

TRANSFORMATION STUDIES:



RESEARCHING AFRICA WITH AFRICAN EYES



Delivered by

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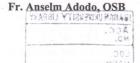


July 25, 2018



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1.1 Introduction amended lo eldel

The first part of African liberation story was the 'successful' struggle for political independence from the colonial powers. The second part was the era of independence when power 'successfully' shifted to the African nationalists. Commitment to development was already implicit in the ideology of the nationalist movement. The writings of such leaders as Leopold Senghor (1964), Julius Nyerere (1979) and Nkrumah (1970) expressed the urgent need for African societies to become more competitive in the modern state system, a need often crudely expressed as "catching up with the West". African leaders adopted the ideology of development to replace that of independence. However, the doctrine of development was merely exploited as a means for reproducing political hegemony; it got limited attention and served hardly any purpose as a framework for social transformation (Ake, 1999).

This paper argues that the third part towards African emancipation is for the common people of Africa to free themselves from their leaders (Sankara, 2007). African leaders, from Zimbabwe to Uganda, Cameroon, Liberia, Burundi, Togo, Nigeria, Ivory Coast, Senegal to Benin Republic, Kenya and the Democratic Republic of Congo, to mention a few, have obviously betrayed the trust of their people. They have succeeded in appropriating state wealth to their own private pockets and lack the will, skill and sincerity to govern and transform their countries (Ake, 1999; Burgis, 2016). It is therefore evident that Africans should not expect much from their leaders and must now learn to free themselves from the greed of their leaders (Lutz, Shimiyu and Osengo, 2011). Civil wars or violent protests, as we saw in the so-called Tunisian and Egyptian uprising, cannot make this happen. This paper posits that a more systematic approach, that evolves from the ground up, naturally and culturally, technologically and economically, within functional polity, is the most efficient and sustainable way to transform Africa. The theory and practice of such an approach is

the basis of the new curriculum on Transformation Studies in Africa (TSA).

The world has not failed to appreciate the zeal and passion with which the African elite pursued the myth of the Independent nation-state in the 20th century (Chinweizu, 1975). In the 21st century, knowledge-driven sustainable development must be pursued more forcefully to narrow the growing knowledge divide, which will not be achieved in large parts of Africa without a profound reform of knowledge (Mamukwa, Lessem and Schieffer, 2014). African societies must seriously take up the tremendous knowledge challenges they face. They must invest massively in knowledge to improve the social soil and environment on which it grows, keep abreast of knowledge development, set in motion dynamic knowledge-creating processes, reduce knowledge deficits, free knowledge from impurities, strengthen knowledge infrastructures and institutions, fight knowledge obsolescence and increase knowledge performance. They must embark on a new adventure of knowledge leading to the integral knowledge-led sustainable development and transformation of Africa.

There are in Africa and other parts of the world brilliant individuals who have done marvellous research work and have produced excellent academic works in various fields of research. Most of these individual researchers often die unknown; some are frustrated due to lack of a platform to give flesh to their theories, while some just lose interest in academic work and focus on 'more important things'. For African philosopher Paulin Hountondji (2002), this is one of the saddest features of knowledge creation in Africa. African intellectuals in diverse fields research for the sake of research: research that contributes little or nothing to societal development. The result is that their research works end in beautifully written dissertations and publications that gather dust in libraries. Transformation Studies aims at reversing this trend by emphasising a research-to-innovation process that leads to social innovation in theory and practice.

This paper explains how and why this systematic approach to transformation is essential, and the research method and methodology needed to apply and sustain it.

1.2 A Look at the Past: African Civilisation before Colonialism

Studies have shown that at the beginning of the 15th century (which also marked the beginning of the transatlantic slave trade), the gap between the developed areas of Europe and Africa was minimal (Sertima, 2003). Walter Rodney (2012) cites the reports of the first Europeans to reach West and East Africa by sea, and their surprise at the level of physical and economic development they saw. The streets were said to be well arranged with interconnecting road links that showed evidence of a well thoughtout structural design, and there was no litter on the roads. The buildings were clean and neat, and the roads very broad (Walter, 2012; Davidson, 1998).

Rodney argued that the relationship between Europe and Africa from the 15th century till the 20th century was that of unequal partners, a very lopsided relationship which benefited Europe far more than it benefited Africa. In fact, according to him, Africa helped to develop Europe in the same proportion as Europe contributed to underdevelop Africa. Fast-track to 2018, Africa's underdevelopment trend continues in another guise, through the narrowmindedness and greed of the political elite and miseducation of the younger generation (Davidson, 1994; Woodson, 2010).

British, Portuguese and French explorers were taken aback when they came to East and West Africa and found well-established empires such as the Songhai, Mali, Hausa and Oyo empires with well-organised political and social systems, artworks, sculptors and music (Diop, 1989). Colonial Governor-General of Nigeria, Lord Lugard, noted that in 1904 there were over 200 walled towns in the Kano province of Northern Nigeria. Kano used to export millions

of sandals to England in the 1800s (Walter, 2012). In fact, Kano was said to ship an estimated 10 million pairs of sandals to Europe in 1851 (Pearce, 1999; Bridges, 2018). The wall around the Nigeria city of Benin, estimated as totalling 10,000 miles in all, was comparable to the Great Wall of China (Lawton, 2018).

In 1331, Ibn Battouta, the Morrocco scholar and world traveller, described the Tanzanian city of Kilwa, of the Zanj, a Swahili-speaking people, as extraordinarily organised and well-planned, and was for him one of the most beautiful and attractive cities in the world. Kilwa is said to date back to the 9th century and was at its peak in the 13th and 14th centuries (Windsor, 2003; Adams, 1983). This international African port minted its own currency in the 11th-14th centuries. Remains of artefacts link it to Spain, China, Arabia and India. The inhabitants, architects and founders of this city were not Arabs, and the only influence the Europeans had in the form of the Portuguese was to mark the start of their decline, most likely through smallpox and influenza (Brooks, 1971; Walker, 2014).

West Africa in the 14th century was a thriving and prosperous civilization (Sertima, 1983). Yoruba civilization bloomed and flourished and the Yoruba landscape was adorned with numerous walled cities surrounded by farms in Oyo, Ijebu, Ijesa, Ketu, Popo, Egba, Sabe, Dassa, Egbado, Igbomina, Ekiti, Owo and Ondo. (Smith, 1976; Lapite and Adafa, 2016). Yoruba and Benin art stood in comparison to the best from Egypt, Rome, Greece and Athens (Gomez, 2018; Ellis, 2014).

Historian, Ivan Van Sertima (2003), lamented that so much attention has been given to Egyptian civilisation while the world completely overlooks the significant contributions of East, West and Southern Africa. Some Eight thousand years ago, present-day Democratic Republic of Congo had their numeration system, just like the Yoruba of Western Nigeria. The Yoruba system was based on units of 20 (instead of 10) and required an impressive

amount of subtraction to identify different numbers. Scholars have lauded this system, as it demands much abstract reasoning (Zaslavsky, 1983). As early as 300 BC, an African Stonehenge, reported to have been constructed in what is now Kenya, was used as an accurate calendar to record events (Lynch,1978; Jackson and Huggins, 2015). From Tanzania to Uganda and Rwanda, there was evidence of advances in technology and innovation in East Africa some 2000 years ago (Shore, 1983; Kresge, 2011). In 12th-century Zimbabwe and Mozambique and other parts of Southern Africa, there were hundreds of great cities (Asante, 1983; Oliver, 2013).

1.3 A Resource-Rich Africa: A Curse or Blessing?

Africa has over 90% of the world's reserve of cobalt (used in electroplating and colouring ceramics and glass and trace elements in fertilizers and paint), 80% of the world's reserve of chrome (used in steel and stainless steel to increase corrosion resistance), over 50% of the world's reserve of gold, 50% of the world's reserve of platinum and over 70% of the world's reserve of diamonds (Rogers, 1995; Geissler and Lachenal, 2016; Adelaja, 2017). That is not all. Africa has over 70% of the world's reserve of uranium, without which generation of nuclear power would not have been possible, while Africa's share of natural gas is fast expanding. Africa's percentage of the world reserve of oil is not less than 30%, while her percentage of the world's reserve of radium is over 90% (Davidson, 1995; Diop, 1989).

In terms of gems and precious metals, Africa has over 80% of the world's tantalum (used for corrosion-resistant chemical equipment, dental and surgical instruments), and vast deposits of manganese (used in fertilizers, textile printing, chemical reagents and raw materials), copper, vanadium, lead, zinc and phosphates (Banini, 2011). Over 70% of the world's deposit of potash is found in Africa. The biggest beneficiary of all this mineral wealth is the west and its industries. In addition to being the main consumer of Africa's mineral wealth, the west is the main manager of that wealth (Rodney, 2012). As late as the 1940s, Europe still depended

on their African colonies for survival. West African exports were crucial for Britain at the time. Records show that in 1947-48, Ghana alone earned \$72.1m for Britain from cocoa exports to the USA (Ake, 1979).

In the area of agriculture, Africa's palm-trees are the most healthy and nutritious in the world. African fruits such as mangoes, cashew, pawpaw, banana and citrus are the most nutritious and nourishing on this planet. African mistletoe, especially the ones that grow on guava, cocoa and kola nut trees, contain the highest concentration of lectins, alkaloids and viscotoxins which are known to have anti-cancer effects (Smith, 2018).

Regarding human resources, Africa does not lack in heroes and geniuses. The very first scientist in recorded history was an African named Imhotep, who was an adviser to the Pharaoh Dioser of the third Egyptian dynasty, and builder of the world's first pyramid (Bauval and Brophy, 2013; Hudson, 2013). The idea of a blood bank was pioneered by Dr Charles Richard Drew (1904-1950), an African born in America (Rogers, 1996). His approach brought a great revolution in the medical world and saved millions of lives. The first person to operate on the human heart was Daniel Williams (1856-1931), son of African slaves brought to America. Daniel Hale Williams made history by performing the first successful open-heart surgery in 1893 (Yount, 1992). Long before the advent of colonialism, medicine was well advanced not only in Egypt but also in western and eastern Africa, especially in presentday Nigeria, South Africa and many others (Sertima, 1983). According to Woods (2000), medical procedures such as vaccination, autopsy, limb traction and bone setting, bullet removal, brain surgery, skin grafting, filling of dental cavities, installation of false teeth, Caesarean section, anesthesia and tissue cauterization were performed in ancient Africa before they became known in Europe.

An African, Garret Augustus Morgan, invented the traffic light in 1923. Morgan was also the inventor of the gas mask, which was used by the US army and later all over the world (Sullivan, 2011). McCoy Elijah (1843-1929), an African, invented the steam engine lubricator which allowed locomotive engines to be lubricated while in motion in 1872 (Abdul-Jabbar and Obstfeld, 2013).

1.4 The Rise and Fall of African Civilisation

Before the 15th century, Europeans had little direct contact with or knowledge of Africa. For centuries Europeans traded with Africans along Africa's coasts. They did not attempt any foray into the interior (Wood, 2017). When the European powers divided Africa into spheres of influence in 1885, it was under the pretext of bringing civilisation to the barbaric Africans, whereas the real aim was the imposition of imperialism, it was presented as a good campaign to bring the benefits of civilisation to the supposedly wretched Negro savages (Davidson, 1998).

For centuries, it was a deep belief in America and Europe that the despised black men of Africa had languished in savagery for thousands of years (El Cozmo, 2015). This myth continued even till the 20th century (Walker, 2011). In 1952, Lord Milverton, a former colonial governor of Kenya, said that the Africans are the only race that remained stagnant in primitivity while the rest of the world was developing culturally and economically (Paxman, 2012).

Whole generations of African schoolchildren were taught that they had no past. European attitudes about Africans developed into a complex set of derogatory myths. Africa was depicted as a Dark Continent of jungles and wet, mysterious swamps, and Africans were thought of as savages with no history and no culture (Williams, 1994). European ignorance of the African interior contributed to the myth of African inferiority, but the slave trade played the more active role in creating these myths.

Trading in slaves has been an ancient business venture. Europeans did not start the slave trade. African societies had sold slaves to each other for centuries and exported to North Africa and Asia across the Sahara and through Ethiopia and the Azanian ports (Davidson, 1994). However, the flow of slaves across the Indian Ocean was very minimal compared with the transatlantic trade. Slaves had always been well treated in antiquity; they could marry and own property. Some were employed as bodyguards to kings and were given responsibilities (Ferguson, 2004; Woods, 2017). It was the sheer volume of the slave traffic across the Atlantic and the brutality with which African slaves were treated that rendered the European slave trade fundamentally different from anything that took place within Africa itself. In contrast to the transatlantic slave trade, the Indian Ocean slave trade was much older dating back from at least the second century BC and continuing until the early twentieth century. Slaves were taken from mainland East Africa and sold in markets on the Arabian Peninsula and the Persian Gulf (Ake, 1995).

1.5 The globalisation of Slavery

Most historians agree that it was European capitalism that set the transatlantic slave trade in motion, and though some African chiefs and notables took active part in it, the primary responsibility should rest squarely on the shoulders of the Europeans who gave impetus to the so-called trade (Franklin, 1994; Diop, 1987; Williams, 1994; Ferguson, 2004). The rise of the British Empire started in 1663 with the conscious plundering of other people's valuables. It was at first directed at Britain's rivals, especially Spain and Portugal. But as the empire expanded and grew in wealth, it made a foray across the Atlantic and into Asia and Africa.

Rodney (2012) cites the example of John Hawkins, a British slave trader and Naval commander-cum-businessman, who made three trips to West Africa in the 1560s and stole Africans whom he sold as slaves to the Spanish in America. The profit he made was so

huge that Queen Elizabeth 1 became interested in investing in the business. She provided a special ship for the venture under the supervision of Hawkins. The ship, ironically and cynically, was code-named 'Jesus'. Hawkins left for Africa with 'Jesus' to steal more Africans. The profit from the 'Jesus' business was so huge that Queen Elizabeth 1 made Hawkins a knight (Ferguson, 2004; Johnson, 2000).

In a similar vein, American economic development up to the mid-19th century depended to a very large extent on foreign commerce, which was centred on slavery (Wood, 2017). For example, in the 1830s, slave-grown cotton accounted for about half of the value of all exports from the USA to Europe (Davidson, 1995). Apart from retarding Africa's development, slavery also ensured not only a climate of insecurity and destabilisation for over 400 years, but also a massive depopulation of the continent.

Enslaved and put to work in very harsh conditions, the Africans played the role of industrial machines and helped to kick-start the western revolution. In the West Indies, African slaves were *used* in the plantations to produce high-value products such as sugar, cotton, indigo and cocoa, for exportation to Europe. According to Williams (1994), by 1750, virtually every trading town in England was directly connected with the colonial slave trade, and the profits from the business helped to finance the industrialisation of Europe.

By the 19th century, Britain had conquered over ten thousand African kingdoms and forcefully merged then into just forty states. According to Ferguson (2004), it was the most dramatic redrawing of a continent ever witnessed in human history. By mid-19th century, the European scramble for Africa became so fierce and competitive that the entire continent was under European rule (Walvin, 1992).

1.6 Globalisation, Capitalism and Money

How was Britain, a small collection of islands near the north-west of Europe, able to conquer and govern a quarter of the world's population and dominate almost all its oceans, and become the biggest empire in the history of humankind? Undoubtedly, Britain's human capital, education and technology played a significant role in this feat. It must be borne in mind, however, that the British Empire did not attain greatness simply by a well-thought-out outreach. Though Britain became a world power, its vast wealth was built on oppression and exploitation. The motivating factor for British expansion was profit, money and greed rather than collective good (Thomas, 2006; Walvin, 2018).

Globalisation did not happen naturally. Instead, it was imposed by force, under intense criminality, violence and self-interest. While globalisation may have been possible as a voluntary international system of multilateral cooperation, it was in fact a result of coercion by the dominant powers in the world in favour of economic liberalism (Ferguson, 2004). In other words, globalisation was actively imposed by the world's economic powers. In its fundamentals then, globalisation and capitalism are faulted as being more in favour of greed, money and self-interest than of the human person.

In principle, globalisation and its ideal of open and free market promote wealth and raises standards of living worldwide. In reality, it effectively strengthens only the strong and powerful nations and leaves the poorer ones poorer and weaker (Stigliz. 2007). Globalisation focuses attention on the flow of commodities, capital and labour. With this, ready-made goods are transported to consuming nations of the third world, cheap labour and raw materials are sourced from poorer countries to the rich, manufacturing countries (Chang, 2008). It is instructive to note that when European and American governments preach globalisation, they say very little about the transfer of knowledge and technology, and of culture and institutions. They compel the weaker nations of Asia and Africa to open up their economy to trade. Of course, what they mean is that the weaker nations should open their borders to receive ready-made goods manufactured in the rich and powerful nations and make their raw materials readily available for exploitation and exportation to the more developed countries.

In 1893, Cecil Rhodes, a British mining businessman who later became prime minister of the Cape Colony of Southern Africa, masterminded the massacre of thousands of Matabeles of Southern Africa and forcefully took over their land. The issue at stake is Matabele land, an area with a vast deposit of gold, worth millions of British pounds. The primary obstacle was Lobengula, the king of Matabele, who was not willing to surrender the sovereignty of his land and his people. After all diplomatic efforts to hoodwink Lobengula into submission failed, Rhodes, with the full backing of the empire, led an invasion force.

Lobengula had developed a highly organised, powerful and dreaded army, about 5000 strong. So confident and gallant were they that Lobengula feared no nation or army. In 1893, Rhodes' army of 700 invaded Matabele to confront Lobengula's 5000 strong armies who were armed with bows, arrows, knives and other obsolete weapons. It turned out that Lobengula's 5000 men were no match for Rhodes men as they wiped out nearly all the 5000-strong army. The secret was the Maxim gun, a self-powered machine gun named after its American inventor, Sir Hiram Maxim in 1884.

The firepower of the Maxim gun is equivalent to that of 50 rifles. The battle of Matabele witnessed one of the earliest recorded uses of the Maxim gun. In one encounter, 50 soldiers with just four guns wiped out over 1500 Matabele warriors (Ferguson, 2004). The Maxim gun contributed in no small measure to the rapid military and political conquest of Africa in the 19th century (Wills, 2018). The tactic was to lure native opponents armed with their obsolete weapons to vast open terrain, where bullets could be rained on them.

In 1807, the slave trade in the British colonies was abolished and it became illegal to carry slaves in British ships (Carey and Kitson, 2007; Reddie, 2007). This was only the beginning: the ultimate aim was the abolition of slavery itself, which finally took place in 1833. In reality, the slave trade continued right into the late 19th century, and its effective abolition is said to be as a result of the heroic efforts of a Scottish botanist, John Kirk (Hazell, 2012).

1.7 The African Paradox

How is it that the very people who discovered the elements of the arts and the sciences are now the most backward race in the world? How is it that a race that founded the study of the laws of nature, of civil and religious systems which still govern the universe, is now rejected as an insignificant addendum to world map? How is it that the very people who had given the world civilisation—a people whom the Greeks had looked to with admiration—became the most humiliated and brutalised race, a race of slaves and outcasts, asks Charles Finch (1990), an African-American scientist and historian. When and how did a race of inventors and manufacturers become traders and passive consumers of western technology?

Looking at the Africa of today, what is apparent is not the growth of basic and mature engineering, automation, post-harvest preservation, food processing and packaging technologies, infrastructural developments, social amenities, oil management technology and water technology, all of which are vital for poverty eradication. Instead, what is more evident is the spread of dogmatic/religious knowledge, the extraordinary sprouting of churches, Pentecostalism and piety, which demands absolute and unquestioning submission to revealed 'truths', and discouragement of reason, dissidence and logic. What is outwardly evident to a traveller in Nigeria, for example, are not sites of new manufacturing factories, sprouting of small-scale industries or centres of excellence for research and information technology. The only visible activities seem to be in the religious sphere, where

new, gigantic churches are being constructed, millions of new churches mushrooming, and huge billboards and media advertisements of miracle crusades, prosperity vigils and 'spiritual war'.

Excessive religionism and spiritualism may be one of the biggest obstacles to the progress of African nations. Moreover, the most significant challenge facing Africa today may well be her ability to cultivate a mindset steeped in chemistry, mathematics and physics and still maintain a reasonable and balanced approach to religion (Adodo, 2017).

Many African nations are yet to upgrade, renew and evolve their knowledge bases. They find a lazy and easy excuse in referring to times past, the 'good old days', to ancient ways of life that are not compatible with modern realities. Others blame colonialism, capitalism, civilisation or modernity. It is true that we were once enslaved; it is true that some capitalist foreigners invaded our land and ruled over us and exploited our natural resources for selfish gains. But were we the only race that was colonised? And how long shall we continue to blame other people for our woes? Is it not time we courageously face our problems and see them as challenges for growth? We study the past, not so as to be stuck there, but to understand the present, and find a pathway into the future.

1.8 Science without Substance

European colonisers did not introduce science into their overseas territories because they wanted their subjects to become scientists. Their aim was rather to teach *peripheral science*, an impoverished science deprived of an inner qualitative element that could give rise to transformative research. As a result, science in the colonies, according to Hountondji (2002), was marked by theoretical emptiness. First, there was the frantic accumulation of facts and data, which begins the scientific enquiry. And then followed the last stage, which was the application of theoretical findings to

practical issues. But the most important stage, the stage that comes between them, was lacking. This middle stage, the interpretation of raw information, the theoretical processing of the data collected, and the production of those particular utterances which we call scientific statements, took place in the colonisers' home countries. Deprived of the will to transform, peripheral science lacked the very context, character and powers of co-creation that made capitalist and scientific endeavours productive in the colonisers' own country (Mungazi, 1991; Mutua and Swadener, 2004).

This explains why education in African countries has never been a bastion of innovation, productivity and inventiveness. University education has three dimensions: form, process and content. Form which is the focus of almost all discussions about university education in Nigeria - refers to a university's physical structures, bureaucratic systems, salary and finance systems and organogram. Process refers to the relationships between vice chancellors and lecturers, between students and lecturers, and between the university and the host community as well as the society at large. The third dimension is content, which refers to the curriculum and the literature used in teaching. A look at the content of Nigeria's university curricula indicates that colonialism is still very much alive and active, and true independence is still far off. In my view, university education is the most colonised aspect of African life. Each year we churn out graduates who lack knowledge of their history, have no appreciation for their tradition, and who see reality through the prism of western reality. This paper argues that decolonisation of our university curricula and literature is the most urgent reform of education that is needed in Nigeria and Africa. One looks forward to the day when strikes in Nigerian universities will not just be about money and finance (form), but also about morality (process) and the quality and structure of the curricula (content).

1.9 Between Sanity and Madness: A Distorted Education

Orr (1994) described an eighteenth-century psychiatrist who developed an ingenious method of distinguishing the sane from the insane. He locked those to be diagnosed in a room with water taps on one side and a supply of mops and buckets on the other. He then turned on the taps: the mad ones ran for the mops and buckets while the sane quietly walked up to the taps and turned them off. The 'mop and bucket' mentality is so prevalent in our society today that it is taken to be the norm. Heavily dressed professionals and so-called experts receive fat salaries for providing 'mop and bucket' solutions to problems of education, economics, governance, health and environment. Our society has failed to distinguish between cleverness and intelligence, between 'know-how' and 'know why'.

Our over-emphasis on specialisation has led to a proliferation of 'experts' who can only think in one direction and lack a holistic view of life. They cannot see the link between finance and ecology, between mathematics and spirituality, between engineering and the sound of the ocean, between oil exploration and a healthy eco-system (Riley, 2002; Robinson and Aronica, 2016).

Nigerian students passed out of universities with a distorted view of self, of reality, of nature and the cosmos. Some of these students score high in their examinations and are then regarded as 'experts'. They are seen as brilliant and talented. They have the technical know-how but cannot ask the more profound questions of life. University education provides them with answers without knowing what the questions are.

One of the grand illusions of our time is the myth that the primary purpose of education is to give students the means for upward mobility and success. Most students are brainwashed to think that the reason why they go to school is to get a career. Also, that the inevitable means is to acquire paper certificates. Our society prides acquisition of degrees over holistic and integral development. It is no wonder that our education system in Nigeria is so examinationoriented. Even infants in kindergarten are expected to sit and 'pass' exams.

The goal of education is not just a mastery of subject matter but mastery of one's person (Orr, 1994; Berry, 1999). The purpose of education is not to stuff facts, techniques, methods and information into the students' mind but rather to teach them how to use ideas and knowledge to develop their characters and personalities. Proper education should help students to find a decent calling or vocation, not just a career. A career is a job, a way to earn one's daily bread. It is a ticket to something else. A calling is about life, personhood, values and one's vocation and gift to the world—it is about the transformation of self, society and others. It comes out of one's inner convictions. A career can always be found in a calling, but hardly the other way around (Orr, 1994).

1.10 Preserving Indigenous Knowledge

The Nigerian youth know the latest news on soccer in the English premier league. They can tell when Manchester United is playing Chelsea. They can even predict who will win and at what margin. They know, thanks to the cable news network, if internet TV and satellite TV, how many soldiers are killed in Iraq daily, and how many suicide bombings occur and how many people are kidnapped by militants. They know the countries with the most relaxed immigration rules. When asked what the health benefits of banana is, or how does bush burning affect the productivity of the soil, or what a balanced diet is, there ignorance is alarming.

Nigerian youths are acquiring information about other places and lands while losing knowledge of their land, their environment, their culture and their people. No nation can genuinely develop until it develops its deposit of local knowledge, preserve it and nurture it. Real and lasting development is that which is homegrown and not imported from other lands. Sustainable and

affordable technology must be based on indigenous knowledge. The best solution to a nation's problem is that which comes from within, not from without.

In many indigenous societies, when a knowledge-bearer dies his knowledge dies with him. Indeed, much knowledge is being lost, the knowledge that appears to be worthless, mainly because it is not adequately valued. There is a need to protect endangered knowledge as a world heritage. Today, we speak of protecting our environment from abuse, and also about protection for rare species of plants and animals. However, equally important is the need to set up international efforts to protect and preserve indigenous knowledge. With every old person that dies in our villages, a whole library of books is lost (Adodo, 2017). We must, therefore, protect our indigenous knowledge, especially development knowledge.

The idea of technology transfer could be deceptive. From our knowledge of history, there have been three ways of acquiring technology: it is either stolen or bought or locally developed. No nation transfers her technology to other countries free of charge.

One of the main ideas behind the creation of foreign diplomatic missions was to acquire knowledge about different countries. In fact, such countries as the United Kingdom, USA and Russia 'embedded' professional spies among their diplomatic corps whose mission, among others, was to gather intelligence for onward transmission to their home countries. These 'spies' get information about innovations in various disciplines such as agriculture, engineering, medicine and nuclear science, and pass it on to their home governments. Other countries such as Japan, India, China, Malaysia and other emerging economic powers have been able to effectively use their foreign missions as intelligence gathering tools for sustainable development in their home countries. The rapid growth of Malaysia and India, among others, is as a result of effective information transfer and intelligence gathering system.

African nations should borrow a leaf from these countries and desist from seeing their foreign missions as a mere bureaucratic system whose work is only to host dignitaries, organise lavish cocktail parties, and waste public funds in organising irrelevant conferences that have no development benefits.

1.11 Functional Knowledge

Functional knowledge refers to knowledge as an asset, skill, an advantage, a tool. It is not an end, but a means. It relates to economic knowledge or know-how. It is knowledge of how to transform knowledge into goods and services. Functional knowledge creates, adapts and uses knowledge effectively for its economic and social development. The most important thing for a nation is not its natural resources but its ability to create knowledge to transform its society and make available the necessities of life. Knowledge in this context is grossly neglected and underused in Africa. Most often, it is wasted. It is one major cause of underdevelopment in Africa and why Africa is the most backward continent in the world (Msila, 2017).

Knowledge is a process, a continuum, always evolving, becoming, flowing, emerging, and dynamic. It is always flowing. It cannot be monopolised, blocked, tied-down or controlled. Knowledge upgrades and renews cultures open to it and eliminates those ill-disposed to it. It has its inner dynamism, flow and logic. It has its way of spreading and is unpredictable. It is the force behind historical and social changes. As knowledge evolves, society changes, institutions change, people change; inferior knowledge (regarding know-how and effectiveness) gives way to superior knowledge. Knowledge for development has a universal character even as it creates local identities.

Much of African culture is backward-looking and static, and this is keeping over 70% of Africans in poverty. It lacks innovation and dynamism, and projects culture as a static, unchangeable way of life rather than an evolving and changing interaction of intelligent beings in society, thereby widening the gap between the African continent and the rest of the world.

Consider this: while there has been a rapid, breathtaking technological innovation in the field of medicine, there has not been a corresponding change in the medical curriculum in Nigerian universities. That means that the medical curriculum in Nigerian universities has undergone very minimal change in the past 30 years. A course in business administration, for example, is done the same way as it is done in, say, an American university as if the student is an American. A law curriculum is arranged in such a way that pre-eminence is given to the study of laws that originated in Europe. The public administration curriculum in African universities was designed by European colonisers based on the colonial set-up they had in place to help them train Africans in managing the colonies (Mungazi, 1991). Ironically, the curriculum is still very much as it was handed over by the colonisers, with minimal change after over 60 years.

Most of the African countries are not developing not only because they lack relevant modern development knowledge but also because they are inundated with the irrelevant knowledge that keeps them from developing. Modern knowledge needs to be increased and anti-development mythological knowledge reduced. Rather than relying on foreign aids and foreign NGOs, Africa must take ownership of her future by improving her knowledge bases.

1.12 Decolonising Knowledge Creation in Africa

For Zimbabwean scholar, Ndlovu-Gatsheni (2013), the process of unifying Africans into a collective community to pursue common ideological, economic and political ends has not been successful. What is disturbing, for Ndlovu-Gatsheni, is that the pluralistic and civic nationalist traditions of the 1950's and 1960's has increasingly degenerated into nativism, xenophobia, and, in extreme cases, into genocide. The roots of these negative aspects are traceable to the ontology of nationalism as an identity

phenomenon seeking to create a "nationalist" state as a successor to the colonial state. The colonial state on which the postcolonial one is based was profoundly racist and violent. African nationalism followed in such exclusivist footsteps. What has worsened the degeneration of African nationalism into nativism and xenophobia, according to Ndlovu-Gatsheni, is the globalisation process that provokes deep uncertainties. Deepening poverty and diminishing resources have heightened struggles over resources and also increased reliance of the poor on the state. As history has shown. such top-bottom approach to development, characterised by neglect and subjugation of nature, culture and community, may never work in the African setting. Paradoxically, the African ruling elite is quite happy to sustain this doomed method of development because it benefits them and keeps the means of control in their grip. The ruling elite is scared of an economic model that gives power to the peasants and rural peripheries.

Adodo (2017), in his seminal work on Integral Enterprise, argues that there is no evidence in Africa that violent revolutions have worked or will work. Therefore, while Marx and his African admirers, such as Frantz Fanon, Patrice Lumumba, Jerry Rawlings and Thomas Sankara are right in their analysis of the sociology of oppression and exploitation ingrained in African political systems, they could not offer sustainable and workable solutions. Fanon (2001) had, in fact, argued that the only language the ruling elite, be it in colonial or post-colonial Africa, understands is violence. Therefore, he claimed, armed violence is essential to liberation and freedom. Such a call to arms often appears to be an appealing and practical step, but there is no example in Africa of a peaceful state emerging out of violent revolution. Ghana may come up as an example of peace after violent revolution, but one wonders if there is any real change in Ghana's political and economic system. The case of Ghana is merely that of a bold soldier, inspired by Marxist ideas and principles, killing some of the ruling elite and taking over power. However, such taking-over of power is still about control of state resources by the state, which now gives out to the

poor rural dwellers. While many Ghanaians are proud to refer to the Jerry Rawlings revolution as a decisive point in their history, the fact is that Ghana is still a victim of globalisation, neoliberal economic policies and a poor economic system like the rest of Africa. The Rawlings revolution, like the short-lived Thomas Sankara revolution, was not systematic and not built on culture, nature and community

A more fundamental and sustainable revolution that is urgently needed in 21st century Africa, according to Ndlovu-Gatsheni (2013) and Adodo (2017), is knowledge revolution, the revolution of the mind. The critical challenge is how to reconstruct the state and nation into an ethical community where wealth is equitably distributed, power is exercised in a responsible and caring manner, and society is united behind an integral national vision. There is a need for serious consideration of how peripheral societies can emerge into dynamic, innovative and forward-looking political entities that can thrive within a stifling, and dominant western neoliberal economic tradition. As events unfold in the modern world, it is evident that capitalism, neoliberalism, socialism and globalisation have failed to protect the poor, the weak and the marginalised. The world needs a new model of development. Such models are not likely to come from the centre but rather from the peripheries, where the so-called bottom-billion live (Collier, 2008).

How do we articulate African problems in an authentic African voice without falling into nativism? How do we talk and think about democracy without mimicking Western liberal democracy? Can Africans evolve peculiar economic and political theories grounded in their own cultural, epistemological and ontological contexts? How do we decolonise the African intellectual space? For Africa, it is clear that another world cannot be possible as long as the continent and its people are not fully decolonised and the snares of the post-colonial and neo-colonised world are not broken (Mamukwa, Lessem and Schieffer, 2014; Smith, 2012).

The goal is to transcend the dichotomies of west and east, south and north, and engage in innovative co-creation, where identities are persevered and respected, without looking down on the other. The big barrier is the arrogance and misplaced superiority complex of formal institutions that are determined to continue with their imposition of the one-sided logic of western epistemology (Wa Thiong'o, 2011). Sadly, most African universities have become accomplices and, in fact, significant tools, in the systematic mental colonisation of Africans (Medel-Añonuevo, 2002; Bhambra, Gurminder, Gebrial, Dalia and Nisancioglu, 2018).

It is critical that universities in Africa focus on encouraging innovations and concentrate on building entrepreneurial skills among students to help them develop the capacity to transform ideas into business proposals, and actual products and services, otherwise they remain ivory towers with no impact on societal transformation. In fact, university education, as it is presently constituted in Nigeria and Africa, is geared towards producing graduates who are job seekers rather than job creators. Universities should integrate into their local communities and help to promote local economic transformation. One of the aims of Transformation Studies in Africa is to explore practical ways in which conventional universities can become communiversities community universities (See Adodo, 2017) and produce entrepreneurial graduates who are likely to generate jobs in their communities while adding to the growth of the economy. Such communiversities, consciously recognise and transcend the embedded dichotomies in the conventional mode of knowledge creation.

The acquisition of western knowledge has been and is still invaluable to all, but, on its own, it has been incapable of responding adequately in the face of massive and intensifying disparities, uncontrolled exploitation of pharmacological and other genetic resources, and rapid depletion of the earth's natural resources. In that context, a return to indigenous knowledge, cast

in a contemporary guise, is all important (Lessem et al., 2013; Andrews, 2018).

African governments are often tempted to prolong the length of time students spend in school because they believe that the longer time they spend in school, the more educated they become. They mistakenly think that the way forward is to import more knowledge into their countries. However, in my view, what is really needed is to help the people and their elite to capitalise on and master the existing knowledge, whether indigenous or not, and develop new knowledge in a continual process of uninterrupted creativity, while applying the findings in a systematic and responsible way to improve the quality of life of the people.

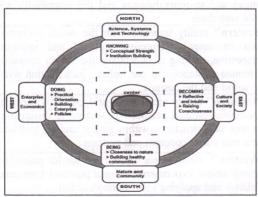
As the title of this paper suggests, Africans need to research their history with African eyes and in their languages, symbols and metaphors. How do we do this? How do we create our systems to ensure that we are not forever enslaved in other people's systems? *Transformation Studies in Africa* is explicitly designed to address these issues. What are the fundamental tenets of Transformation Studies? What are the key research methods and methodologies? These will be the topic of the second part of this paper.

PART TWO

TRANSFORMATION STUDIES: INTEGRAL WORLD RESEARCH METHOD AND METHODOLOGY

2.1 What is Integral World Research Method?

Over the course of history and across geographical space, humanity has developed diverse perspectives on reality: different interpretations of the world through different individual and collective lenses. Culture has always been immensely valuable in shaping individual and collective worldviews or realities. In exploring world philosophies, cultures and religions, we discovered that throughout history all cultures used fourfold patterns to indicate diversity in wholeness, often represented within a circular outer design. The differentiation into four poles represents differentiated human consciousness, which can self-reflectively understand the diverse individual and collective positions, each sharing a part of the totality. We humans also reflect this diversity within ourselves, and with different aspects of our personality.



Picture 1: Source: Adodo, 2017

Among the core, cultural symbols that mirror this fourfold reality within a circular design are representations of the Tibetan mandala, the Christian cross, Native American medicine wheels, the (double-fourfolded) Buddhist wheel of life, some Arab calligraphy and some African cosmologies like the cosmograms of the Yorubas in Nigeria. This integrated fourfoldness is also represented in the four directions, four seasons, four temperaments and four elements. Fourfold integrality was also a significant inspiration for Margaret Mead (1933) and Carl Jung (2009) and the learning theorists David Kolb and Ron Fry (1975). It surfaces in many commonly used human development tools, such as Honey and Mumford's learning styles (2006), the Myers-Briggs Personality Type Indicator (Briggs-Myers and Briggs 1995) and the Temperament Sorter (Kiersey and Bates 1984).

The four directions (south, east, north and west) are chosen to illustrate the diversity of cultural realities. In general terms, these four directions represent four perspectives:

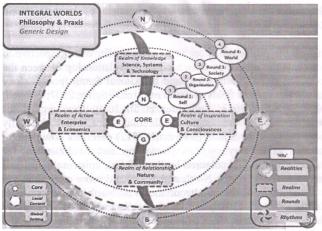
"Southern" reality is engaged with the world primarily through relationships to nature (including our inner nature) and to other humans and the community we build with them

"Eastern" reality interacts with the world primarily from an inner, interpretive, cultural and spiritual perspective, seeking to understand the deeper meaning of human existence and our holistic participation with the world and the cosmos

"Northern" reality views the world primarily through a scientific, rational perspective, seeking to distinguish patterns and structures within reality and to translate them into viable concepts and systems.

"Western" reality acts upon the world primarily through active experimentation and practical treatment of things and applying ideas through action

Table One: The Four Realities



Picture 2: Source Lessem & Schieffer (2010)

The terms like "southern" and "eastern" are consistently put in quotation marks to highlight their metaphorical meaning and to avoid an overly simplistic, geographic association. Still, it is hard to miss the resonance between these diverse perspectives on reality and aspects of global geography.

As the world grows ever closer together and cultural identities increasingly fuse, these distinctions may become less clear. What will not change is that each of us, and each society and culture, employs a particular lens or combination of lenses that are different from others. As we evolve further, we are called, as individuals, organisations, communities and societies, to be aware of our particular orientation (or combination of orientations), and to acknowledge that each holds only a part of the understanding of the totality. To fathom the integral whole, we must explore the worlds or realities of others, be they individual beings or entire societies (Freire, 1970; Shepherd, 2007). Being aware of, and able to engage with and ultimately accommodate, the rich diversity of

alternative realities is a crucial component of Integral World Research (IWR).

In fact, the problem has been the tendency for one perspective to dominate the others, as evidenced in the relationship between the so-called global North (rich) and the Global South (poor). Many scholars in various fields of social research (Stiglitz, 2007; Connell, 2007; Breidlid, 2013; Rodriguez et al. 2010) have argued for decolonisation of the social, intellectual space, which is heavily biased against the South. Eisenstein (2012) describes how popular theories in Biology such as Darwinism and Evolutionism, for example, are in fact coloured by the cultural, epistemological and ontological bias of the North and West, and more often than not is a reflection of the culture of the West/North than of science. Rodriguez et al. (2010) and De Sousa Santos (2017) vehemently challenged the dominance of Northern and Western theories in the social sciences.

Theories in Economics, Psychology, Sociology, Anthropology and health care reform often took on a universal air of certainty, and these theories are applied to people of all races and cultures as if written on marble. For example, Easterly (2006) and Jerven (2015) describe how the Washington-based economists, the neocapitalists, the Washington consensus caucus and the free market evangelists plan, formulate, prescribe and impose foreign-made solutions on developing countries, based on the assumption that globalisation and free market economy is the cure for the poverty-disease in African countries.

The emphasis on alternative perspectives is significant because the way knowledge (and thereby reality perspectives) is generated shows that most of the research methods and methodologies currently in use were developed in Europe and the United States and hence tend to strengthen a Euro-American perspective on reality. The integral approach offers a new approach to transdisciplinary cooperation where the arts, social sciences,

natural sciences and physical sciences acknowledge their rootedness in nature and culture.

2.2 Integral World Research (IWR): The Four-fold Paths to Innovation

Over time, highly differentiated outlooks on the world grew out of the diverse realities. Each perspective delved into knowledge fields and disciplines that deepened people's understanding of the world. Again, as individuals and groups, we are predisposed to favour particular knowledge fields and disciplines over others as we interpret the world. These knowledge fields and disciplines then became, and still are, the major structural criteria for organising universities into departments and faculties. Over time, that process has led to a dramatic compartmentalising of knowledge, with knowledge fields or disciplines increasingly disconnected from each other—through professions, terminologies and mental models.

That process has helped to fragment our world—including the university. IWR is designed to help us better see the rich diversity of knowledge and disciplines, through the four different realms and to generate interaction between them. The four realms (see Figure 2) are closely aligned with the four realities (south, east, north, west). Each realm has a core perspective, illustrating its principal tenor. Further, these four perspectives represent a vast number of knowledge fields and disciplines. The four realms of relationship and their major knowledge perspectives are:

1.	"Southern": nature and community	2. "Eastern": culture and spirituality
3.	"Northern": science, systems and technology	4. "Western": enterprise and economics

Table Two: The Four Perspectives

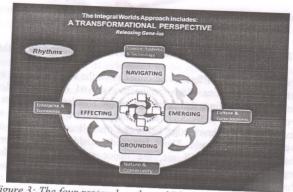


Figure 3: The four research paths and Rhythms. Credit: Lessem & Schieffer (2015)

2.2.1 The Southern Relational Path: Natural and Communal

South Origination	Descriptive Contextualising	Describe phenomena in intimate details. Situate yourself in a particular, communal locale.
East Foundation	Phenomenology Engage	An ecological/anthropological inquiry into an inner world: Adopt a humanistic paradigm-immersion in nature and community.
North Emancipation	Feminism Indigenous Knowledge Systems	Promote knowledge as personal liberation: Build upon the wisdom inherent in nature to uncover indigenous knowledge and worldviews.

West	Participatory	Communal problem
Transformation	Action	solving to promote self-
	Research	reliance: Alleviate
	Collective	communal and
	Action	environmental decay;
	particular	Serve, locally, to heal the
	Uca Hair soper	planet, globally.

Table Three: The Southern Path

Origination: Immerse vourself in a context: As a Transformation student, you engage your total self, personally and institutionally, in passionate involvement with a troubled community and desecrated environment, you portray these in richly descriptive terms, involving what you intimately hear, see and feel, with a view to drawing out the originality and poignancy of such, with a view to healing such nature and communities.

Foundation: Probe into a unique life-world: You inquire, both individually and collectively, into a uniquely perceived life world of immediately lived experiences; you concentrate on illuminating the inner nature of such, culturally and spiritually, locating such a unique individual, communal and natural history as an episode of a larger societal story.

Emancipation: Give voice to the marginalised: You aim to create social and economic change, you view knowledge that leads to such as a means of liberation not domination, of physical and human nature. You strive to represent diversity.

Transformation: <u>Undertake collective action</u>: Fully and actively participating in and through the community, you aim at the exploited, the poor, the oppressed, the marginalised. Serving to create awareness of their resources, you mobilise people for self-reliant development, through your committed community/ organisation.

The Eastern Path of Renewal: Cultural and Spiritual

South Origination	Narrative Unfolding/ Originating	Narrate unfolding individual-collective story. Immerse yourself in a particular culture's origins.
East Foundation	Hermeneutics Interpret/fuse	Philosophically/historically interpret individual/communal origins: Spiritually and culturally, fuse past and present, self and others.
North Emancipation	Critical Theory Raise Consciousness Movement	Critical theory as an emancipatory dialectic: Transcend historic capitalism/materialistic consciousness to evolve new forms of spiritual and social awareness.
West Transformation Table four: The I	Cooperative Inquiry Knowledge Transformation	A democratic process of inquiry, using diverse knowledge modes: experiential, imaginative, conceptual and practical. Serve to democratise education and research.

Table four: The Eastern Path

Origination: Rediscover your cultural heritage: You tie together innovation potentials and possibilities through individual, organisational and societal beginnings; no struggle, no story, no trouble, no tale, no ill, no thrill. The original innovation narrative is like a plot shaped by many of the more significant stories in which

Foundation: Reveal the local/global meaning: Reconnecting with a historical, cultural and spiritual source, you understand how the world with which you are dealing, including yours, is constructed, also giving relevant others a voice in such, fusing self and other, local and global.

Emancipation: Liberate the oppressed: Your social construction arises out of the problems of everyday life. Through critical theory, you uncover power relations. You analyse specifically, for human flourishing, the suffering of people, while being explicitly focused on promoting liberation of self and others, culturally and spiritually, as well as socially, economically and politically.

Transformation: Develop self and community, organisation and society: You finally engage in a politically oriented process. You do so in a participative form of inquiry, and you are also involved in an integral knowledge-oriented process. You participate in an alternating current of informative and transformative inquiry, in action-reflection

2.2.3 The Northern Path of Reason: Science and Technology

South Origination	Theorizing Conceptualizing	Build up a theory from the ground up: Surface your, and others', mental models.
Foundation Foundation		Draw on sociology, political science, economics to explain: Draw on social sciences to emancipate your elf/society.
North Emancipation	Postmodernism Knowledge Society	Postmodernism as alternative discourses: Build a knowledge creating, post-industrial

alonistick Stagni Arot produces on a State-autoropie (St	to and the second of the secon	community, drawing on diverse knowledge sources.
West Transformation	Socio-Technical Design Networked Communities	Co-generative democratic workplaces: Build non- hierarchical, networked communities and societies.

Table five: The Northern Path

Origination: Construct a socio-economic theory: You ground your prospective innovation in an underlying theory, developed from the ground up, locally. You develop falsifiable hypotheses (theories) to bring some order to data, in your search for the truth.

Foundation: Develop original hypotheses: Deriving theories from tentative conjectures, you falsify rather than verify, aiming for continuous improvement set within an open community, organisation and society, where flexibility and fallibility are the order of the day.

Emancipation: Decolonise the mind: You pursue knowledge creation from multiple perspectives, within the context of a "hypertext" organisation, whereby a transformative project layer is aligned with business, academic or governmental systems, tapping into the knowledge grounds underlying organisation and community.

Transformation: Co-generate a democratic design: You adopt a problem-solving orientation, your integral innovation being inevitably linked to action and geared towards social betterment. You use a co-generative approach to communal and organisation development, acting as a "friendly outsider", individually and institutionally, democratically and socio-technically.

2.2.4 The Western Path of Realization: Political Economy and Enterprise

South Origination	Survey Methods Experimenting	Survey, experimentation, observation: Experiment with an initial, specific idea.
East Foundation	Empiricism Problem Solving	Apply empirically based behavioural, verifiable analysis: Analyse cause and effect with a view to problem-solving.
North Emancipation	Critical Realism Sustainable Development	Critical realism as stratified knowledge: Uncover the generative and self-sustaining natural and social forces that underlie our economic systems.
West Transformation	Action Research Power Shift	Continual cycling between action and reflection: Promote social change, challenging, and overturning existing power bases.

Table Six: The Western Path

Origination: Apply a novel business idea: Able to ask right questions, you are a good listener and not trapped by your ideologies and preconceptions. You are adaptable so that newly encountered situations can be seen as opportunities. You are unbiased by preconceived notions, and you are responsive to contradictory evidence.

Foundation: Learn from/adapt through personal experience: You persistently seek after verifiable cause and effect, to ground your prospective innovation in fact and logic. You seek after the "positive facts", separating facts from values. You collect data and build theories from them. You ultimately control the results of any experimental research through "closed systems", excluding unwanted variables.

Emancipation: Challenge the economic system: Critical of the status quo, you become involved with a stratified or layered reality, seeking after the underlying causes, of the financial and economic crisis. You view such a layered perspective on reality as fallible, knowing that there is an interpretable as well as an empirical side to the research/innovation you are pursuing.

Transformation: Act and reflect: Starting out, transformatively, you immediately challenge power relations. You diverge and also converge, undertaking socio-economic research for a socio-economic change. 'Knowing how' is more important than 'knowing that', and finally, social and economic innovation, for you, involves a succession of incremental changes.

2.3 The Four (4) Cs: Call, Context, Co-creation, Contribution

While the foundation of the Integral World Research lies in the theory of the four worlds, the research path itself follows a 4-fold research trajectory called the four (4) Cs: Call, Context, Co-Creation and Contribution. This fourfold research trajectory corresponds to four levels of research paths called Origination, Foundation, Emancipation and Transformation (see tables 3-6). Finally, each research path follows a particular research trajectory: For the Southern Relational Path of Nature and Community, it is Descriptive, Phenomenology, Feminism and Participatory Action research trajectory. For the Eastern Holistic Path of Culture and Spirituality, it Narrative, Hermeneutics, Critical Theory and Cooperative Inquiry trajectory. For the Northern Rational Path of

science and systems, it is Theorizing, Rationalism, Postmodernism and Socio-Technical Design. Finally, for the Western Pragmatic Path of Economics and Enterprise, it is Survey Methods, Empiricism, Critical Realism and Action Research.

The first C, (Call) demands that the researcher reconnect with his/her inner Call, to discover his/her burning desire concerning social innovation and link them with the outer challenge or particular objective burning issue in the society. The second C, (Context), requires that the researcher critically examine the imbalances and excesses in his/her particular context. This includes the analysis of the transpersonal, transcultural, transdisciplinary and transformational imbalances in one's particular context intending to correcting them. This is akin to making a diagnosis before commencing treatment. The objective burning issue that the researcher seeks to address is directly related to the imbalances located in the researcher's context.

The third C, (Co-creation), means that one transcends the limitations of one's particular cultural context, and embarks on a transcultural and transdisciplinary journey through an exploration of research-to-innovation methods, existing theories and literature. The guiding research question at this stage is: 'how can research and development be designed in such a way that they lead to social and technological innovation?' Such co-creation is significant in two ways. Firstly, the relationship between teacher and students, supervisor and the supervised, is transformed into one of mutual co-creation, not to mention also the relationship between fellow researchers as co-creators across different disciplines. Secondly, the division between research method (methodology) and research content (literature) is co-creatively transcended.

The fourth and final C, (Contribution), is the ultimate distillation of the research journey, towards practical application of the knowledge generated to effect social change. The research question at this stage is, 'how can innovation-oriented research and

development contribute to the creation of new types of universities (knowledge creation), leading to practical and visible transformation?

It is essential that we deal—interactively—with all four realms as we engage with given transformational issues. Also, we must work closely with competent others. Isolated individual researchers cannot alone provide integrated solutions to the complex problems we face today.

2.4 Conclusion

I have argued in this paper that for Africans, economic and social freedom are not enough. Contrary to what Ake (1995) opined, political freedom is not even enough. The most important freedom, in my view, is cognitive freedom. Cognitive liberty is the freedom of Africans to tell their own stories based on their own experiences, to understand the present in light of the past. Africans must 'own' the story they tell and take control of telling it in their language and metaphors, in line with the African proverb, 'until the lions learns to write, every story will glorify the hunter'.

People cannot be liberated by consciousness and knowledge other than their own. It is therefore essential that Africans develop their own indigenous consciousness-raising and knowledge generation, and this requires the social power to assert this (Ramone, 2011). The scientific character or objectivity of knowledge rests on its universal verifiability, and this depends on consensus as to the method of verification. All scientific knowledge is relative to the paradigm to which it belongs, and the verification system to which it is submitted (Medel-Añonuevo, 2002; Mbembe, 2017).

It is not enough to engage in education, the structure of the knowledge system itself has to be examined and questioned. It is not enough to study scientific truths, how science arrived at such 'truths' has to be challenged. Science does not exist independently of its cultural context, despite its pretence to undiluted objectivity. While education can bring liberation, it can also be a means of keeping people in bondage.

We need the cognitive freedom to help us resist the danger of being 'story-o-typed' (origin of the word stereotype) again, as our ancestors were. This is what Transformation Studies in Africa is about: researching Africa with African eyes.

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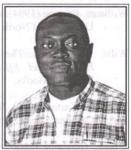
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CITATION OF FR. ANSELM ADODO, OSB

Anselm Adodo is a member of the Benedictine order of the Catholic Church. He was ordained a priest in 1997. He had his initial philosophical training at the *Studium of Philosophy* in St. Benedict Monastery, Ewu, Edo State, Nigeria. Father Anselm Adodo is the founder and Director of Nigeria's famous herbal research Institute, the *Pax Herbal Clinic and*



Research Laboratories. He is a prominent advocate of African Herbal medicine research, indigenous knowledge systems, rural community development, health policy reform and transformation of education in Africa.

A Philosopher, Theologian, Ethnobotanist and Social Scientist, Anselm has a BA in Religious studies from the University of Nigeria, Nsukka, Nigeria; an MA in Systematic Theology from Duquesne University, Pittsburgh USA; and M.Sc. in Medical Sociology from the University of Benin, Nigeria. His doctoral degrees are in Management of Technology and Innovation systems from Da Vinci Institute, South Africa, and in Medical Sociology from University of Benin, Nigeria.

Fr. Adodo has authored a number of books which include: Herbs for Healing (1997), Healing Radiance of the Soul (2003), New Frontiers in African Medicine, (2005), Herbal Medicine and the revival of African Civilization (2010), Disease and Dietary patterns in Edo Central Nigeria (2013) and the best-selling Nature Power, first published in 2000 and reprinted eight times. His 2017 book titled Integral Community Enterprise in Nigeria.

Communitalism as an Alternative to Capitalism (Routledge, 2017), has received a lot of positive reviews and is the theoretical foundation for the theory and practice of Transformation studies in Africa, in which he argues for the need to have a southern approach to complement existing western social theories.

His latest book, which has just been released, titled: *Medicinal Plants of Nigeria: An Ethnobotany Survey and Plant Album* (Beacon & OFIRDI, 2018), is a compendium of Nigerian medicinal plants and their health benefits, and a contribution to the preservation African indigenous medical knowledge systems.

Aside from his published books, he has over 20 research work published in peer-reviewed academic journals in diverse fields such as philosophy, economics, political science, anthropology and Medical Sociology. His most recently published research papers are: 'A Philosophical Analysis of Emergent Issues in Art, Religion and Culture for Educational Development in Africa'. In International Journal of Humanities, Social Sciences and Education. Volume 5, Issue 1, 2018, Page No: 127-134 http://dx.doi.org/10.20431/2349-0381.0501020 and Demographic Characteristics and Marital Satisfaction Among Non-Teaching Staff of a Nigerian University'. Vol.4. No 2. February 2018. www.researchjournali.com/pdf/4141.pdf. popular weekly health columns in the New Telegraph Newspaper and The Sun newspaper are in their fourth year and still running. Adodo is also a regular contributor to the health column of The Nation newspaper.

Fr. Adodo is Fellow of the Nigerian Society of Botanists, a member of the Research Committee on Social Transformations and Sociology of Development, International Sociological Association; Member, National Association of Complementary and Alternative Medicine practitioners, Nigeria; Member, Sociological Association of Nigeria; Senior Research Fellow, Trans4m Centre for Integral

Development, Geneva, Switzerland, and Adjunct Research Fellow, Nigeria Institute of Medical Research (NIMR).

In 2016, Fr. Adodo founded the *Pax Centre for Integral Research and Development*, an NGO that promotes Afrocentric Research and Wholistic education and development in Africa. Fr. Adodo is currently a visiting lecturer at the Institute of African Studies, University of Ibadan, where he Teaches Transformation studies and Traditional African Medicine and an adjunct lecturer at Samuel Adegboyega University, Ogwa, Edo State.

In May 2018, he was appointed by the Edo State Governor as Coordinator of Edo Rural Resource Development Initiative, with a mandate to train and empower 200,000 youth and 150,000 farmers through local initiatives, indigenous technology, agribusiness, manufacturing with a focus on sustainability and integral Transformation.

