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GREATNESS OF PAUL SAMUELSON

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The master –economist must possess a rare combination of gifts. He must be a mathematician, historian, statesman, philosopher … He must be purposeful and disinterested, as aloof and incorruptible as an artist; yet sometimes as near the earth as a politician"

This tribute was given to Alfred Marshall by his equally illustrious student John Maynard Keynes. The former became the father of modern microeconomics and the latter that of modern macroeconomics. When we think of Paul Anthony Samuelson, we wonder whether the same tribute is not appropriate to him. Samuelson's student Robert Solow describes him as one who is "celebrated for the breadth and versatility of his contributions to economic theory and for his ability to alternate between abstract analysis and the day to day matters of national economic policy". He is responsible for fundamental advances in the theory of consumer behavior, capital and interest, international trade .public finance, welfare economics, the pure theory of economic policy, fiscal and monetary policy. His book 'ECONOMICS' is the standard elementary textbook in economics in many countries ,sold more than 4 million copies in 40 languages. When in 1970 Nobel Prize awarded for him was announced Samuelsson joked, 'they don't give Nobel Prize for textbooks. "More than anything else he, in the words of Milton Friedman, "is a mathematical economist who has helped to reshape and improve the theoretical foundations of economics".

His influential and widely read works have raised the level of scientific analysis in economic theory.Samuelson always emphasized that economics to be a realistic science should make use of more and more of mathematics. Writing on "economic theory and mathematics – an appraisal",
Samuelson gives an allusion to Willard Gibbs, a well known physical chemist who crisply remarked that 'Mathematics is a language'.Samuelsonson says that he would go one step further and say that he would drop out 'a' and say that Mathematics is language. Such is the passion for Mathematics. He recalls an incident when his preceptor Schumpeter has to disregard the advice of Marshall and take to econometrics in all seriousness.

It is difficult to categorize Samuelson as one on the side of micro or macro economics, static or dynamic analysis, general or partial equilibrium analysis, inductive or deductive methodology. He is a versatile all-rounder with notable contribution in every field. His own Revealed Preference is "Mathematical economics"! applying deductive logic Samuelson however showed his exceptional ability for induction also in formulating his consumption theory on the basis of observed market behavior and came to be called as "Behaviorist Ordinalist".He redeemed it from the psychological, introspective basis, freeing it from any vestigial traces of the utility concept, calling it the end of marginal utility. "Choice reveals preference" - was his basis. Under strong ordering, he showed that the relation of indifference between various combinations ruled out.

As elsewhere while discussing his Revealed Preference theory, Samuelson exhibited his clear awareness of parallel concept in physical sciences like Heisenberg's uncertainty principle in quantum mechanism. Revealed personal probability was discussed by him, enlarging it to the area of stochastic models of consumer behavior and he published a paper on "The St.Peterburg Paradox as a

divergent double limit". Observing the betting behavior in gambling theory, Samuelson brings out the dilemma in all small-prize experiments as social science analogues of Heisenberg's Uncertainty principle.

Discussing Dynamics, Statics and stationary state, Samuelson brings in analogues from physics and Chemistry and in fact advanced the theoretical implications of the well-known Le Chat lie's theorem in equilibrium phenomena. Similarly Bohr's correspondence principle enunciated for explaining the atomic spectra in Physics finds a parallel in Samuelson's work when he states that comparative statics is only a special case where permanent change is made and only the effects of the final levels of stationary equilibrium are in question. Dynamic analysis is proper gives us the description of the actual path followed by a system in gyring from one 'comparative static level to another'. This is like the energy levels for the electrons in atomic orbits merging into a continuum for large quantum numbers and classical mechanics being only a special case of quantum mechanics.

Samuelsson's dissertation on the accelerator-multiplier interaction principle is well-known. He further developed a principle to show that an economy may be in a vicious circle where the acceleration principle and multiplier interact to produce a cumulative deflationary or inflationary spiral. The analysis can explain how a down-turn can result from the previous expansion itself. This interaction principle has been put to excellent use in Hick's theory of business cycle, namely the fluctuations in the level of economic activity alternating between the periods of depression and boom conditions.

Samuelson has also made notable contributions to New Welfare Economics. He believes that economics should essentially be a normative science. The social welfare function is a method by which the special scale of preferences can be derived from individual state of preferences.Samuelson has developed a new concept called 'Net Economic Welfare '(NEW).In the past, economic welfare was measured mostly in terms of total output of goods and services or Gross National Product(GNP).
If we decide to work fewer hours per week, take more vacations per year, the GNP goes down. But our leisure has gone up. Now that people enjoy more leisure, we may say that welfare has gone up.

What we want is Welfare, not more growth. So the GNP is corrected for changes in leisure. Even the work done by women in home is included for it is productive, even though not paid employment. Similarly correction is made for pollution which affects the quality of our life .Samuelson advocated NEW growth for developed countries like the USA and countries in the Western Europe. Economic growth in terms of (simple GNP) of course is of crucial importance for developing countries like India.

Samuelson has always been alert and quick in expressing his views on contemporary economic problems. He has also contributed a lot to the understanding of new problems such as cost-push inflation and stagflation. Stagflation is a situation where there is stagnation (i.e. let downs in the rate of growth, though not an absolute depression like the old days) on the one hand and inflationary problem on the other hand at the same time. This is the problem faced by almost all industrial countries. On Government spending and public finance he has refreshingly new ideas. He has advised many government agencies and public figures.

Finally, one can say that Samuelson is a great performer; unifying a variety of economic doctrines for a normative role. Methodologically his multi-dimensional stature is truly impressive

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