

WHAT SHOULD AN ECONOMICS DEPARTMENT TEACH ITS STUDENTS?: AN ESSAY

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ABSTRACT

What should a university economics department teach its students? To answer this normative question is to advocate a curriculum. An example of such an advocated curriculum is presented in this essay for comparison with the Nigerian Universities Commission curriculum benchmark (BMAS). The comparison shows that the BMAS does not seem to recognize the fact that the economist is primarily an analyst. The distinction between analysts and performers is accentuated using a football adaptation of Milton Friedman's well-known billiards metaphor which suggests that a good economics department should teach its students to think like economists. But then: What is the economists' way of thinking?

1. INTRODUCTION

This essay seeks to establish that the Nigerian Universities Commission (NUC) is biased against the economics discipline. The essay starts by asking what a university economics department should teach its students, especially its majors. This normative question elicits a curriculum, an example of which is compared with the NUC's 2007 benchmark undergraduate economics curriculum (BMAS).

The first case against NUC is that it does not seem to recognize the fact that economists are primarily analysts. For example, the NUC-BMAS seeks to train economists additionally as accountants, marketers, etc., whereby Nigerian economics curriculums are filled with business courses, often as compulsory rather than elective courses. That way of implementing NUC policy requiring curriculums to be 'reconstituted' to suit the Nigerian as well as the global job markets suggests that the purpose of the business courses is, presumably, to help economics graduates

secure employments. But granted such a laudable motive, would anyone suggest that engineering curriculums be loaded with bunches of auto mechanic courses just to help secure jobs for engineering graduates, even in environments with great numbers of junk vehicles that break down frequently and create abundant employment for mechanics?

NUC's motive is questionable given that the key to the modern economy is specialization. In that context, the compulsory business courses can be interpreted as an implicit NUC criticism of, or attack, on economics. The curriculum adulteration is striking especially because there is no equivalent compulsory business courses requirement for other social science disciplines, such as Sociology. Apparently, Sociology and other social science graduates can secure adequate employment without business courses; but not Economics graduates?

NUC's biases against Economics extend beyond curriculum adulteration. Consider, for example, that NUC admissions requirements for Sociology permit an O level grade of C in Geography, Political Science or Economics, but the Economics admissions requirements are more stringent, with no such options. Moreover, NUC made Economics a subject in the Joint Admissions and Matriculation Board (JAMB) university entrance examinations, but there is no equivalent targeted JAMB admissions requirement for most other social science disciplines.

The fact is that there is no proof that secondary school economics, compared with secondary school physics, additional mathematics or even geography, is a predictor of success in university economics. The ultimate effect of the admissions restrictions is to preclude from Economics many candidates who, all else equal, could have performed well in university economics. As it is, anyone wishing to become an economist is forced to declare that wish upon starting secondary school. Taken together, the restrictions on admission in addition to the curriculum adulterations, point to a retarding bias against the Economics discipline in Nigeria.

Possible reasons can be suggested for biases against economics. For example, consider that economics occupies a special position in the social sciences as the primary and direct foundation of most business courses. This position leaves economics open to attempts by the 'neighbouring' disciplines to 'co-opt' or 'domesticate' it. These attempts are often (masked and) manifested as 'perennial criticism of economics' as unrealistic (Friedman 1953, p.19).

In the Nigerian context, NUC probably viewed economics curriculums as unrealistic and unsuited to the needs of the Nigerian job market. The proffered solution has been to 'reconstitute' the economics curriculum with the help of business courses. But regardless of the sources of the biases against economics, the adulteration of economics curriculums is unjustified because, acknowledging specialization, if economists are trained, above all else, as economic analysts, there is no reason they cannot secure employment in a modern economy. If, on the other hand, economic analysts are well-trained but still unable to secure appropriate jobs in Nigeria, then maybe Nigeria has no need for economics as a distinct discipline. Also, if the purpose of the adulteration is to help economists secure employment, why the focus on business courses instead of technology courses.

for example? Lastly, how are the restrictions on Economics admissions justified?

A second source of bias is that economists often hold views that can seem contrary to common sense but views actually closer to the truth than views held by highly intelligent non-economists (Paul Krugman quoted in Frantz, 2005 p.137), because the views of non-economists are often based on dogma or anecdote rather than systematic study (Stiglitz, p.30). Stated differently, according to Friedman (p.1-2), almost every person has had some economic experience and, as such, considers himself or herself an 'expert' ('experience is a good teacher'); and also regards the subject matter of economics as vitally important to himself or herself personally ('personal stakes'). In addition, economics deals with interrelations of human beings that are a source of controversy (p.25). This potential source of conflict of views can lead non-economists to regard economic specialists as no more than 'self-proclaimed experts' whose expert opinions are often taken with only a grain of salt, so to say. This is made worse because economists lack unanimity. But even if economists were unanimous (and/or disinterested), according to Friedman (p.1-2), people would still be tempted to bend and shape positive conclusions to fit their normative preconceptions and to reject positive conclusions if and when the "normative implications are unpalatable."

Section 2 of this essay presents a football adaptation of Friedman's billiards metaphor intended to accentuate the distinction between analysts and doers; along with a review of the relevant literature. Section 3 asserts that an economics department ought to teach its students to think like economists; but what is the economists' way of thinking? Section 4 compares the BMAS with an alternative (see the appendix). The conclusion is in section 5. The references are in section 6.

2. DISTINGUISHING ANALYSTS FROM PERFORMERS

This section uses a football adaptation of Friedman's (1953, p.12-13) billiards metaphor to distinguish between analysts and performers. The London Daily Telegraph of 21 May 2002 carried the story of a physicist who worked out a set of equations that could yield the trajectory of the football in a famous free-kick by David Beckham during a Greece-England match. More recently, an Equatorial Guinea player named Balboa took a spectacular free-kick to win a 2015 CAF game against Congo (DR). Similarly, at the 2014 World Cup, L. Messi of Argentina scored on Nigerian goalkeeper Enyema also with a free-kick. Each of these kicks could be analyzed using mathematical physics.

In these football stories, one can presume that the analyst (a physicist, in this case) knows enough about foot-balling to be able to describe the relevant forces as well as the laws governing those forces. Otherwise, there is no supposition that the physicist is a good footballer. Often, an analyst (including a coach) is able to articulate what the player is doing in ways the player could not be expected to. For example, no one expects Messi or Balboa or Beckham to be able to solve the

applicable equations. Yet each kicked the ball as if he was applying physics equations. In general, a good analyst can discern the applicable laws governing what is going on and can articulate them even if the analyst himself is not a good doer or performer. On the other hand, the doer might not know much about the applicable laws or forces. Yet, notwithstanding such ignorance, doers, at least, the expert ones, act with regularity as if they are indeed applying the relevant laws some way or other. It is generally the case that performers internalize the forces influencing their activities and actions but probably could not articulate those forces or the laws.

Between analysts and doers there is a sort of division of labour such that the best doers are not the best analysts, and the best analysts are not the best doers; at least, in general. For example, the best footballers are not the best physicists. The analyst is an expert because he is able to take into account and call by name the relevant forces that could affect what is going on. This ability to identify the forces is often a learned ability, an acquired skill. In the case of economics, that is a key aspect of what the university economics departments should teach.

On the other hand, people can go to school also to learn how to be performers. For example, a player can learn to play football well and be able to make the ball do what the player wants. People go to school to study accounting, business or auto mechanic at apprenticeships, training programs and business schools that teach 'how to do'. According to Langlois (p.9), doers -- football players, mechanics, or businessmen -- are made expert by repetitious action and practice. Roger Frantz (p.151) suggests that doers use intuition, heuristics, rules-of-thumb and habits, to make decisions whereas modern analysts utilize both analytics (that is, "a conscious analytical step-by-step method of processing information") and intuition.

In his book *The Outliers*, Malcolm Gladwell claims that it usually takes about ten thousand hours of dedicated practice and learning for a person to become superlative (the best he can be) in whatever it is he does. In the usual cases, the doer as well as the analyst perfects his trade through long hours of focused learning and practice until it all becomes second nature to him. Seeing the expert person performing, one is led to think it is all talent (or magic). In that view, specialization cannot be overemphasized in a modern economy.

In this essay, the term analyst is used to denote a person who conceptualizes, operationalizes, analyzes and articulates the laws governing what is going on. In particular, the analyst uses the tools of his specialty to explain what is going on. In this sense, the analyst is a 'teacher' in a similar sense as in Chinua Achebe's essay titled "The Novelist As A Teacher"; that is, the novelist as an explainer of what is going on. The analyst also predicts and forecasts.

Note that with regards to football the applicable laws are laws of physics and, therefore, the presumed analyst is a mathematical physicist. But it should not be taken for granted that there are no other types of analysts who offer explanations for what is observed. As a matter of fact, there exist varieties of analysts in most fields of endeavour. Indeed, it is possible to find some analyst explaining the drama on a football field as a *dibia's* handiwork and assistance, with a claim

that the ballplayer has a special ring on his little toe and that it is the power of the ring that makes the ball behave the way it does. A different analyst might claim it to be the will of the gods, and might advocate spiritual realignments.

3. THINKING LIKE ECONOMISTS

Applying the football metaphor to economics points to an analogy between physicists and economists; they are analysts. Economists are social scientists, using their science to "observe, understand, analyze and synthesize" (NUC, p.5) and articulate what is going on in society. On the other hand, economic agents are doers, analogous to footballers, who make decisions partly based on intuition and instinct and are often unable to express their deeds in explicit words or numbers (Frantz, p.145).

Given that economists are analysts, how should they be trained? Training students to become economists involves training them to think like economists. That is what the economics department should be doing: teaching students to think like economists.

How do economists think? Economists think in terms of the following key principles. Productive resources are scarce and scarcity necessitates choice among alternative resource uses. Choices are made at the margin, in general; and involve opportunity costs or trade-offs. Opportunity costs define comparative advantage which helps in determining specialization. Economic agents are rational and self-interested, and respond to incentives. For both individuals and groups, the incentives are the marginal costs and marginal benefits arising from choices. Distinctions are made from between self-interest and social or public interest; positive economics and normative economics; microeconomics and macroeconomics; efficiency and equity; short-run and long-run, etc. The concept of *ceteris paribus* helps to simplify models. Fallacies are identified. Economic systems have a tendency towards equilibrium (or stability). Economic growth is desirable, in general. The importance of economic institutions is recognized. For example, if the institution of private property rights is strong, self-interest can promote social interest ('invisible hand'). These intellectual tools help distinguish the economics discipline from other social sciences, and distinguish the discipline from its subject matter.

Given the distinction between analysts and doers, how should economists analyze and articulate what economic agents do when engaged in economic activities? In general, economists treat economic agents as if these agents are indeed rational and well-informed. In Friedman's opinion, and in defense of economics methodology, even if the economic agent has no clue with respect to economic laws, economic analysts should still treat the agent as if the agent indeed knows and observes the laws of economics just like the physicist treats the ballplayer as if the ballplayer knows and observes the laws of physics.

To justify this reasoning, Friedman presents several examples, metaphors and analogies

such as the billiards players, leaves on a tree, a falling body, etc. One of Friedman's examples is the hypothesis that "firms behave as if they were seeking rationally to maximize their expected returns ... Now, of course, businessmen do not actually and literally solve the system of simultaneous equations in terms of which the mathematical economist finds it convenient to express this hypothesis ... the hypothesis is justified by evidence ... that unless the behaviour of businessmen in some way or other approximated behaviour consistent with the maximization of returns, it seems unlikely that they would remain in business for long" (p.13-14). According to Friedman (p.5), as a matter of fact, the only relevant test of the validity of an economic theory or hypothesis is not the realism of its assumptions but the comparison of its predictions with experience.

According to Langlois (p.1), this reasoning of modern economists, including Friedman, can best be understood by referring to Karl Popper's rationality principle which analyzes social processes by assuming that economic agents act reasonably in whatever the situation they find themselves. Economic agents do not make persistent errors (Samuelson and Nordhaus, p.89), because they are rational, which can be interpreted to mean that economic agents have objectives that can be used to evaluate available options. In the case of the consumer, the assumed objective is utility. For the firm, it is expected returns. It is self-interest that induces the consumer to seek to optimize utility; and in addition to competition, self-interest forces the firm to maximize profit; all the while leading each economic agent to seek to acquire optimal information.

It can happen in reality that an economic agent is unaware of changes occurring around him; and even if he is aware, he might still not be able to ascertain the impacts of those changes (Okigbo, p.1). In other words, an economic agent may be purposefully rational but his physical, mental, or cognitive capacity can be limited or 'bounded rationality' (Simon (1957) quoted in Williamson, p.11). On the other hand, the analyst needs to be aware of the relevant changes, relationships and forces in order to be able to predict outcomes of economic activities. It is this awareness and insight that make the economic analyst an expert (Varian, p.136). That is what the Economics department should teach its majors.

4. ECONOMICS CURRICULUMS

A modern economics curriculum should adopt an analytic approach which, according to Varian (p.xx), encourages "rigorous, logical reasoning," rather than an 'encyclopedia of anecdotes and definitions'. This approach aids in training of economics students to think like economists; to become modern economic analysts equipped with analytical, quantitative, and expository skills plus expert intuition. In order to accomplish this, the curriculum recognizes that modern economics is about explicit and formal modeling. It acknowledges the importance of mathematics in economics. With mathematics, economists can perform operations for which not many manageable verbal equivalents exist; mathematics is often more powerful than ordinary speech (Henderson and Quandt, p.4). Modern economics can be thought of as applied mathematics and applied statistics just like engineering and physics. It is hard to imagine a good modern economist poor at mathematics. According to Varian (p.xx), "Graphs can provide insight, but the real power of economic analysis comes in calculating quantitative answers to economic problems."

It follows that the economics major needs good mathematical and statistical grounding. By the end of his second year, at the most, the major should have a working knowledge of differential and integral calculus, linear algebra, differential equations, and probability theory. In the third year, the major takes mathematical economics and econometrics as well as applications courses. By the end of four years, the trainee is equipped with the necessary array of tools. A recurrent problem is that many students of economics do not possess requisite mathematical skills. Therefore, in order to achieve the above results, there is a need to conduct rigorous placement tests for incoming students. Incoming student without adequate preparations (especially mathematics) should be required to take remedial courses. Tutorials cannot be overemphasized in the first two years of university education.

In comparing the suggested curriculums, note the following courses listed by BMAS as economics electives: Labour Economics, Monetary Theory and Policy, Theories of Economic Development, Energy Economics, Money and Banking, Industrial Economics, Taxation, Mathematical Economics II, Econometrics, International Finance, Project Evaluation, etc. At the same time, BMAS (p. 22) defines an elective course as: "A course that students take within or outside the faculty. Students may graduate without passing the course provided the minimum credit unit for the course had been attained." This means that, under the BMAS, an economics major could avoid or fail any of these elective courses and still be able to graduate. No wonder the Nigerian economics graduate would be unsuited for employment as an economist. No wonder also NUC deems as necessary for a well-rounded economics education such business courses as Introduction to Accounting, Principles of Finance, Financial Accounting, Management Accounting, Financial Institutions, Industrial Relations and Personnel Management, Principles of Auditing, Economics of Marketing, etc..

In the advocated curriculum, six credit units of Principles of Economics is the prerequisite for intermediate economic theory courses; compared to the twelve credits of NUC's Elements of Economics and Introduction to Economics. The advocated Principles courses cover the materials in such good introductory texts as McConnell et al. (2009), Samuelson and Nordhaus (2006), etc. The intermediate micro and macro courses are to be taken in second year. Note also the prominence given to mathematics, statistics and computer science in the advocated curriculum. In addition, the core economics courses are now given their rightful place depending on the student's areas of interest; with the business courses relegated to electives where the student can choose to take them if interested. NUC general studies requirements are satisfied. A major difference between BMAS and the advocated curriculum is what courses are designated as compulsory. Finally, courses such as Political Economy, etc. are moved to later years in order to create space in the curriculum for prerequisite courses.

5. CONCLUSION

The key to the modern economy is specialization. Therefore, the adulteration of economics curriculums is unjustified, regardless of whether the motive is a concern for economists' job prospects, attempts of business schools and others to 'co-opt, domesticate or colonize' the economics discipline, or contempt for economists. If economists are well-trained as economic analysts, it is hard to imagine a modern economy that does not have need for them. Also, if the purpose of adulterating economics curriculums is to help economists secure employment, why the insistence on business courses instead of computer/hi-tech courses, for example? Lastly, many of the business courses are themselves often out of date. For example, many Nigerian accountancy lecturers are not even aware of QuickBooks (formerly called QuickenBooks), the computer software that has revolutionalized accounting.

The conclusion is that NUC could be misguided with regards to Economics.

This essay ends with a personal advice to prospective majors. If you want to learn how to do things, go to business school and learn accounting, marketing, etc. But if what you want is to learn how to analyze and articulate what is going on in society, including what businesses and households do, come home to the Economics Department where you stand a chance to win a Nobel Prize for doing your work. This advice may sound chauvinistic but the point is clear, I hope.

6. REFERENCES

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