1. Introduction

A historian when makes a statements about Napolean simply means that there are books in the libraries which make statements similar to his own. This means there is no past, there are only sources. In a machine everything that occurs is the direct consequence of what is happened before. Each event is caused by those that have come before and is, in turn the cause of subsequent events. Thus laws of nature appear to be deterministic, i.e. natural phenomena are an unbroken sequence of cause and effect.

Based on the Newtonian picture of the universe French mathematician and astronomer Marquis Pierre Simon de Laplace (1749-1827), describe the classical and contemporary concept of rigid determinism as follows. We ought then to regard the present state of the universe as the effect of its antecedent state and the cause of the state that is to follow. An intelligence knowing, at any given instant of time, all forces acting in nature, as well as the momentary position of all things of which the universe consists, would be able to comprehend the motions of the largest bodies of the world and those of the smallest atoms in one single formula, provided it were sufficiently powerful to subject all data to analysis, to it, nothing to be uncertain, both future and past would be present before its age.

The Laplacian picture of world reflects that the meaning of determinism is calculability; causality resides in functional relations (to subject all data to analysis). However one important property of a causal world must be considered here (though Laplace explicitly did not explain or indicate it). That the super intelligence can know about all the forces ‘at one instant of time’, if not, they remain unchanged in their nature of all time. However if the universe does actually run inexorably in a rigidly deterministic manner through all of the past and future time, it does so whether or not an intelligence knows about it, for in the universe of Laplace this knowledge exerts no influence. Laplace’s determinism is essentially based on the Newtonian theory that we can know all the past and future of the motion of a particle by knowing the present position and momentum of the particle.

However Heisenberg's uncertainty principle says that a precise knowledge, attained simultaneously, of both position and momentum of a particle is impossible. Thus at one stroke, Laplacian determinism is destroyed.

Russell, All philosophers, of every school, imagine that the causation is one of the fundamental axioms of science, yet, oddly enough, in advanced sciences such as gravitational astronomy, the word “cause” never occurs the law of causality. I believe, like much that passes among philosophers; i.e. a relic of a bygone age, surviving, like the monarchy, only because it is erroneously supposed to do no harm. This statement goes too far in its implication that causality is for science, “a relic of a by gone age.” According to Russell causal relations for events have been vanished from science. A scientific formula is just a mathematical functional relation among different variables. They represent no causal relation.

So classical determinism must be abandoned. Now the question is that what new concept of determinism, causality modern science gifts us. History or historical geography is essentially related to the concept of past, present and future and spatial distribution of events in time. Howzthe new concept of 'history' or future affects the data analysis' or more precisely speaking what do we understand by data, analysis, interpretation. Do we need a changing of our view of discussion history or historical geography?

Newton and his contemporaries developed the concept, that causality is inherent in the nature of the physical world itself. Actually the universal Renaissance genius Leonardo da Vinci (1452-1519) long before Newton expressed it well, he wrote, “nature is constrained by the rational order of her law which lives infused is her.”
Immanuel Kant, who was three years old when Newton died, was strongly influenced by Newtonian science. He wrote "All changes happen according to a law of connection but cause and effect". This defines causality clearly as a relation but cause and effect. Kant raised the principle of causality to the heights of the a priori, asserting that causality is a logically necessary precondition for all rational thought and therefore in no need of support by factual evidence. He thus defines causality. "Everything that happens presupposes something from which it follows according to a rule". The great German philosophers after Kant was Fredrich Hegel (1770-1831), defines causality in a theological sense; events are caused, not by circumstances in the past, but by a striving toward future goals. However all these contemporary philosophical conception of causality involve in various ways the idea of a mystical nexus whereby the cause bring the effect into being.

American physicist Robert Griffith in 1984 introduced a novel, simple and fruitful idea that history is a sequence of properties occurring at successive instant of time. Each property expresses the fact that the value of some physical quantity is in some region at some instant of time, and the history merely lists them, the choice of the physical quantities, regions of values, and the instant of time being more or less arbitrary. A history, compared to a single property, has a much greater potential to describe what goes on. In other word we may say that a history is to an isolated property what a film is to a snapshot.

Griffiths histories may source as a language to describe all of physics, a kind of universal language that allows us to speak of all physical events without exception.

But the question arises what determine the history or how history determine the present. As classical causality principle, determinism, history, world picture all were based on the influence of natural philosophy as established by Newtonian physics. Now it is a well known fact that quantum physics has incorporated new conception about all the above matters. Which are in direct conflict with classical conceptions? There fore a through revision of the thoughts about those matters is essential to reconstruct our perspective to discuss any discipline likes history, Geography, philosophy, psychology etc.

Hawking say that; "Quantum physics might sum to undermine the idea that nature is governed by laws, but that is not the case. Instil it leads us to accept a new form of determinism, given the state of a system at some time, the laws of nature determine the probabilities, of various futures and pasts rather than determining the future and past with certainty". The origin of the probabilistic determinism is due to a fundamental randomness in nature. The famous physicist Werner Heisenberg coded this randomness in his celebrated uncertainty principle. This principle is in the heart of quantum physics. Though this principle does not give any observable difference in our macroscopic world and common day experience but it has a crucial influence to philosophy. To our understanding of reality, our determinism, which are far reaching effects. In classical determinism based on the knowledge of present we can determine a complete picture of past and a complete picture of the present, i.e. world has a definite past and a definite future. But quantum mechanically speaking we have a set of possible pasts and a set of possible futures. Not only that quantum randomness of nature says that observations you make on a system in the present affects its past.

Famous physicist John Wheeler discuss seven thought experiments which reflects the basic nature of quantum version of determinism. He comes to the conclusion that the past does not exist independently of what we choose to do in the present, i.e past has no existence if it is not recorded in the present, or what happens in the past is decided by what we do in the present. This is what is called retroaction. We immediately conclude that no phenomenon is a phenomenon until - by observation or by some combination of theory and observation - it is an observed phenomenon.

Such apparently - mysterious features of quantum physics raise question against classical thoughts of fundamental interests in epistemology of all disciplines. These a very fundamental concepts and principles of quantum physics cannot be directly applicable to history or geography. But fortunately due to Feynman, the scientist of greatest intuitive power of modern generation after Einstein we are gifted by a principle though formulated specially for physics, but can be used as a model principle to understand subjects of social sciences, without knowing details of quantum physics.

The principle is very clear in its statement:-

a) No event has a definite and only one history.
b) Every event has infinite number of possible histories.
c) Every event can be thought as "sum over all possible histories", i.e. histories are alternatives.

Historical geography is "more properly concerned with period and place than with time and space". In this sense historical geography is much the same with the Marxist view of history as specific to particular places. According to Marx, historical analysis involves reconstruction of the system of material production and productive relations in term of their tensions, antagonisms and contradiction in each area promoting change. Marxist conception of history call for a marriage between the empirical and theoretical modes of analysis. There for historical geography gets more cemented base as long as we can relate the Marxist interpretation of history, at least in principle, to historical geography. The humanistic way of Marxist theory also reflect the underlying relation between history and historical geography. Long ago Marx rejected the view of history as an external force just as geographers are now rejecting space as an autonomous realm. In other ward history and historical geography are the outcome of the activity of man pursuing his ends.

Harris (1978, p.134) wrote- 'some of the historical geographers' most central predictions. So widely disparaged by the spatial analysts of the 1960. Suddenly have a large geographical constituency. To be sure, the routes of convergence are quite different. The humanists have not discovered historical geography so much as
phenomenology, structuralism, Marxism, or even theology. But there is now a wide awareness of the impossibility of separating facts, values, and of the importance of contextual studies.

Also Harris pointed out that "There is no useful disciplinary line separating present from past, space from time". Clearly Harris feels a crisis for historical geography to be a consistent discipline. I think this is nothing but the feeling of the necessity of a thoroughly revised and reconstructed version of historical geography. More precisely this arguments reflect the necessity of a principle to formulate a proper historical geography as a scientific subject. As we know that the main obstacles to understand and appreciate the modern and new concepts of reality common sense and contemporary ideas. These must be re-constructed according to the new ideas in other sciences like physics. And I think Feynman's principle of 'Sum of histories' or 'Alternative histories' can be served as a very good, simple, elegant and more or less complete model to formulate a powerful principle for the study and development of historical geography and hence to incorporate the interdisciplinary consequences.

As done in its original form, the each point of a particular history an event there associate a phase, a dimension and when we some over all histories the opposite phases and dimensions cancel each other to give a observable history or path. This very conception can be generalised to historical geography also, provided we need proper observation to find out the phase factor which can be associated to each point of history. We also need a proper dimensionality that can be used as the substratum for the history to take places.

References