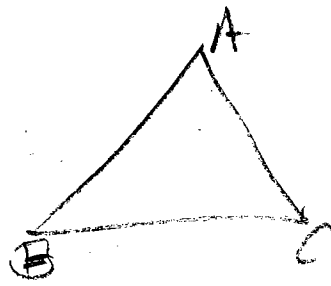
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(iii)The theory violates Occam's razor because none of its postulates are in any way necessary for throwing light on ancient history They have merely produced a useless baggage of wild imagination that has hindered our understanding of the past,