

January 2015

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### Recommended Citation

Bangura, Abdul Karim (2015) "A Pluridisciplinary Treatise of the Fractal Complexity in John Mukum Mbaku's Corruption in Africa: Causes, Consequences and Cleanups," *African Social Science Review*: Vol. 7: No. 1, Article 1.  
Available at: <http://digitalscholarship.tsu.edu/assr/vol7/iss1/1>

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## **A Pluridisciplinary Treatise of the Fractal Complexity in John Mukum Mbaku's Corruption in Africa: Causes, Consequences and Cleanups**

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**Abstract:** *While my extensive search yielded about 20,500 mentions, seven scholarly citations, and three scholarly book reviews of John Mukum Mbaku's Corruption in Africa: Causes, Consequences and Cleanups (2007), no systematic analysis has been done on the text, even though such potential exists. This is a serious gap in the literature on Africa's international affairs and development studies because the book is one of the major works, if not the most comprehensive work, on a topic that has significant implications for the continent's international relations and development. This paper is an attempt to fill this gap. Specifically, I employ the mathematical concept of Fractal Dimension and Complexity Theory to explore the idea of the spectrum progressing from more orderly to less orderly or to pure disorder which reflect the major postulates on corruption in Africa. This called for the utilization of the Pluridisciplinary approach that helped me to mix linguistics and mathematical approaches—more precisely, Linguistic Presupposition and Fractal Methodology. The results generated after the MATLAB computer runs suggest that the combination of negative and positive feedback loops, which form the basis of several African knowledge systems, also form a key mechanism of general self-organizing systems in Corruption in Africa: Causes, Consequences and Cleanups.*

**Keywords:** Corruption, fractal complexity, pluridisciplinary methodology, linguistic presupposition, Africa

### **Introduction**

**J**ohn Mukum Mbaku in his *Corruption in Africa: Causes, Consequences and Cleanups* (2007) presents a comprehensive analysis of the impact of corruption on the African continent. Divided into a preface, 12 chapters, and an index, the 393-page book investigates the causes of corrupt practices and a number of policy options to fight against the malfeasance. Employing the postulates of Public Choice Theory, Mbaku highlights the important role that institutions must play in order to control corruption and recommends reconstructive democratic constitutions as the most effective path to development.

*Corruption in Africa: Causes, Consequences and Cleanups* has been mentioned in approximately 20,500 sources, cited in seven scholarly works, and reviewed in three scholarly journals. Yet, no systematic analysis has been done on the text, even though such potential exists. This is a serious gap in the literature on Africa's international affairs and development studies because the book is one of the major works, if not the most comprehensive work, on a topic that has significant implications for the continent's international relations and development.

This essay seeks to fill this gap because as Mbaku points out, corruption control has become an important policy issue in many countries due to the movement toward improved governance structures and more public accountability ushered by events taking place in the global economy that have significantly improved the reform environment in many countries and accelerated the pace of democratization and economic reform. Mbaku also notes that the events of September 11, 2001 and their aftermath made corruption a very important concern for countries fighting transnational terrorism because terrorists have been able to corrupt public officials in many developing countries and use these countries' financial institutions to launder money and make it available to their agents in the developed countries to finance their terrorist operations. Consequently, the United States and other developed countries that are targets for terrorism have become quite concerned about corruption and are using their agencies, as well as multilateral agencies like the World Bank and the International Monetary Fund, to engage in the fight against global corruption. In addition, Mbaku notes that corruption remains one of Africa's most important development and foreign investment constraints, as many foreign entrepreneurs who could provide the resources and technology that African economies need to improve domestic macroeconomic performance and significantly increase their participation in the global economy are reluctant to invest in Africa because of the high levels of corruption (Mbaku 2007:ix-xi).

Consequently, I employ the mathematical concept of Fractal Dimension and Complexity Theory to explore the idea of the spectrum progressing from more orderly to less orderly or to pure disorder in the text in terms of the two major postulates on corruption in Africa. The first postulate (*disorder*) is that corruption leads to a self-glorifying language that is notoriously unflattering; a confusion of greed and selfishness with success; an obsession with living in a world in which societal relations comprise a brutal battle for survival, devoid of rules, trust, or courtesies in which mercy and mutual consideration (much less altruism and concern for the public good) are shared folly; or, at best, we might come to believe that the aim of societal relations is to join an exciting game and, above all, "have fun." (It should be noted here that African languages do not have the exact translations for the Western notion of having fun. After adolescence, an individual supposedly learns that risks and challenges can be foolish as well as invigorating, wasteful as well as productive.) Or, more cynically, societal relations present themselves as a grueling necessity, without ultimate point or purpose (Bangura 2007:61). The second postulate (*order*) is that corruption is now a widely accepted part and parcel of the culture (Bangura 2007:62). This called for the utilization of the Pluridisciplinary approach that helped me to mix linguistics and mathematical approaches: more precisely, Linguistic Presupposition and Fractal Methodology. Before discussing all of these aspects and the results generated from the MATLAB computer runs, it makes sense to briefly examine the three scholarly book reviews on Mbaku's text to give the reader a sense of what these scholars thought about it.

### **A Review of the Book Reviews**

As I stated earlier, three scholarly book reviews have been written on Mbaku's text. All three reviews utilize the same approach. They begin with what the book is about, move on to highlight the main points in each chapter, and then end with a brief assessment. Therefore, only the last aspect of their review approach is examined here. The following is a look at these reviews in the chronological order in which they were published.

First, Andrea Conner and E. Ike Udogu (2008) tout Mbaku's book as being a comprehensive analysis of the impact of corruption on society and that it is a textbook *par excellence* that provides discussion questions to be used by students to advance their critical and creative thinking on the subject. They note that the book augments and sheds more light on Mbaku's earlier work on the nature and character of corruption in Africa. They add that the book is highly useful for students in the fields of politics, sociology, and business/economics. They also recommend that groups and organizations interested in fighting corruption, international policy makers, and particularly members of the African Diaspora must read the book because they are members of the informed public who are likely to join members of civil society organizations in Africa to combat corruption and contribute to the continent's development.

Second, Peter Arthur (2008) states that the strength of Mbaku's book hinges upon the adoption of a materialistic interpretation of corruption. Arthur notes that by outlining how self-interest leads to corruption, as well as advocating that democratic constitution-making and its concomitant institutional structures be developed, the book suggests that the tide of corruption could be stemmed. He argues, however, that while anti-corruption strategies might be helpful, one cannot underestimate the importance of measures that can give citizens greater access to public information. He also argues that the strengthening of existing laws to ensure that corrupt practices are harshly punished as well as rewarding those public servants who exhibit high ethical standards in performing their duties and responsibilities could be helpful. He further argues that the book could have highlighted some cases in Africa where successful corruption cleanups had occurred rather than reinforce the general negative perception of corruption being endemic on the continent. He adds that by arguing that the necessary institutions needed to achieve democratic constitution-making are absent suggests that the status quo of corruption will be maintained. Despite these shortcomings, Arthur concludes that the book is meritorious because it has concrete examples and evidence to support the theoretical arguments proffered in it.

Finally, Gariba B. Abdul-Korah (2010) lauds Mbaku's book as an excellently written expose that provides empirical evidence to support existing theories that corruption, the abuse of public office for private gain, is no longer just a problem of the developing world but one which has taken a global dimension since the end of the Cold War (in the late 1980s). Abdul-Korah states that the main strength of the book lies in its organization, as each chapter addresses a different but closely related aspect of the problem and is followed by a number of excellent discussion questions that can be employed to engage students in a classroom. Nonetheless, he points out that while the book pays too much attention to state reconstruction through democratic-making as the most effective tool to cleanup corruption in Africa, it merely glosses over the fact that a country can have an excellent constitution with all the laws that restrict economic institutions and people, but the laws may not be effectively implemented and obeyed, especially when corruption has become more or less a "survival strategy" for the majority of the people. Despite these shortcomings, he concludes that the book is an excellent resource for students of African history and politics, policymakers, and all those non-governmental organizations combating corruption in Africa.

Indeed, the preceding reviews shed a great deal of light on Mbaku's book. None of them, however, is systematic in its analysis of the text; by doing so, the present essay seeks to fill this

critical gap.

### **Research Methodology**

The major challenge for me was how to transform the linguistic pragmatic or deep-level meanings in Mbaku's text for mathematical modeling. As I stated earlier, this called for the utilization of a pluridisciplinary approach that helped me to mix linguistics and mathematical approaches: more precisely, Linguistic Presupposition and Fractal Methodology. Before analyzing the results generated after the MATLAB computer runs, it makes sense to begin with brief descriptions of Pluridisciplinary Methodology, Linguistic Presupposition as the unit of analysis, and Fractal Methodology. The following subsections are descriptions of these techniques. Furthermore, it behooves me to state here that discussions of this methodology also appear in the following works: Abdul Karim Bangura (ed.), *Fractal Complexity in the Works of Major Black Thinkers, Volumes One and Two*, San Diego, CA: Cognella Press, 2013; Abdul Karim Bangura, "A Mathematical Exploration of Fractal Complexity among the Axioms on the African State in the *Journal of Third World Studies: From John Mukum Mbaku to Pade Badru*," *Journal of Third World Studies*, Vol. xxix, No. 2, Fall 2012:11-64; Abdul Karim Bangura, "Fractal Complexity in Cheikh Anta Diop's *Precolonial Black Africa: A Pluridisciplinary Analysis*," *CODESRIA Bulletin*, Nos. 1 & 2, 2012:10-19; and Abdul Karim Bangura, "Fractal Complexity in Mwalimu Chinua Achebe's *Things Fall Apart: A Mathematical Exploration*," *Critical Interventions*, Number 9/10, Spring 2012:106-121. The following is a discussion of these techniques.

### **Pluridisciplinary Methodology**

Pluridisciplinary Methodology can be generally defined as the systematic utilization of two or more disciplines or branches of learning to investigate a phenomenon, thereby in turn contributing to those disciplines. Noting that Cheikh Anta Diop had called on African-centered researchers to become pluridisciplinarians, Clyde Ahmed Winters (1998) states that a pluridisciplinary specialist is a person who is qualified to employ more than one discipline—for example, history, linguistics, etc.—when researching aspects of African history and Africology in general.

The history of the Pluridisciplinary Methodology can be traced back to the mid-1950s with the works of Cheikh Anta Diop and Jean Vercoutter. The approach was concretized by Alain Anselin and Clyde Ahmad Winters in the 1980s and early 1990s. A brief history of this development with brief backgrounds of these four pioneers is retold in the rest of this section.

G. Mokhtar in his book, *Ancient Civilizations of Africa* (1990), traces the development of Pluridisciplinary Methodology to the works of Diop and Vercoutter. Diop was born in Senegal on December 29, 1923 and died on February 7, 1986. He was a historian, anthropologist, physicist, and politician who investigated the origins of the human races and pre-colonial African culture. His education included African history, Egyptology, linguistics, anthropology, economics, and sociology. He is considered one of the greatest African intellectuals of the 20th Century. Jean Vercoutter was born in France on January 6, 1911 and died on July 6, 2000. He was a French Egyptologist.

According to Mokhtar, Diop and Vercoutter were in total agreement on the point that it is necessary to study as much detail as possible all the genes bordering on the Nile Valley which were likely to provide fresh information. Mokhtar notes that Vercoutter considered it necessary to give due weight to the palaeoecology of the Delta and to the vast region which had been termed by other researchers the Fertile African Crescent. Mokhtar points out that Diop advocated tracing the paths taken by peoples who migrated westwards from Darfur, reaching the Atlantic seaboard by separate routes, to the south along the Zaïre Valley and to the north towards Senegal, on either side of the Yoruba. He adds that Diop also pointed out how worthwhile it might be to study Egypt's relations with the rest of Africa in greater detail than had been done, and Diop further mentioned the discovery, in the province of Shaba, of a statuette of Osiris dating from the 7th Century before the Christian era. Similarly, argues Mokhtar, a general study might be made of the working hypothesis that the major events which affected the Nile, such as the sacking of Thebes by the Syrians, or the Persian invasion of 522 BCE, had far reaching repercussions on the African continent as a whole (Mokhtar 1990:55).

Furthermore, according to Winters, two major scholars who have advanced the pluridisciplinary approach by combining anthropological, historical and linguistic methods to explain the heritage of African people, constituting a third school of Africentric researchers (the first and second schools being the African American and the French-speaking African and African Caribbean, respectively), are Anselin and himself (Winters 1998). Anselin teaches ancient Egyptian linguistics at the University of Guyana Antilles. He is an anthropologist and also the founder of the *Journal of Caribbean Egyptology*. Winters is a lecturer at Governors State University at University Park in Illinois where he teaches curriculum design and research methods courses. He also is a 28-year teaching veteran of the Chicago Public Schools system.

Anselin is the author of three important pluridisciplinary Africentric books—(1) *Samba*, (2) *La Question Puele*, and (3) *Le Mythe d'Europe*—and numerous articles. In *Samba*, Anselin demonstrates how the corpus of Egyptian hieroglyphics explains both the Egyptian civilization and the entire world of the Paleo-Africans. He also makes it clear that Kemetic civilization originated in the Fertile African Crescent and that Black African and Kemetic civilization at its origination was unified from its foundations in the Sahara up to its contemporary manifestations in the languages and culture of Black Africans. In *La Question Puele*, Anselin examines the unity for Egyptian, West African and Dravidian languages, political traditions and culture. He also provides a detailed discussion of the “Black Ageans.” The findings comprise a thorough representation of the affinities between the Aegan and Dravidian civilizations (Winters 1998).

Winters is the only African American that attempts to confirm Diop's theories in relation to the genetic unity of the Egyptian, Black African, Elamite, Sumerian and Dravidian languages. Winters is mainly concerned with the unity of the ancient and new worlds' Black civilizations and the decipherment of ancient Black writing systems used by these Africans. This interest had led him to learn many languages, including French, Tamil, Malinke/Bambara, Chinese, Arabic, Otomi, and more (Winters 1998).

Winters had used Diop's genetic model in his research by combining anthropological, linguistic and historical methods to confirm that the center for the rise of the originators of the Egyptian and Manding civilizations, the Magyar or Hungarian civilization, the Dravidian

civilization, and the Sumerian and Elamite civilizations was the Fertile Crescent of the highland regions of Middle/Saharan Africa. He also explains how Blacks founded civilizations in the Americas and East and Southeast Asia. A major finding from Winters' work is that the ancestors of the Dravidian and Manding-speaking people seem to have left Africa at the same time around 2600 BC, and that these people founded civilizations in Europe, Elam, India and ancient China (Winters 1998).

Like Diop before him, Winters also discusses the African sub-stream in European languages, the conflict between African people and Indo-European-speaking people, and the loss of early African settlements in Europe to the contemporary European people due to natural catastrophes and wars around 1000 BC. Winters provides valuable source material for the elaboration of the African influence on European languages and those of East and Central Asia (Winters 1998).

Winters had discovered that the Proto-Saharan people used a common writing system. He also was able to read the ancient inscriptions left by these people in the Sahara dating to 3000 BC. He was able to confirm this development by comparing the Manding and the Elamite languages, and the Sumerian and Dravidian languages. The evidence of a genetic relationship between the Manding languages, which Winters used to decipher the earliest Proto-Saharan writings and other languages spoken by the founders of civilization in India and Mesopotamia, led him to hypothesize that the writing systems used by these ancient founders of civilization could be deciphered. The utilization of Diop's linguistic constancy theory allowed Winters to confirm his own hypothesis and read the common signs used to write the Harapant, Minoan and Olmec scripts (Winters 1998).

Winters' most significant finding is the cognate language of Meroitic. By employing the evidence presented by the Classical sources that the Kushites ruled empires in Africa and Asia, Winters is able to show that the cognate language of Meroitic was the Tokharian language spoken by the Kushana people of Central Asia. He has been able to decipher many Meroitic inscriptions by using the Kushana/Tokharian language (Winters 1998).

According to Dani Nabudere (2003), Pluridisciplinary Methodology involves the use of open and resource-based techniques available in an actual situation. Thus, it has to draw upon the indigenous knowledge materials available in the locality and make maximum use of them. Indigenous languages are therefore at the center of the effective use of this methodology.

What all this suggests, according to Nabudere, is that the researcher must revisit the indigenous techniques that take into consideration the epistemological, cosmological and methodological challenges. The researcher must be culture-specific and knowledge-source-specific in his/her orientation. Thus, the process of redefining the boundaries between the different disciplines in our thought process is the same as that of reclaiming, reordering and, in some cases, reconnecting those ways of knowing, which were submerged, subverted, hidden or driven underground by colonialism and slavery. The research should therefore reflect the daily dealings of society and the challenges of the daily lives of the people.

Towards this end, following Nabudere, at least the following six major questions should guide pluridisciplinary research (2003:13):

- (1) How can the research increase indigenous knowledge in the general body of global

- human development?
- (2) How can the research create linkages between the sources of indigenous knowledge and the centers of learning on the continent and in the Diaspora?
  - (3) How can centers of research in the communities ensure that these communities become “research societies”?
  - (4) How can the research be linked to the production needs of the communities?
  - (5) How can the research help to ensure that science and technology are generated in relevant ways to address problems of the rural communities where the majority of the people live and that this is done in indigenous languages?
  - (6) How can the research help to reduce the gap between the elite and the communities from which they come by ensuring that the research results are available to everyone and that such knowledge is drawn from the communities?

The truism that indigenous knowledge is critical to Africa’s development prompted a workshop titled “Indigenous Knowledge Systems and Intellectual Property in the Twenty-First Century: Perspectives from Southern Africa” convened at the University of Botswana from November 26 to 28, 2003 which culminated into a book with the same title published in 2007 by the Council for the Development of Social Science Research in Africa (CODESRIA) based in Dakar, Senegal. The tenor of the workshop and subsequent book is that the twin themes of indigenous knowledge systems and intellectual property rights have moved to the center of academic discourse within the context of innovation and the commercialization of knowledge. This is because wealth is no longer reckoned in terms of physical assets alone. Unfortunately, the traditional imbalance between the North and the South, which has for long manifested itself mainly through trade, is replicated even in tapping intellectual property given to residents of the developing world who remain largely unable to define their property rights. Once again, the West exploits Africa and the rest of the developing world by expropriating indigenous knowledge systems and patenting them in the West (Mazonde and Thomas 2007).

Various scholars have suggested many major concepts to underlie the Pluridisciplinary Methodology, but it is Dan Nabudere (2003) who has provided the most succinct definitions and discussions for most of these concepts. They are as follows:

(a) *African Spirituality* refers to those aspects of people that have enabled them to survive as a human community throughout the centuries. It transcends European classical humanism with its class, socioeconomic and geographical limitations based on Greece and the Athenian City-State, which is based on a system of slavery. African Spirituality leads to enlarged humanities and recaptures the original meaning of humanity which Western scholars, beginning with Plato, in their hollow and lopsided search for material progress, have abandoned (Nabudere 2003:3-4).

(b) *Contemporary African Philosophy* is a critique of the Eurocentric “idea” and “general philosophy” in its metaphysical perception that European humanism is superior to that of the African people. This falsehood, which has been perpetuated by Europe to this day, hinges upon the belief that the rest of humanity has to be *forced* to believe like Europe in order to be

“humanized” into a singular humanity. Contemporary African Philosophy seeks to “de-structure” this European pretext and emphasize humankind’s “shared humanity” (Nabudere 2003:4).

(c) *The African Renaissance* is the initiative to recapture the basic elements of African humanism (*ubuntu*, *eternal life*, and *immanent moral justice*) as the path to a new humanistic universalism. This initiative, according to Chancellor Williams, “is the spiritual and moral element, actualized in good will among men (and women), which Africa itself has preserved and can give to the world” (Nabudere 2003:4).

(d) *The Pan-Afrikan University* does not begin in a vacuum, for it has a deep heritage of culture and “civilizational” values that must inform its recreation (e.g., the Sankore University in Timbuktu). These institutions are to be found within Africa’s ancient achievements. They must be unearthed and reclaimed. If the Pan-Afrikan University is to respond to this historic challenge and be a part of the correction of its historical distortion and theft of African heritages, it has to provide deeply thought out and well-conceived vision and mission, with a well-articulated strategy to achieve its objectives. For it to be successful, it must be a part of the creation of a counter-hegemonic discourse which can enable the “triple agenda of deconstruction, reconstruction, and regeneration” to be undertaken at the same time. Consequently, the Pan-Afrikan University must develop the University as a new institution of higher education, which can help in reshaping the direction of education on the continent toward a more culture-specific and culturally relevant curriculum and pedagogy of liberation. It must draw from those heritages and provide the students, adult learners and the communities with a space in which they can learn as well as carry out their research and be trained by their teachers, community experts, and consultants at the University campuses as well as in the community knowledge sites. Essentially, the Pan-Afrikan University must be people-centered and community-based in which everyone enjoys the freedom to learn and speak (Nabudere 2003:5-6, 14).

(e) *African Epistemology and Cosmology* imply the development of an all-inclusive approach which recognizes all sources of human knowledge as valid within their own contexts. This calls for the adoption of hermeneutic philosophy in its African essence. This African-based epistemological and cosmological foundation is the prerequisite for the production and development of knowledge (Nabudere 2003:6-7).

(f) *African Humanism/Ubuntu* is a concept from the Southern African Nguni language family (IsiNdebele, IsiSwati/IsiSwazi, IsiXhosa and IsiZulu) meaning humanity or fellow feeling; kindness. *Ubuntu* serves as the spiritual foundation of African societies. It is a unifying vision or worldview enshrined in the maxim *umuntu ngumuntu ngabantu*: i.e. “a person is a person through other persons.” This traditional African aphorism, which can be found in every corner of the continent, articulates a basic respect and compassion for others. It can be interpreted as both a factual description and a rule of conduct or social ethic. It both describes the human being as “being-with-others” and prescribes what that should be (Bangura 2005 & 2008).

(g) *African Languages* are at the center of developing the Pan-Afrikan University at all knowledge sites. Language, as Amilcar Cabral correctly pointed out, is at the center of articulating a people's culture. He stated that the African revolution would have been impossible without Africans resorting to their cultures to resist domination. Thus, culture is a revolutionary force in society. It is because language has remained an "unresolved issue" in Africa's development that present day education has remained an alien system. As Frantz Fanon put it, "to speak a language is to assume its world and carry the weight of its civilization." Kwesi K. Prah has argued consistently that the absence of African languages in the curriculum has been the "key missing link" in the continent's development. Consequently, the Pan-Afrikan University must build its curriculum on the basis of promoting African languages at the sites of knowledge and at the same time try to build libraries at those sites in the languages of the people living there. They must be promoted as languages of science and technology. This calls for the complete revamping of the epistemological and cosmological worldview of the current discourse. It also calls for the application of different methodological and pedagogical approaches to learning and research in African conditions (Nabudere 2003:10).

(h) *New Humanities* is to serve as the core department in the division of the Pan-Afrikan University concerned with research and advanced studies. In the words of Chancellor Williams, the New Humanities "will have the task of enlisting the services of the world's best thinkers of the work of developing a science of humanity through studies expressly aimed at better human relations. It is to be at the heart of the entire education system and, therefore, the nation." Williams believes that the central idea in this philosophy is life. He argues that since neither Western science nor religion has provided satisfactory answers to three questions (From where do we come? Why? And where are we bound?), it is imperative for the Pan-Afrikan University to provide the space for discussing these eternal questions. This approach calls for the reorganization of the disciplines of the social and human sciences as well as the natural sciences into a holistic learning process. The reorganization should lead to a breaking down of the over-compartmentalization and over-fragmentation of faculties, departments, and branches of knowledge. It should explore the reunification of allied disciplines (which have been subdivided into sub-disciplines) into unified fields of study (Nabudere 2003:14).

(i) *Hermeneutic Philosophy* recognizes the basic unity of human endeavor through "discourse" that expresses "the intelligibility of Being-in-the world" (Nabudere 2003:16).

(j) *Integrated and Synthesized Knowledge* is based on the notion that privileging African-centered curriculum must transcend a narrow conception of what is purely African to include such knowledge within the wider synthesized framework of global knowledge (Nabudere 2003:17).

(k) *Afrikan-based Pedagogy* draws inspiration and materials for learning from real life situations of the African people, especially in the rural areas, by adopting those pedagogical

methods and techniques that inform their philosophy of life, their worldview, and their lived experiences and practices. The key to developing an Afrikan-based Pedagogy hinges upon the knowledge specific-sites where African experts of different branches of knowledge are located. These sites will inform both the content and the pedagogy. The pedagogy will incorporate “oracy,” which contains forms of art and techniques to which they give expression, which is essential for adult learning. By mainstreaming this form of expression, its agents gain visibility and recognition in knowledge creation and production. This will enable indigenous tales, stories, proverbs, legends, myths, symbols and epics to be resuscitated, for these forms of knowledge incorporate people’s philosophies of life, norms, values in a kind of “moving” and “living library” (Nabudere 2003:19).

(l) *Life Long Learning*, which has recently become a mantra of many developed countries and international organizations as a novel approach to learning in the 21st Century, is deeply embedded within African culture and epistemology. Learning and “culturalization” in African societies were considered continuing processes that “took place from birth until death with the family unit, extended family, the village and the entire community participating” (Nabudere 2003:19). Life Long Learning will bring adult learners to formal institutions of learning and remove the division between informal, non-formal, and formal education in line with African traditions and culture. It will also provide for the cooperation in research between the Pan-Afrikan University and the communities, in addition to providing for the recognition of learning outcomes gained through their own contexts outside the formal education system (Nabudere 2003:20).

(m) *Kemetic Civilization* is a Black African civilization whose origination in the Fertile African Crescent was unified from its foundations in the Sahara up to its contemporary manifestations in the languages and culture of Black Africans (Winters 1998).

The favored methodological approach for pluridisciplinary studies is Hermeneutics, an open-ended approach that permits cross-cultural communication and exchange of ideas and opinions to promote understanding between all knowledge systems in their diversities. This African philosophical-pedagogic approach hinges upon the acceptance of pluralism and cultural diversity. It stresses the need for the “fusion of historical horizons” as the best way of transmitting understanding between different lived histories or experiences of different communities as the basis of their existence. It insists on both the cultural context and the historical contingencies of events as necessities for a true comprehension of the different lived experiences. Furthermore, the approach has its roots in the African/Egyptian mythical figure of Hermes, the messenger of knowledge from the gods to mortals and the interpreter of the divine message to humankind, and that is why Hermeneutics is named after Hermes (Nabudere 2003:7-8).

Hermeneutics is to be employed on the premises that encourage self-directed learning, which engages with the knowledge, interests, and real life situations that learners bring to their learning situations. This notion of site-specific knowledge attempts to offer a corrective to the Eurocentric tendency of universalizing knowledge around Occidental centers and sites of

knowledge which are privileged to the disadvantage of others, claiming to be the only sites of “rationality” and “scientific knowledge.” Recognizing the other sites and centers leads to a truly multi-polar world of global knowledge culled from all sources of human endeavor (Nabudere 2003:8).

### **Linguistic Presupposition as the Unit of Analysis**

As stated earlier, the unit of analysis for the present essay is linguistic presupposition, which can be defined as an implicit assumption about the world or background belief upon which the truth of a statement hinges. The linguistic presuppositions for this study are drawn out of the writer’s/Mbaku’s topics in the text examined. The writer’s topics here are the a priori features, such as the clear and unquestionable change of subject focus, for defining types of linguistic presuppositions found in the text examined. While there are many other formulations of ‘topic’ from which to choose, the writer’s topics are employed for this essay because it is the writer who had topics, not the text. The other formulations of ‘topic’ include sentential topics, discourse topics, presuppositional pools, relevance and speaking topically, topic boundary markers, paragraphs, paratones, representation of discourse content, position-based discourse content, and story. Thus, the notion of ‘topic’ in the present essay is considered as one related to representations of discourse content.

In choosing the writer’s topic as the recording unit, the ease of identifying topics and correspondence between them and the content categories were seriously considered. Guiding this choice was the awareness that if the recording unit is too small, such as a word, each case will be unlikely to possess any of the content categories. Furthermore, small recording units may obscure the context in which a particular content appears. On the other hand, a large recording unit, such as a stanza, will make it difficult to isolate the single category of a content that it possesses. For the current essay, two methods were appropriate. First, there is the clear and uncontested change of subject focus. Second, topicalization was found to have been used to introduce new characters, ideas, events, objects, etc.

Finally, in order to ascertain the reliability of the coding unit employed for the essay, attempts were made to show inter-coder reliability: that is, two or more analysts, using the same procedures and definitions, agree on the content categories applied to the material analyzed. Two individuals, who had extensive training in discourse analysis, were given copies of the text studied to identify what they perceived as topics, or more specifically, where one topic ends and another begins. There were no differences between the two experts and me, thereby increasing my confidence that the meaning of the content is not heavily dependent on my analysis alone.

After identifying the presuppositions in the text studied in terms of the topics identified, these propositions were placed into two categories (*order* versus *disorder*; more on these later) based on the bottom-up processing approach common in linguistic analysis for further examination. This involved working out the meanings of the propositions already processed and building up composite meanings for them.

Because the text examined is a representation of discourse in text, the level of analysis is naturally the written text. Text is used here as a technical term—in Gillian Brown and George Yule’s conceptualization, “the verbal record of a communicative act” (1983:6).

In order to ascertain the presuppositions and in the text examined, the test known as Constancy

under Negation Rule was employed. This test is important because, following Gottlob Frege (1892/1952) and Peter Strawson (1952), presuppositions are preserved in negative statements or sentences. A researcher can therefore simply take a sentence, negate it, and see what inferences survive: that is, are shared by both positive and negative forms of the sentence. But because, as Stephen Levinson (1983:185) is quite correct in pointing out, “constancy under negation is not in fact a rich enough definition to pick out a coherent, homogenous set of inferences,” the tests for presuppositional defeasibility (the notion that presuppositions are liable to evaporate in certain contexts) and the projection problem of presuppositions (i.e. the behavior of presuppositions in complex sentences) were also employed.

Consequently, in order not to necessarily presume the conclusions to be drawn, cues to the intent of the author of the text examined are ‘deconstructed.’ How, then, are these cues mapped out for the present essay? According to Herbert Paul Grice’s (1975) characterization of meaning or non-natural meaning (which is equivalent to the notion of intentional communication), intent is achieved or satisfied by being recognized. A sender’s communicative intent becomes mutual knowledge to sender and receiver: that is, S knows that H knows that S knows that H knows (and so ad infinitum) that S has this particular intention. So following Roger Shuy (1982), it is necessary to begin by asking “What did the writers (here, Mbaku) do”? Thus, it is clearly necessary to look at specific topics developed by the author of the text analyzed. This is particularly true because, according to Wallace Chafe (1972) and Carol Kates (1980), the structure of intentions can neither be defined by the grammatical relations of the terms, nor the semantic structure of a text. Therefore, mapping out the cues to the intent of the author contained in the text analyzed called for: (a) identifying communicative functions, (b) using general socio-cultural knowledge, and (c) determining the inferences made.

### **Fractal Methodology**

It is only logical to begin any discussion of Fractal Methodology with a definition of what a fractal is. As I state in my book, *Chaos Theory and African Fractals* (Bangura, 2000:6), the concept of fractal remains inexplicably defined. This shortcoming is pointed out by Philip Davis as follows, albeit he himself does not provide an explicit definition: “I consulted three books on fractals. Though there were pictures, there was no definition” (1993:22). The following is a small sample of the various ways the concept of fractal has been described as provided by Lynn Steen:

The concept of fractional dimension, or fractals, was developed in order to describe the shapes of natural objects....An interesting property of fractal objects is that as we magnify a figure, more details appear but the basic shape of the figure remains intact (1988:409).

In addition, according to Steen,

The word fractal—coined by (Benoit B.) Mandelbrot—is related to the Latin verb *frangere*, which means “to break.” The ancient Romans who used *frangere* may have been thinking about the breaking of a stone, since the adjective derived from this action combines the two most obvious properties of broken stones—irregularity and fragmentation. The adjectival form is *fractus*, which Mandelbrot says led him to fractal

(1988:420).

Furthermore, as Steen points out, “Fractal dimension (is) a measurement of the jaggedness of an object” (1988:413).

Keith Weeks (in Hargittai and Pickover 1992) states:

[J. E.] Hutchinson laid the foundations of a certain concept of self-similarity, the basic notion being that of the object made up of a number of smaller images of the original object, and so on ad infinitum, typically resulting in detail at all levels of magnification, a trait commonly associated with objects referred to as *fractals* (1992:107).

From the preceding descriptions, I venture to offer a general definition of a *fractal* as a self-similar pattern: that is, a pattern that repeats itself on an ever diminishing scale.

As for Fractal Methodology, more popularly referred to as Fractal Analysis, itself, with its applications in the social sciences, Clifford Brown and Larry Liebovitch in their recent work appropriately titled *Fractal Analysis* (2010) published as part of the Sage Publications Quantitative Analysis of the Social Sciences series have a succinct exposé on the subject. The rest of the discussion in this section is based on their work.

Brown and Liebovitch begin by stating that several early applications of fractal mathematics emerged in the social sciences. These works include Vilfredo Pareto’s 1897 study of the distribution of wealth; Lewis Fry Richardson’s 1948 and 1960, but published posthumously, study of the intensity of wars; and George Zipf’s 1949 studies of the distributions of word frequencies and city sizes. Brown and Liebovitch argue that while these ideas were known by experts in the field, they were isolated, quirky concepts until Mandelbrot developed the unifying idea of fractals in the 1970s and 1980s. Since that time, however, in spite of the fact that Zipf and Pareto distributions represent fractal distribution, social scientists have lagged behind the physical and natural sciences in utilizing fractal mathematics in their works (Brown and Liebovitch 2010:ix).

Brown and Liebovitch observe, however, that in recent years, the application of fractal mathematics by social scientists in their studies has grown exponentially. Their variety, they note, has expanded as rapidly as their numbers. They cite the examples that fractal analysis had been employed by criminologists to investigate the timing of calls for assistance to police, by sociologists to investigate gender divisions in the labor force, and by actuaries to study disasters. The surprising range of fractal phenomena in the social sciences led Brown and Liebovitch to call for a comprehensive survey that would investigate the common threads that unite them, thereby leading to a broader understanding of their causes and occurrences (Brown and Liebovitch 2010:ix).

According to Brown and Liebovitch, if a researcher has rough data, strongly nonlinear data, irregular data, or data that display complex patterns that seem to defy conventional statistical analysis, then fractal analysis might be the solution to the researcher. They posit that the non-normal and irregularity of so much of social science data apparently are the result of the complexity of social dynamics. Thus, for them, fractal analysis offers an approach for analyzing

many of these awkward data sets. And more important, they note, the method also offers a rational and parsimonious explanation for the irregularity and complexity of such data. They insist that the data are not behaving badly; instead, they are simply obeying unexpected but common rules of which we are unaware (Brown and Liebovitch 2010:1).

Brown and Liebovitch go on to conceptualize fractals as “*sets* defined by the three related principles of *self-similarity*, *scale invariance*, and *power law relations*.” They postulate that when these principles converge, fractal patterns form. They note that the statistic called *fractal dimension* is employed to capture the essential characteristics of fractal patterns. They add that much empirical work in fractal analysis focuses on two tasks: (1) showing that fractal characteristics are present in a particular data set and (2) estimating the fractal dimension of the data set. They also mention that there are various techniques for implementing these two tasks (Brown and Liebovitch 2010:2), the discussion of which is beyond the scope of the present essay. Nonetheless, it is necessary to provide brief definitions of the preceding five italicized concepts based on Brown and Liebovitch’s work for the sake of clarity. The significant fact about *sets* is that almost all data sets can be fractal: that is, points, lines, surfaces, multidimensional data, and time series. Since fractals occur in different types of sets, various procedures are required to identify and analyze them, with the approach hinging upon the kind of data (Brown and Liebovitch 2010:2-3).

Brown and Liebovitch define *self-similarity* as a characteristic of an object when it is composed of smaller copies of itself, and each of the smaller copies in turn are made up of yet smaller copies of the whole, and so on, *ad infinitum*. The word *similar* connotes a geometrical meaning: that is, objects that have the same form but may be different in size (Brown and Liebovitch 2010:3).

*Scale invariance* for Brown and Liebovitch refers to a thing that has the same characteristics at every scale of observation. Thus, when one zooms on a fractal object, observing it at ever-increasing scale of magnification, it will still look the same (Brown and Liebovitch 2010:5).

According to Brown and Liebovitch, *power law relations* denote the rule that for a set to achieve the complexity and irregularity of a fractal, the number of self-similar pieces must be related to their size by a power law. Power law distributions are scale invariant because the shape of the function is the same at every magnitude (Brown and Liebovitch 2010:5).

Finally, Brown and Liebovitch characterize *fractal dimension* as the invariant parameter that characterizes a fractal set. An analyst uses the fractal dimension to describe the distribution of the data. It is akin to having a “normal” set of data and using the mean and variance to describe the location and dispersion of the data (Brown and Liebovitch 2010:15).

## Data Analysis

Before engaging in the fractal analysis of the data generated from Mbaku’s text, I will begin with a discussion of the descriptive and inferential statistics employed to analyze them. Before computing the univariate and bivariate statistics to do the descriptive and inferential analysis of the data teased out of Mbaku’s text, a two-dimensional ad hoc classificatory system was developed within which the data were categorized. The first of these categories entails the presuppositions of *order*: that is, presuppositions that suggest a condition of logical or

comprehensible arrangement among the separate elements of a group. This type of presupposition is triggered by presuppositional discourse stretches such as “Events taking place in the global economy during the period 1989-1991 significantly improved the reform environment in many countries and accelerated the pace of democratization and economic reforms,” “Along with this movement toward improved governance structures and more competitive resource allocation systems, came the need for increased public accountability,” and “Government agencies such as the United States Agency for International Development (USAID), as well as multilateral agencies such as the World Bank and the International Monetary Fund, have taken an active role in the fight against global corruption.” The second category encompasses presuppositions of *disorder*: that is, presuppositions that suggest a condition or place of confusion, mess, disturbance, disarray, or muddle. This type of presupposition is triggered by presuppositional discourse stretches such as “As evidenced by scandals in Italy, the United States, Korea, Indonesia, Japan, the Russian Federation, and many other countries, corruption is a universal problem—affecting the economies of both developed and developing societies,” “Corruption has been a constraint to the development efforts of many countries for a long time,” and “Since the events of September 11, 2001, corruption has also become a very important concern for countries fighting transnational terrorism.”

After the data were computed for descriptive and inferential statistics, they were then plotted for oscillations between *order* and *disorder* at the scale of the book. This technique made it possible to show visually the attractor reconstruction for the text.

As shown in Table 1, a total of 3,350 topic entries were teased out of Mbaku’s texts. Of these, I categorize 1,737 or 52 percent as presuppositions of *order* and 1,613 or 48 percent as presuppositions of *disorder*. The mean for the *order* category is about 134 presuppositions, with a standard deviation of approximately 114 presuppositions; the mean for the *disorder* category is about 124 presuppositions, with a standard deviation of approximately 91 propositions. The range for the *order* category is 457 presuppositions and that for the *disorder* category is 283 presuppositions. The variance for the *order* category is about 13,047 and that for the *disorder* category is approximately 8,331. This means that there are slightly more, but not statistically significant, topic entries for presuppositions of *order* than there are for those for *disorder*. Moreover, there are significant variations among the preface and the 12 chapters for each category in terms of topic entries. Nevertheless, given the significant number of presuppositions of *disorder* in every chapter of the text, one cannot therefore assert that Mbaku engaged in “romanticizing” the African condition.

Table 1: Univariate Statistics by Types of Presuppositions in the Text

Chapter	Topic Entries for Presuppositions of Order		Topic Entries for Presuppositions of Disorder	
	N	%	N	%
Preface	15	44	19	56
One:	41	48	44	52
Two:	65	30	155	70

Three:	146	33	302	67
Four:	109	33	218	67
Five:	172	75	58	25
Six:	60	45	74	55
Seven:	160	56	126	44
Eight:	108	70	46	30
Nine:	472	66	248	34
Ten:	168	67	84	33
Eleven:	152	44	194	56
Twelve:	69	61	45	39

**Totals of Scores & Mean**

<b>Percents = 3,350 or 100%</b>	1,737	52%	1,613	48%
<b>Mean</b>	133.62		124.08	
<b>Standard Deviation</b>	114.222		91.272	
<b>Range</b>	457		283	
<b>Variance</b>	13,046.590		8,330.577	

Source: Author-generated data from the text and computed by using MATLAB

From Table 2, it can be seen that there is not a statistically significant difference between the topic entries for *order* and *disorder* at the 0.05 level. Nonetheless, there is a positive and statistically significant correlation between the two dimensions at the 0.05 level.

Table 2: T-Test: Paired Samples Test and Correlations

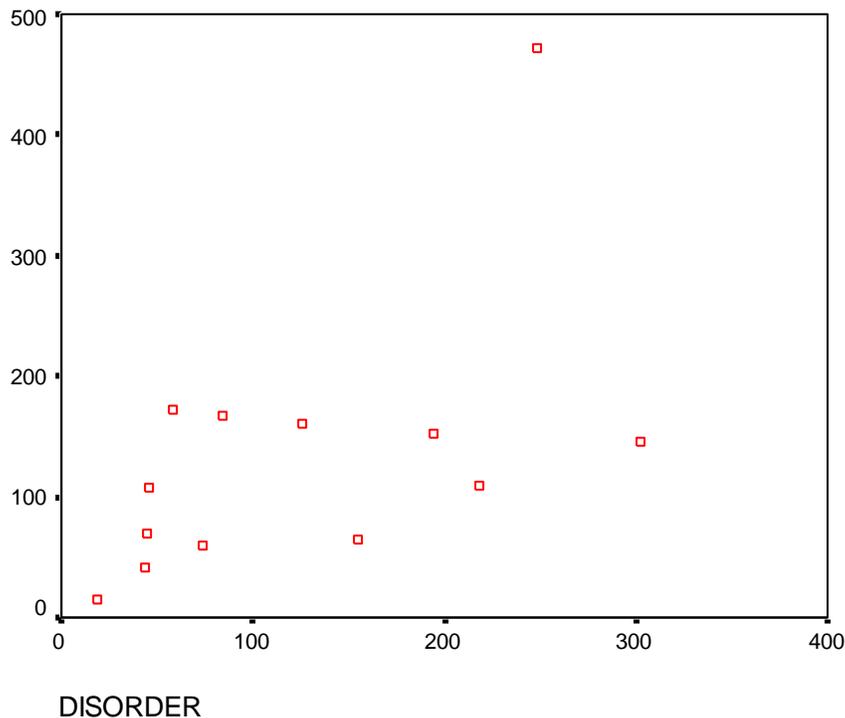
<b>Pair 1: Order-Disorder</b>	<b>Paired Differences</b>
Mean	9.54
Standard Deviation	100.384
Standard Error Mean	27.841
95% Confidence Interval of the Difference	-51.12
	Lower
	Upper
t-Statistic	0.343
Degrees of Freedom	12
Significance (2-tailed)	0.739
<b>Pair 1: Order and Disorder</b>	<b>Paired Samples Correlation</b>
Correlation	0.542
Significance	0.056

Source: Author-generated data from the text and computed by using MATLAB

As can be seen in Figure 1, the data are plotted in a phase space. The plot is neither an orderly periodic oscillation, nor is it simply a random scattering. There is structure here, suggesting that

this could be a slice through a higher dimensional attractor. Would this higher-dimensional attractor correspond to a cognitive structure in the mind of Mbaku? Or, since I was the “signal director” for these data, would it be better to think of them as a “socio-cognitive” structure created through the interaction between the Mbaku and his targeted audience.

Figure 1: Phase Space Portrait Mapping Presuppositions of Order and Disorder



Source: Self-generated data from the texts and computed by using MATLAB

Also evident in Figure 2 is that a log-log plot (or log-log graph) was employed to represent the observed units described by the two-dimensional variable encompassing *order* (y) and *disorder* (x) as a scatter plot/graph. The two axes display the logarithm of values of the two dimensions, not the values themselves. If the relationship between x and y is described by a power law,

$$y = x^a;$$

then the (x, y) points on the log-log plot form a line with the slope equal to a. Log-log plots are widely used to represent data that are expected to be scale-invariant or fractal because, as stated before, fractal data usually follow a power law.

A logarithm is an exponent. It is illustrated in the following definition:

For  $b > 0$ ,  $b \neq 1$  and for  $x > 0$ ,

$$y = \log_b x \text{ if and only if } b^y = x$$

Thus, since a logarithm is an exponent, it is easy to use exponent laws to establish mathematical generalizations.

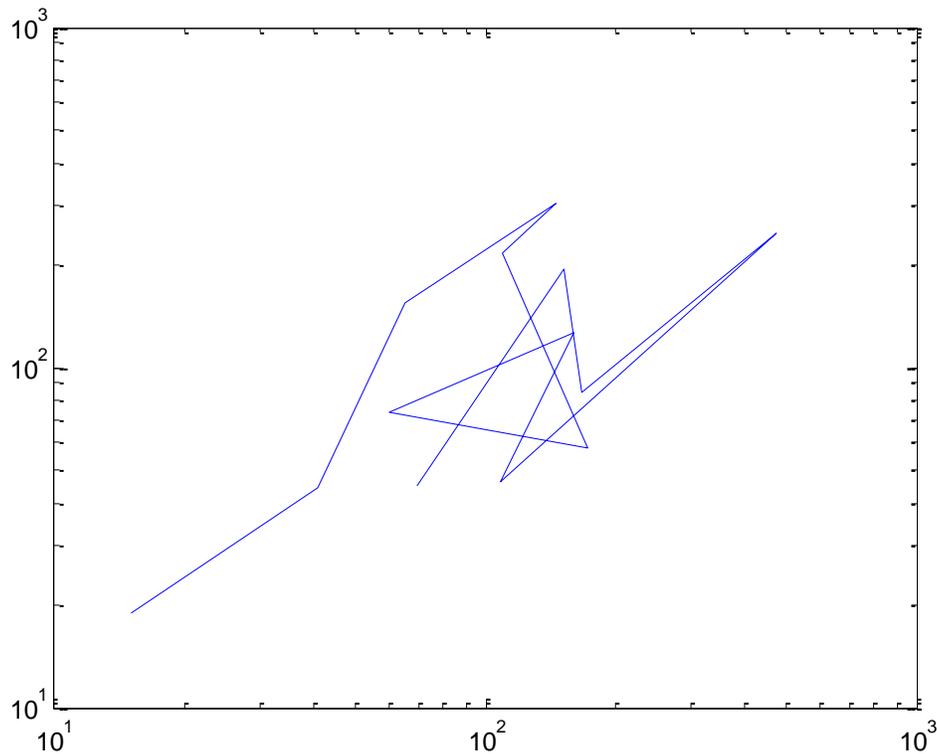
Furthermore, binary logistic regression is used to determine the fractal dimension of the two-dimensionality of the variable because the technique allows one to deal with cases where the observed outcomes of a dependent variable have only two possibilities that are usually coded “0” or “1”: in this essay, *order* and *disorder*. The equation for the model can be represented, with an error term ( $\varepsilon$ ), as follows:

$$\ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X + \varepsilon$$

Figure 2 illustrates that the relationship between the two dimensions is positive and statistically significant at the 0.05 level. In sum, Mbaku’s text typically moves from periodic fractal, rather than stretching all the way to pure order or disorder. In essence, the results generated after the MATLAB computer runs suggest that the combination of negative and positive feedback loops, which form the basis of several African knowledge systems—as Ron Eglash (1999:173-4) suggests, also form a key mechanism of general self-organizing systems discussed in *Corruption in Africa: Causes, Consequences and Cleanups*.

Indeed, the preceding findings seem to suggest that Mbaku can be subsumed into the school of thought I characterize as *âtenu* in Ancient Egyptian/Hieroglyphics or *Mapinduzi* in Kiswahili or Revolutionary in English, as opposed to either the *âtenu m’ÿen* in Ancient Egyptian/Hieroglyphics or *Mapinduzi ya Malazi* in Kiswahili or Revolutionary-Accommodationist in English, or the *kheperu* in Ancient Egyptian/Hieroglyphics or *Kubadilisha* in Kiswahili or Reformist in English, in my paper titled “Pan-Blackist Conceptualizations of the Black Power Paradigm: From Cheikh Anta Diop to Ali Al’amin Mazrui” (2010). I define these concepts in the essay as follows: the term *âtenu* was employed by Ancient Egyptians to describe revolutionaries, rebels or fiends who wanted radical change. Such people were perceived as *Mesti*, the divine parents of the God of Sun or Day Rā; *Mesu*, the gods who begat their own fathers or divine beings; and *Mesut*, children of God Osiris or divine beings. The concept *âtenu m’ÿen* was employed by Ancient Egyptians to refer to those who wanted change but would accept things, listened to, obeyed, or be content with things as long as their burdens were assuaged. The word *kheperu* for Ancient Egyptians described those who sought change in form, manifestation, shape, similitude, or image. It is therefore not surprising that in both Africa and its Diaspora, Mbaku has not been afraid of speaking out against and writing about despotic African leaders.

Figure 2: Log-log Plot Order vs. Disorder in the Text



$$\text{Binary Logistic: } 49.462 + 0.678x + 0.317x^2$$

$$R^2 = 0.2945; p = 0.056$$

Source: Author-generated data from the text and computed by using MATLAB

### Conclusion

The data gleaned from Mbaku's *Corruption in Africa: Causes, Consequences and Cleanups* made it possible to explore fractal patterns embedded in two dimensions: (1) *order* and (2) *disorder*. The substantive findings, as stated earlier, reveal that Mbaku's text typically moves from periodic fractal, rather than stretching all the way to pure order or disorder. It can therefore be suggested that the combination of negative and positive feedback loops, which form the basis of several African knowledge systems—as Ron Eglash (1999:173-4) suggests, also form a key mechanism of general self-organizing systems discussed in *Corruption in Africa: Causes, Consequences and Cleanups*. In essence, Mbaku's framing of his characters' experiences is reminiscent of African ways; despite the challenges and hardship, their thought processes never became completely chaotic. This truism is succinctly captured in the following excerpt from Mbaku's book:

...despite all [the] constraints, it is possible for Africans to overcome the free rider problem and successfully reconstruct the neocolonial state to provide themselves with

institutional arrangements that enhance wealth creation (i.e. minimize corruption) and promote peaceful coexistence of the diverse population groups in each country. The successful overthrow of the apartheid regime in South Africa, as well as various military and civilian dictatorships throughout the continent by grassroots efforts, with assistance from external actors, is testament to the resilience of the prodemocracy movement in the continent. This movement, which traces its roots to the struggle for independence, remains vibrant and continues to work toward greater respect for human rights and the deepening and institutionalization of democracy in all countries in the continent (Mbakw 2007:7-8).

Indeed, as Kofi Nyidevu Awoonor (1990) and I (Bangura, 2002) posit, the African life concept is holistic—i.e. it is based on an integrative world view. All life to the African is total; all human activities are closely interrelated. This has as its underlying principle the sanctity of the person, her/his spirituality and essentiality. This essentialist view of the person confers value to her/his personhood. All else—her/his labor and achievements—flow from this value system. Even personal shortcomings cannot invalidate it.

In addition, Awoonor (1990) and I (Bangura, 2002) point out that for Africans, politics defines duties and responsibilities alongside obligations and rights. All these relate to the various activities that have to do with survival. The survival concept is continuing, dynamic and dialectical. The fundamental principle that is at the basis of this conception is a moral one. Moreover, the African moral order never defined rigid frontiers of good and evil. Good and evil exist in the same continuum. Whatever is good, by the very nature of its goodness, harbors a grain of evil. This is a guarantee against any exaggerated sense of moral superiority which goodness by itself may entail. The notion of perfection, therefore, is alien to African thought. Perfection in itself constitutes a temptation to danger, an invitation to arrogance and self-glorification. The principle of balance defines the relationship between good and evil. As life operates in a dialectics of struggle, so also does good balance evil and *vice versa*.

In traditional African society, there was a lively awareness that ethical obligations extended in time as well as space. The living acknowledged a responsibility both for the dead and for generations yet unborn. Consequently, there were direct connections between religion, ethics and honesty, although the concepts of sin varied and the sources of retribution were diverse. They included the mystical power of senior kinsmen. The basis of ethics was fulfillment of obligation to kinsmen and neighbors, and living in peace with them. Anger in the heart was the root of evil; to avert evil, anger must be admitted.

As isolation diminishes, the range of ethical obligations extends in space and time; there is a growth of individual freedom and responsibility, and a change in family organization. Finally, the effect of increase in scale is an enormous increase in choice facing each individual, and any choice involves ethics.

The greatest danger to Africa's peace, religiosity, and ethics is that the old may disappear, without some new force to take its place. Unchecked individualism, self-seeking, corruption, and materialism are the greatest threats to contemporary Africa. Fortunately, the past has been so thoroughly impregnated with ethics that it is difficult to imagine how a peaceful African society can be established without it.

Thus, the essence of an African-centered approach is that it is imperative and urgent for

Africans to be concerned about broader development as well as approaches to development that are undergirded by humanity or fellow feeling toward others. When African-centeredness is considered along with the idea of the socialization effects of developmental environments and the possibilities of a reinforcement of these notions and contexts, the implications for an African development process appear vital.

Although compassion, warmth, understanding, caring, sharing, humanness, etc. are underscored by all the major world orientations, African-centered thought serves as a *distinctly African rationale* for these ways of relating to others. African-centeredness gives a distinctly African meaning to, and a reason or motivation for, a positive attitude towards the other. In light of the calls for an African Renaissance, African-centeredness urges Africans to be true to their promotion of good governance, democracy, peaceful relations and conflict resolution, educational and other developmental aspirations.

We ought never to falsify the cultural reality (life, art, literature) which is the goal of African-centeredness. Thus, we would have to oppose all sorts of simplified or supposedly simplified approaches and stress instead the methods which will achieve the best possible access to real life, language and philosophy.

## References

- Abdul-Korah, Gariba B. 2010. Review of John Mukum Mbaku's *Corruption in Africa: Causes, Consequences and Cleanups*. *Journal of Third World Studies* xxvii, 2:305-308.
- Arthur, Peter. 2008. Review of John Mukum Mbaku's *Corruption in Africa: Causes, Consequences and Cleanups*. *Canadian Journal of African Studies* 42, 1:188-190.
- Awoonor, Kofi Nyidevu. 1990. *Ghana: A Political History*. Accra, Ghana: Sedco Publishing Ltd. and Woeli Publishing Services.
- Bangura, Abdul Karim. 2010. Pan-Blackist conceptualizations of the Black Power paradigm: From Cheikh Anta Diop to Ali Al'amin Mazrui. Proceedings of The International Black Power Conference on Reflections, Relevance and Continuity: Caribbean and Global Perspectives of Black Power convened by the University of West Indies St. Augustine Campus, Trinidad and Tobago, September 18-19, 2010:1-66.
- Bangura, Abdul Karim. 2008. *African Peace Paradigms*. Dubuque, IA: Kendall Hunt Publishing Company.
- Bangura, Abdul Karim. 2005. Ubuntugogy: An African educational paradigm that transcends pedagogy, andragogy, ergonagy, and heutagogy. *Journal of Third World Studies* xxii, 2:13-53.
- Bangura, Abdul Karim. 2002. *Sojourner-Douglass College's Philosophy in Action: An African-Centered Creed*. San Jose, California: Writers Club Press.
- Bangura, Abdul Karim. 2000. *Chaos Theory and African Fractals*. Washington, DC: The African Institution.
- Brown, Clifford and Larry Liebovitch. 2010. *Fractal Analysis*. Thousand Oaks, CA: Sage Publications.
- Brown, Gillian and George Yule. 1983. *Discourse Analysis*. Cambridge, UK: Cambridge University Press.

- Chafe, Wallace L. 1972. Discourse structure and human knowledge. In R. O. Freedle and J. B. Carroll (eds.). *Language Comprehension and the Acquisition of Knowledge*. Washington, DC: V. M. Winston.
- Conner, Andrea and E. Ike Udogu. 2008. Review of John Mukum Mbaku's *Corruption in Africa: Causes, Consequences and Cleanups*. *Journal of Asian and African Studies* 43:579-584.
- Davis, Philip J. 1993. *Spirals: From Thoeodorus to Chaos*. Wellesley, MA: A. K. Peters.
- Eglash, Ron. 1999. *African Fractals: Modern Computing and Indigenous Design*. New Brunswick, NJ: Rutgers University Press.
- Frege, Gottlob. 1892/1952. On sense and reference. In P. T. Geach and M. Black. *Translations from the Philosophic Writings of Gottlob Frege*. Oxford, England: Blackwell.
- Grice, Herbert Paul. 1975. Logic and conversation. In P. Cole. (ed.). *Syntax and Semantics: vol. 3: Speech Acts*. New York, NY: Academic Press.
- Hargittai, István and Cliff A. Pickver. (eds.). 1992. *Spiral Symmetry*. Singapore, Malaysia: World Scientific Publishing Company.
- Kates, Carol A. 1980. *Pragmatics and Semantics: An Empiricist Theory*. Ithaca, New York: Cornell University Press.
- Levinson, Stephen. 1983. *Pragmatics*. Cambridge, UK: Cambridge University Press.
- Mazonde, Isaac and Pradip Thomas, eds. 2007. *Indigenous Knowledge Systems and Intellectual Property in the Twenty-First Century: Perspectives from Southern Africa*. Dakar, Senegal: Council for the Development of Social Science Research in Africa (CODESRIA) Publications.
- Mbaku, John Mukum. 2007. *Corruption in Africa: Causes, Consequences and Cleanups*. Lanham, MD: Lexington Books.
- Mokhtar, G. 1990. *Ancient Civilizations of Africa*. Berkeley, CA: University of California Press.
- Nabudere, Dani W. 2003. Towards the establishment of a Pan-African university: A strategic concept paper. *African Journal of Political Science* 8, 1:1-30.
- Shuy, Roger W. 1982. Topic as the unit of analysis in a criminal law case. In D. Tannen. (ed.). *Analyzing Discourse: Text and Talk*. Washington, DC: Georgetown University Press.
- Steen, Lynn A. (ed.). 1988. *Introduction to Contemporary Mathematics*. New York, NY: W. H. Freeman and Company.
- Strawson, Peter F. 1952. *Introduction to Logical Theory*. London, England: Methuen.
- Winters, Clyde Ahmad. 1998. The Afrocentric historical and linguistic methods. *The Western Journal of Black Studies* 22.

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