AFRICA AND DEVELOPMENT, "RATIONAL CHOICE" OR "INSTITUTIONAL RATIONALITY?"

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ABSTRACT

Modern economic development models introduced in Africa since independence take for granted important institutions needed for development. These models are based on economic "rational choice" theories which seem to suggest that the ability to make sound economic decisions is part of human anatomy. This notion is a precept for trickle down macroeconomic development policies. Trade liberalization, global economics and financial assets management are among many post-colonial development programs. Unlike mainstream neoclassical economics, this paper using Potts (2007) and Dopfer (2012) along the lines of Schumpeterian evolutionary economics, argues that economic development emanates from "institutional rationality." That is, economic agents make decisions according to prevailing social structure. Thus, changing institutions at the generic domain affect economic behaviors and development. Modern economic development models, however, are analyzed at the operant domain where agents are exposed to economic opportunities. Whereas in the generic domain, agents create and discover new opportunities themselves because agents are rule carriers. A rule is a specific knowledge that enables the carrier to perform economic operations. A rule is originated through the introduction of a new idea that is adopted by a rule population. The new idea passes through a trajectory to meso unit, a social structure, where it is adapted, routinized and retained until a new rule is introduced to destabilize it. The never-ending processes of meso stabilization and destabilization is economic development. Sub-Saharan Africa policy makers must understand the order of rules, meso trajectory and its effects on economic order. Moreover, without degeneration of old rules, new knowledge meant for technological progress is "encapsulated" by ceremonial rules.

Keywords: Evolutionary, Schumpeterian, Rules, Institutions, Adaptation, routine and retention.

JEL Classification: O14, O35, B13, B15, B25, B52

1. INTRODUCTION

Contemporary economic analyses along with development models are trickle-down macroeconomics theories based on the presumption of "Rational Choice." These theories are predicated on the beliefs that humans all over the world, regardless of prevailing institutions, have the capacity to make rational long-run economic decisions. This assumption is held to its core in

every economic analysis. Nonetheless, if this simple assumption is relaxed all economic models, including development models crumble.

Prior to this concept, the problem of economic value was the major concern to all economists. In fact, the difference between classical and neoclassical economics was that in the former, economic value of a product was objectively determined by the hours of labor content in the production. However, from the neoclassical era onward economic agents were thought to possess the perfect mode of valuation. Therefore, people were bestowed with the free will to subjectively determine the value of goods. The price a person is willing to pay for a good depends on the value an individual places on the product. Combined with the concept of diminishing marginal utility theorized by Stanley Javons (1870) and streamlined by Alfred Marshall (1890), "rational choice" has become the cornerstone generally assumed and accepted for all economic models. It perfectly conceptualized a downward sloping demand and upward sloping supply curves. A free market analysis was born.

Incidentally, economic "rational choice" conforms ideologically with human political yearning for liberty and freedom. The free will to choose is a fundamental human right and perhaps great thinkers in economics believed any conceptualization that contradicts this basic right would be inimical to human survival. This concept created a comfortable marriage between politics and economics. Moreover, "rational choice" is theoretically in agreement with tenets of natural and physical sciences. As theory based on the forces of nature can be mathematically expressed with continuous differentiations and smooth curves, "rational choice" in economics became a derivative from the law of nature. "Rational Choice" also forms a perfect theoretical marriage between economics and biological Darwinism.

However, by the 1870s and 1890s when this concept was fully integrated as a tenet of economic analysis, the United States, Canada, Japan and many nations of Europe were already developed or on the trajectory of development. If "rational choice" or models based on it were not responsible for economic successes in the advanced world, it behooved economics scholars to rethink and search for the true source of development. Perhaps, there are substitute or complementary theories that place nations on the path of development. In this case, models based on "rational choice" are mere nineteenth century social constructs being experimented in Africa in the twentieth and twenty-first centuries. Although the Asian Tiger's economic successes are credited to the same development models as in Africa, a closer examination of economic institutions in Singapore and South Korea would reveal otherwise (Yew 2000).

Furthermore, Herbert Spencer (1884) believed that economic development arose from two stages: the "militant" stage of European monarchy and imperial Japan followed by the capitalist democratic laissez faire, free will. In fact, the "militant" stage created the economic man who subsequently was endowed with the power to use subjective preferences. Thus, the theory of "rational choice" seems to suggest all institutional changes that took place in developed countries prior to the postulation of subjective preferences are irrelevant. Therefore, the abilities to make sound economic decisions are part of human anatomy.

The Schumpeterian "institutional rationality" argues, however, that the economic man is made and making sound economic decisions depends on the institutions in which people find themselves. Contrary to neoclassical economic theories, people are not born with the innate ability to efficiently make economic choices; institutional changes affect the choices of economic agents. If this is the case, emerging nations of Africa should take a look at prevailing institutions and study the methods of institutional change.

Modern development models based on neoclassical theories of the nineteenth century have not resulted in expected economic growth in Africa. This is not surprising knowing that market-based analyses comprised a small segment of an open economic system. From the evolutionary economics point of view, economic reforms in Africa since independence (including economic liberalization, global economics and financial asset value management) are not factors responsible for economic changes in the true sense of development. In place of models based on "rational choice," we should investigate the issues of development from the perspectives of "institutional rationality" in evolutionary economics.

This paper gives a basic description to the two domains of evolutionary economics and how contemporary development models are rooted in the wrong domain. Section two of this paper describes the generic domain (institutions) of evolutionary economics and relates it to Africa. Section three gives conceptual framework of the operant domain as practiced by mainstream neoclassical, Keynesian, monetarist and modern development programs. Section four concludes.

2. INSTITUTIONS IN EVOLUTIONARY ECONOMICS

Economic development emanates from institutional changes. Institutions are formed by rules and institutional changes are rule evolutions. Economic development therefore can be approached by investigating the rules responsible for institutional changes. Veblen (1899), Commons (1934), Bush (1987) and Hodgson (2002) recognize institutions as originating from beliefs. Beliefs reflect on behaviors and repeated behaviors become habits. Shared habits are values, which become norms and customs when deeply ingrained.

Social Darwinians, however, approach institutional changes through the concepts of "artificial selection" (Common 1934). Natural selection in biological Darwinian analogy

replicates DNA and genes but "artificial selection" in socio-economic analogies, replicates habits, routines and customs. Habits, routines and customs are all components of fundamental institutions, which are self-organizing along a spontaneous order (Hodgson 2002). From a different institutional perspective, diffusion theory (Redmond 2003) is based on how new ideas are dispersed to the consumers who are already embedded in old habits and tradition. In terms of economic development, the Veblenian, social Darwinians, and diffusion theorists would be concerned with how the general public are made to adopt, adapt, retain and habituate new rules.

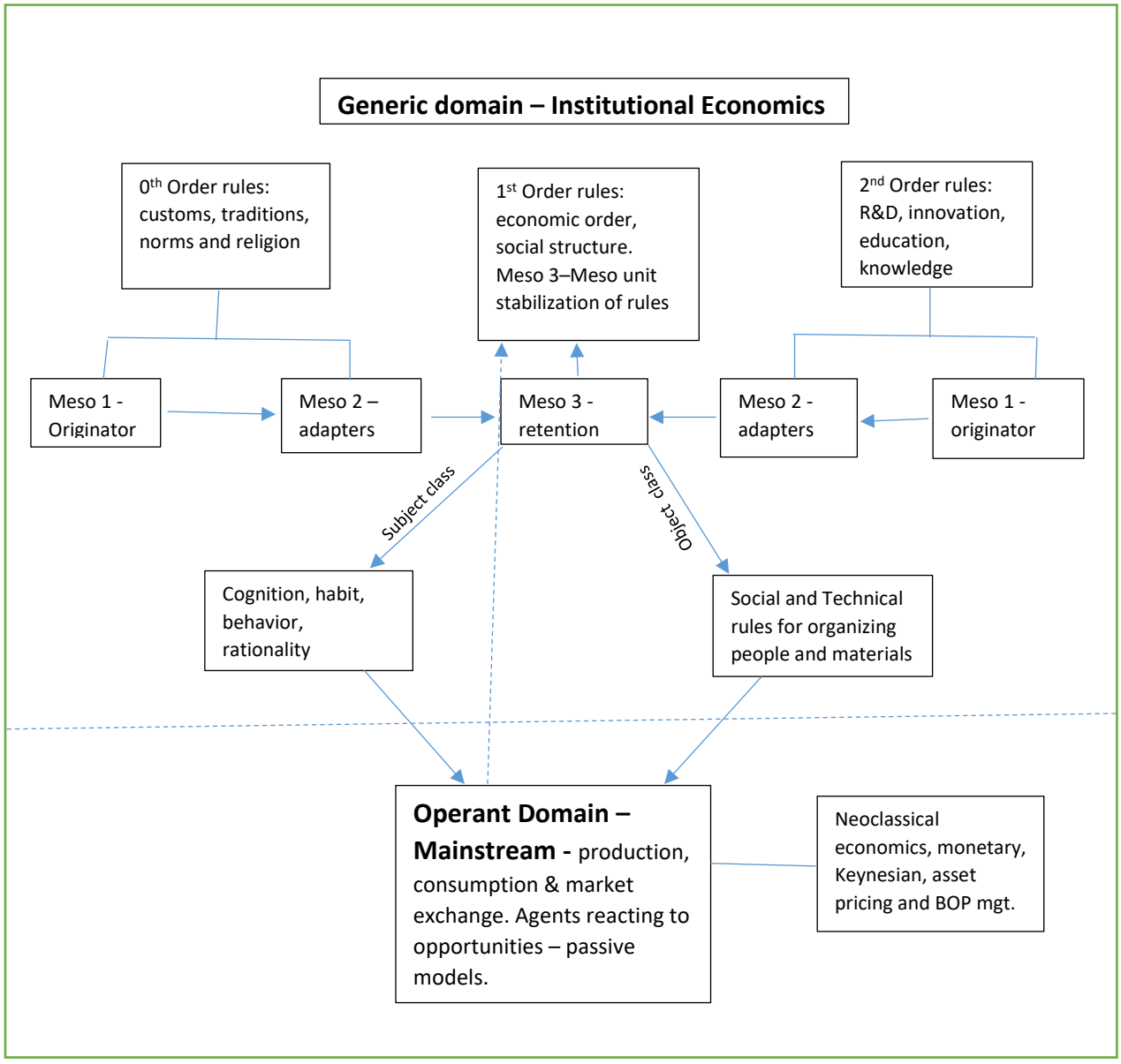
The Schumpeterian (1912/1934) evolutionary economics create a broader picture which encompasses both the institutional and mainstream neoclassical economics. Evolutionary economics, in line with Dopfer, Foster and Potts (2004) and Potts (2007) categorize the working of an economy into two domains: generic and operant. The generic domain makes analyses about institutional economics while mainstream neoclassical and Keynesian economics are analyze within operant domain.

Dopfer, Foster & Potts (2004), Potts (2007) and Dopfer (2012) constructed Schumpeterian analysis around the generic domain comprised of rules that define both social process and structure – rules that can be adopted, learned, adapted and retained by other agents to form rule-population (habits and routines). Institutions are comprised of rules, rule carriers, populations of rule carriers, the evolution of rules and meso units. A change in the meso unit is what is known as economic development.

Potts (2007) illustrates a micro unit as an individual agent rule carrier and meso analysis as population carriers of rules. An individual with specific knowledge, a rule carrier originates a rule in meso 1 and the rule passes through a trajectory to meso 2 where it is adopted by a population of rule carriers. After adaptation and retention, it is stabilized in meso 3 until a new rule comes

about. Meso 3 is a meso unit where new values are retained through social restructuring and transformation at the macro level. Thus, economic agents are active and bring about change. They search and discover economic opportunities. This is what Schumpeterian theory refers to as "methodological individuals." Development is spearheaded by actions of agents within. Figure 1 shows a diagram of generic and operant domains within an open space system as analyzed in evolutionary economics.

Figure 1 – Evolutionary Economics



Note that meso 3 social restructure could emerge from zeroth (0^{th}) order and second (2^{nd}) order rules. Zeroth (0^{th}) order are constitutive rules, embedded informal institutions including customs, tradition, norms and religion (Potts 2007). These are similar to Williamson (2000) level 1 institutions. They are sticky, and if not targeted could take millennia to achieve change. Second, (2^{nd}) order rules are mechanisms for changing rules, knowledge about knowledge. According to Potts (2007), new rules emanating from research and development, innovation and education would be considered 2^{nd} order rules. Rules pass through a trajectory to populations of adapters. Trajectory is a historical process. First (1^{st}) order rules in meso 3 are habituated and routinized rules that form economic order and social structure. Economic evolution or development results from changes in meso 3, where social restructure results from the popularity of new rules or degeneration of old rules, a process commonly referred to as "creative destruction."

Subject class and object class rules are determined by Meso 3 in generic domain. Rules for cognition, rationality, behaviors, preferences, habits, et cetera are subject class of rules, while social and technical rules for organizing people and materials, respectively, are object class rules. Note that subject class rules are assumed away in neoclassical mainstream analysis.

Furthermore, 0^{th} order rules are fundamental institutions which, along the lines of Veblen (1899), Bush (1987) and Hodgson (2006) discussed above, have the capacity to "ceremonially encapsulate" new rules. According to Bush (1987), "rule-following" behaviors based on embedded informal institutions of customs, traditions, norms and religion influence individual mode of valuations and could lead to ceremonial outcomes. These values "cannot be tested for refutability, they are myths and not subject to critical scrutiny, accepted as authority and regarded as absolute." New rules, which are "purpose-seeking," designed to create economic opportunities may not gain popularity owing to embedded rules of custom and tradition supplied by 0^{th} order.

Therefore, originated rules at meso 1 may not pass through the trajectory for adoption at meso 2. Meso 3, containing prevailing economic order, remains stable as it continues to be fed with previous 0^{th} order values.

This is also in agreement with "pre-scripted rationality" (Redmond (2004), where people display the tendency to fall back on familiar behaviors because it takes a significant degree of cognitive energy to learn, adopt and retain new rules, which exhibit "planning rationality." "Pre-scripted rationality" is equivalent to Bush's "rule-following" because it is based on past ingrained behaviors and requires little cognitive efforts while "planning" rationality is similar to "purpose-seeking" and requires considerable cognitive efforts. Mainstream neoclassical "rational choice" economics, on which contemporary development models are based, assumes all humans are preconfigured to exhibit "purpose seeking" and "planning" rationalities. Institutional economics argues that "purpose seeking" and "planning" behaviors are learned and acquired through meso processes in the generic domain.

Change could also be initiated from the right side of the diagram, 2^{nd} order rule: growing knowledge about knowledge. Research, development and innovation are mechanism and drivers of social progress. Rules from this side are compatible with the Schumpeterian innovator who introduced a new idea in meso 1, adopted and adapted in meso 2 and reconstruct meso 3 when retained.

A further analysis could be found in Bush's theory of structural change. In a world of growing knowledge and technological progress, "encapsulation" occurs when new knowledge about technological or economic growth is swallowed by the presence of a "rule following" ceremonial mode of valuation. Instead of subscribing to the new knowledge for social development, the new information is "contained" (Swaney 1986). On the other hand, the new

knowledge could be "embodied" when nations inculcate the information into the system and use the new knowledge for technological and social progress as illustrated in the object class of rules.

"Ceremonial encapsulation" occurs when new knowledge that society comes across is contained by existing Africa's traditional rules prevailing in 1st order rule. Bush created the "index of ceremonial dominance." For instance if the index of ceremonial dominance in a particular society is 4:1 or higher, then 80% or more of new knowledge experienced is "encapsulated" or swallowed by local ceremonial values and 20% or far less is "embodied." In this case, the ability for emerging nations of Africa to absorb new technology is highly determined by the ratio of the "index of ceremonial dominance." Note, here technology is ways and methods of doing things.

Bush also stresses that society could be exposed to technological advancement through the "knowledge fund." Owing to the prevalence of ceremonial dominance, however, only the portion of knowledge fund that is compatible with pre-existing value structure of society would be "embodied" to socio-economic development. Information in the knowledge fund that cannot be justified within the existing (1st order) value system would not be sanctioned thereby depriving the society of sustainable industrialization. An institutional change leading to higher stocks of "instrumental warranted" behavior occur only when there is a change in the value system. This is also consistent with the micro-meso-macro analysis of Potts (2007) and Dopfer (2012). Can any African nation relate their conditions in modern societies to meso trajectory, 0th order and 2nd order rules that influence the 1st order economic system and the power of "ceremonial encapsulation" as well as the scarcity of "knowledge funds?" If yes, then rapid development should be pursued from the institutional domain.

3. OPERANT – MAINSTREAM ECONOMICS

From the perspective of evolutionary economics, the second domain, the *operant*, sources information from the *generic* domain. Information for resource transformation and transactions are applied in the *operant* domain. Mainstream neoclassical economics, Keynesian and monetarist analyses based on Javons (1870), Marshall (1890) and Keynes (1936) are entirely within the *operant* (operational) domain, which assumes "rational choice." These theories are based on the marginal utility and marginal productivity as well as constraint maximization and minimization without rule changes. Analyses in this domain do not require or affect rule carriers, rule trajectory, population adoption, adaptation, meso trajectory and retention of new rules. Operational analyses lack real dynamism and only concentrate on production and market adjustments.

In this domain, complete agent rationality is assumed irrespective of rules prevailing in the social structure. Agents are passive and react to economic opportunities. They do not search or discover new opportunities. Agents do not learn, adapt and retain new rules. It is assumed that agents will abandon preconceived rules once they are confronted with new economic opportunities generated by contemporary development programs. This is indicated in figure 1 by the broken line from the operant domain to the economic order. It did not happen in the Asian Tigers and it won't happen in sub-Saharan Africa. The founding father of Singapore was initially unpopular among his people because he tackled zeroth (0^{th}) order rules head-on (Yew 2000).

Since the operant domain does not evolve, development models, such as economic liberalization, monetization and financial asset management, built on operational domain are not part of the generic structure that evolves for economic development. For example, Structural Adjustment Programs (SAP) include trade liberalization, privatization of state owned enterprises, fiscal prudence, devaluation of currencies, etc. These actions set up opportunities for economic

agents to react. The programs assumed perfect rationality and are action specific. They do not require acquisition, adaptation of rules that could be retained for structural changes. Real economic development requires active agents who search and discover opportunities based on rules retained in the economic order.

4. CONCLUSION

Economic programs in sub-Saharan Africa have not yielded much expected change and development due to "rational choice" assumption underpinning modern development programs. Development takes place at the generic domain but contemporary development programs are at the operant domain. Economists need to re-examine the notion that economic policies will work regardless of prevailing institutions. If the developed world underwent institutional changes prior to the advent of "rational choice," and continue to experience institutional evolution, African nations in order to catch up with the rest of the world, would have to implement new rules capable of restructuring economic orders, especially working from 0^{th} order and 2^{nd} order rules.

Sub-Saharan Africa countries operate with fundamental institutions founded on rules that have not undergone changes within the meso unit. New knowledge introduced that could lead to technological progress are "ceremonially encapsulated," instead of being instrumentally "embodied" in the economic order. Knowledge fund embodiment requires population adopters and retention of new rules.

Therefore, emerging nations of sub-Saharan Africa ought to focus on recognizing that institutions are embedded rules and development requires institutional changes. They should be concerned about how rules are originated, be aware of orders of rules, and recognize carriers of rules, rule populations, rule adoption and rule retention. Economic agents as active individuals in

search and discovery of opportunities also economizes on energy. Agents need adaptive institutions. Thus, "institutional rationality" prevails.

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