



## The 3rd OECD World Forum on “Statistics, Knowledge and Policy”

*Charting Progress, Building Visions, Improving Life*

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### **NEW PARADIGMS TO MEASURE PROGRESS**

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##### **Why am I sceptical**

Gerd Gigerenzer and Peter M. Todd ask the question “How can anyone be rational in a world where knowledge is limited, time is pressing, and deep thought is often an unattainable luxury? Traditional models of unbounded rationality and optimization in cognitive science, economics, and animal behavior have tended to view decision-makers as possessing supernatural powers of reason, limitless knowledge, and endless time.” However, to my rescue they answer this question and I might be less skeptical. I will return to this point when I deal with measurement.

##### **1. Issues raised**

My intervention poses three questions broadly. The first is whether the polarised ideological differences on development paths are behind us or are just being resuscitated? The second is if these ideological differences are no longer the dominant feature of framing the debates, what then frames or informs the debates? Third in as far as our quest for new paradigms to measure progress, what is progress and can official statistics perform in this paradigm? In order to clarify my mind, I have preferred to make references to classics. I have done so in order that we remind ourselves that the phenomenon that we are dealing with today whilst may not have an end in sight, has a history that is adequately documented, at least it is a phenomenon that has a traceable beginning. It is a phenomenon that sought to describe mankind’s history as well as define and bring about the science of social theory. In the end I ask the question of the extent to which what is being proposed addresses the motive forces that drive change in society and whether that we have before us brings about sufficient leverage for defining progress and subsequently allowing us to chart progress, build visions and indeed improve lives. The intervention necessarily takes on a more historical approach.

Further questions as we traverse this journey into history are what are the human conditions that we are addressing as seen through history? What are the desired actions to change this condition?

What will the new state of human condition be when these actions have been taken? What is progress or what is its equivalent and what would it mean? Can this be measured? All these are profound questions that historically seek to advance a scientific study of social formations or generate social theory and in the true spirit of the conference we should talk about statistics, knowledge and policy. But more importantly the theme “Charting Progress, Building Visions and Improving Life”, speaks appropriately to those whose preoccupation is the human condition and their toil is to seek practical ways to resolve these social problems and issues. Philosophers, historians, sociologists, economists, scholars, politicians and thinkers of all shades and ideologies ponder these issues and seek to create a scientific discipline on the study of society and understanding of social formations.

## **2. Rickert’s position**

Heinrich Rickert in the ‘Natural Science and the study of Culture’ 1903, however, opines that looking for objective laws in history and social science is futile. He in fact emphasised that historical science and science formulating laws are mutually exclusive concepts. The question is what would it mean to chart progress, build visions and improve life without social theory and or measurement? According to Rickert we are on a wrong course. But there are others who predate Rickert that think scientific discourse has a place in social formations.

## **3. Refutation of Rickert**

Discourse on the interpretation of history has taken on several forms and for purposes of the discussion I will raise four of these. There is one interpretation that is grounded in religious or spiritual explanations, the other recognises the centrality of human beings as the makers of history, but fails to identify a scientific basis for such a claim, the third thrust is the dialectical materialist view of the world as represented by Marxist-Leninists and the fourth is one that recognises the ability of man as the centre of action but largely remains a utopian approach to change. By addressing these forms of understanding history, there could be a possibility for answering the question of what new paradigms might emerge to define and measure progress.

Represented by the more providential concept of Jacques-Benigne Bossuet (1627-1704), the advocates of this world view promoted the religious-spiritual interpretation of history. Disciples further modernised the thoughts of Bossuet in their writings on “Politics Deriving from the holy Scriptures and Discourse on Universal History.” The second school of thought takes on the approach that human beings create history through the attribute of their intellect and both their intellectual work and toil and the subsequent products emanating therefrom. This approach was espoused by the Renaissance advocates including the 18<sup>th</sup> century French Enlightenment stalwarts such as Diderot, Helvetius, Holbach and those of their ilk. They put man as the centre of history, but their work was not able to provide a scientific base for social change and social life. Paul Holbach for instance, articulated the view that major historical events are a result of psycho-physiological motives and concluded that fanaticism for war arose from too much acidity in the bile of these so called great men.

However, Hegel critiquing the thoughts of Holbach noted that will and consciousness remain highly improbable levers of change. Whilst granted that human beings become visible instruments of major historical events, will and consciousness however, fall far short for being the motive force for changes of a glacial magnitude taking place in society. He argued that epoch arousing events draw from a more profound driving force beyond libido and bile. Hegel

concluded that great historical personages were simple executioners of the will of a World-Spirit. Whilst Hegel identified the necessity of dialectics at play, he could not place these beyond the idea and the idea of a spirit. The laws of nature were also explored and superimposed on social life by some of these early thinkers as explanatory motive forces for change. Charles Montesquieu amongst them, invoked the power of soil and climate on shaping the history of nations and this thought received scathing criticism.

Despite the misgivings and difficulties of identifying a motive force for change and a general law for change, many enlightenment philosophers like Helvetius noted that material interests of individuals, class and interstate relations had a peculiar relationship with social change worthy of a scientific study. The French Enlightenment philosopher Jean Messlier advocated the abolition of private property as a solution to a human condition that was reminiscent of absence of human progress. Jean-Jacques Rousseau elegantly put it thus “Equality disappeared, property was introduced, labour became a necessity; and vast forests turned into riant fields, which had to be watered with human sweat and where slavery and poverty were soon sown and grew together with the harvest.” Morelly noting the undesirable human conditions then wrote that “eliminate property, I keep repeating, and you will do away once and for all with a thousand accidents that drive man to desperate extremes. I say that, once man has freed himself of this tyrant, it will be impossible, totally impossible for him to think about crime, to be a thief, a murderer or a conqueror.” Advancing the question of progress, Antoine-Pierre Barnave recognised that social progress was an ascendant phenomenon. It could zig-zag, incur major setbacks but nonetheless, it maintained an upward bias across time.

Jean Condorcet provided structure to development and identified ten development epochs through which man ascended over time. He maintained that man’s ability for progress or improvement was boundless.

Utopian socialists like Saint Simon were vocal on seeking a social system that would make all men truly equal and free from any form of oppression. They believed that it was possible to arrive at a just system without any struggle or social cataclysm.

#### **4. The stage for scientific study of society**

Those who set the stage for a more scientific approach to understanding ascendancy of social change were Adam Smith and David Ricardo. They noted the centrality of human toil or labour in the life of society and social progress.

It was through studying amongst others, the works of Adam Smith and Ricardo, that Engels and Marx advanced what they claim to be the scientific study of society. They argued that dialectical materialism provides the only scientific basis of understanding social formations. In their assertion Marx, Engel and later Lenin argued the concept of ascendance of change, that each subsequent historical epoch was a product of the one before it, and is borne out of contradictions inherent in its predecessor. Any resolution of the contradictions yields social progress and the subsequent stage born out of the former is a qualitatively higher order system hence the notion of ascendance of change. Primitive communalism was followed on by a feudal system of lords and serfs, which was soon to be replaced by the all pervasive capitalism and in their analysis saw communism as an inevitable system to replace capitalism. That failed and has not succeeded as yet and Stiglitz writes about this in his book “Whither Socialism.”

Turning to the meaning of progress, it appears that one thing is certain. That is at least for progress to be made there has to be change. Marxist-Leninist interpretation of change is defined by the battle of opposites. Antagonistic contradictions in the history of human history were the prime mover of change to date, and this change according to them represents social progress as the subsequent mode of production resulted from the development of the productive forces including the expansion of the intellectual capabilities of these productive force and the immanent relations of production. They argue that there could be very little debate that the capitalist system represents an advance on the feudal system, and if it were not so feudalism would have persisted.

Now relating to the current discourse of what constitutes progress and deliberations of GDP and beyond, a brief reference to business cycles is relevant. Business cycles are an inherent feature of market economies and as such cycles are accepted as natural. Marx critiquing the Say's Law (Law of Markets) showed that the abstract possibility of crises was inherent in the dialectics of commodity-money circulation. The sale of one commodity does not necessarily translate in the purchase of another commodity and purchases and sales can be interrupted at any given point in time and huge concentrations of commodities or money can be trapped in the system, Marx asserted that would lead to a crisis. Market economics teach us of perfect information which eliminates the abstract possibility of crises.

In time Lenin applying dialectical materialism wrote extensively on the inevitability of imperialism and the advance of monopoly capital as the capitalist system matures. In their 24<sup>th</sup> CPSU in 1971, the politburo pointed out how modern capitalism has adapted itself to new situations in the world, whilst its essence has remained the same. "And like a mud volcano straight-jacketed with reinforced concrete fetters is finding new ways for spewing out its contents, so does monopoly capitalism keep looking for new ways of deriving super profits, and in this effort, resorts to ever new forms of economic and political expansion on the international scene."

Let us now turn to the current economic crisis and the relevance of the work by Stiglitz. His critique of GDP as a measure is instructive and focused on the question of what is it that has been informing us since World War II and in retrospect has it been adequate? Is it adequate for the times? What are we going to do to get informed for a different set of outcomes? The conclusion was that current measures are about inputs and not about what is sustainable. The end game if we traverse the same course without changing will be the typical 'tragedy of the commons'.

At the level of the African continent, the debates are rather unclear, for even SNA 1968 in some countries is not complied with. Measurement of progress of societies has been met with trepidations by African statisticians, as they worry about what this new thing is about when the basics have not been met let alone SNA93 which most countries are far from meeting anyway. However in our discourse there are those who have argued that the questions being posed on the usefulness of the GDP are particularly important for the developing world as the size of their growth, especially those dependent on raw material exports have increasingly witnessed what Magboub Ul Haq called immiserising growth. However, by itself, GDP measurement does not immiserise, the question is what are the other measures that have to be used to point to matters of sustainability as expressed in the Paris Declaration for Aid Effectiveness as well as issues of mutual accountability? Stiglitz makes a very crucial point on the measures of GNP which would put broader context to especially export led growth based on basic raw materials.

Whilst the release of the report, per se, was not about statistics, the outcome has recommended very clearly, that because what gets measured gets done and in large measure what got done is

what has put us where we are today, a different end game of sustainable livelihoods is now what needs to get done and should be measured in order that it occupies the centre stage.

It is well known that the work by Stiglitz predate the financial and economic crisis but as the crisis hit, this work became an important input in addressing an economic phenomena with longterm consequences. The current crisis might have long been coming if we look at the early signs that hit the North Rock Bank of Scotland in late 2006, although essentially many appear not to have seen it. Some dismissed the North Rock problem as an innocent problem confined to North Rock. In fact there have been financial crisis before and these have been attributed to the ills of the developing world and have been diagnosed rather differently and the medicine has often been that of structural adjustments, which often has threatened the emerging democracies in these environments. This crisis, unlike the previous ones, is such that it is global, and no one part of the world absorbs the slack emanating from the other. Growth in all the GDPs of countries is pointing the same direction, southeast, with others having a sharper gradient, heading literally south. Packages have been given to stem the crisis.

Those who read economics, argue that the chief phase of a cycle is a crisis. They have identified what its outward signs are and these are said to be well known. It is overproduction, over-saturation of the market with products and an extremely low sales level, a sharp decline in prices and drying up of orders and withdrawal of orders for new machinery, in some cases, bankruptcy of industrial and commercial firms on a grand scale, an explosive demand for loan capital and a sharp drop in supply of loan capital which then disrupts the credit line and banks crash. Because the nature of these crisis are cumulative and hence form a bubble with increasing pressure, the ruin of one enterprise sets off a chain reaction, thus the ruin of many others. The hitherto drop in production leads to a spike in unemployment and the living conditions of the workforce drop significantly and effective demand dries up as a consequence.

The problem with the recent crisis is that it occurred even when the world had attempted to socialize and tame capital with the creation of the IMF and the World Bank and a plethora of multilateral institutions. Can more regulation resolve a repeat of a business cycle? Can production of statistics mitigate the onslaught of a business cycle? Is the definition of progress sufficient to stop a tide of a business cycle? Can mitigating business cycle effects address the fundamental problem of contradictions of capital?

Can we chart progress, build visions and improve lives without focusing on the ills of the fundamental of our economic systems and its attendant superstructure? Now that socialism collapsed, what might be the alternative that will not plunder the commons just as both capitalism and socialism did?

## **5. Where have statisticians remained?**

Statisticians and other information technicians appear to have confined their space to the so called objective measures and the positivist movement of Karl Popper and other positivists that influenced world thinking. In so doing they have inadvertently, raised the property of objectivity to equate to that which can be quantified and measured and surrendered to a lesser status qualitative research methods to a status of absence of objectivity. But Herbet Simon in the Science of the Artificial provides a window that answers the question of objectivity of qualitative measures.

"Continuing his exploration of the organization of complexity and the science of design, this new edition of Herbert Simon's classic work on artificial intelligence adds a chapter that sorts out the current themes and tools -- chaos, adaptive systems, genetic algorithms -- for analyzing complexity and complex systems. There are updates throughout the book as well. These take into account important advances in cognitive psychology and the science of design while confirming and extending the book's basic thesis: that a physical symbol system has the necessary and sufficient means for intelligent action. The chapter "Economic Reality" has also been revised to reflect a change in emphasis in Simon's thinking about the respective roles of organizations and markets in economic systems."

In another interesting article by Gerd Gigerenzer and Peter M. Todd look at a topic of Simple Heuristics to address the question of information gaps and time which many decision makers face. They conclude that "there is correspondence between evidence derived from large numbers of data and fast and frugal heuristics. However they refute equating fast and frugal heuristics to optimisation but see it as fitting in what is referred to as bounded rationality. They further argue that in Simple heuristics that make us smart, they explore fast and frugal heuristics-simple rules in the mind's adaptive toolbox for making decisions with realistic mental resources. These heuristics can enable both living organisms and artificial systems to make smart choices quickly and with a minimum of information by exploiting the way that information is structured in particular environments. In this precis, they show how simple building blocks that control information search, stop search, and make decisions can be put together to form classes of heuristics, including: ignorance-based and one-reason decision making for choice, elimination models for categorization, and satisficing heuristics for sequential search. These simple heuristics perform comparably to more complex algorithms, particularly when generalizing to new data-that is, simplicity leads to robustness."

## **6. To answer the questions I posed**

Whether the polarised ideological differences on development paths are behind us or are just being resuscitated? I would argue that the polarised ideological differences are surfacing and bring with them new and potent evidence for change. If these ideological differences are no longer the dominant feature of framing the debates, what then frames or informs the debates? The debates are still centred around how capital gets tamed and how socialist ideals engender accountability and responsibility including ownership yet the spectre of the tragedy of the commons gets more pronounced and possible under socialism. Third in as far as our quest for new paradigms to measure progress, what is progress? It appears that the scientific approach as articulated by Engels and Marx and later by Lenin provide a consistent body of knowledge and frameworks that allow for a more rational analysis and detailed pathways for addressing these important issues.

What are the human conditions that we are addressing as seen through history? These relate to poverty, inequality and adverse living conditions for a good proportion of the world. What are the desired actions to change this condition? Taming capital more vigorously and extending voice and ownership of the resources to the poor. What will the new state of human condition be when these actions have been taken? This will reduce poverty and resource communities to stand up for themselves. What is progress or what is its equivalent and what would it mean? I think the Marxist-Leninist framework provides a more convincing approach to understanding progress. Is measurement of these possible? I would argue it is possible statisticians need to work a little harder for direct measures or proxy measures that are or can be consistently pursued.