

Positioning Africa in the global politics surrounding the covid-19 pandemic: A historical appraisal

Gilbert Tarugarira^a, Midlands State University, Zimbabwe

ARTICLE HISTORY

Published online, 2022

ABSTRACT

The advent of covid-19 ushered in contestations bordering on racism, power and knowledge across the globe. This article grapples with racism as an overarching theme in the debates surrounding medical colonisation and the prevailing 'vaccine diplomacy' which have made Africa's position in the geopolitical knowledge, socioeconomic and scientific development, oblique. Racial domination and exploitation have occurred repeatedly throughout history wherever two distinct racial groups have established contact. A submission is made that African dignity and status were decimated by the dehumanising experiences at the hands of the white people which began with the transatlantic slave trade, followed by European colonisation and raceconsciousness which emanated from the first two factors. The trend has continued this time under the garb of disruptive technologies through which Africans are being forced to adopt fabricated identities born of the covid-19 pandemic. As whites came to believe in their inherent superiority, the Africans sank into the paralysing belief of their own inferiority. The article demystifies the imperial logic that, it was the white men's burden to civilise Africa by showing how colonialism and racism contributed toward the relegation of African scientific ingenuity into the abyss of scientific innovations. The western scientists' prejudices against African metaphysics and epistemology amidst the claim that Africans' intellectual capacity remains very limited are challenged.

KEYWORDS

Covid-19, racism, medical colonisation, indigenous knowledge, technology,

1. Introduction

The covid-19 pandemic has ravaged Africa at a crucial period of its history during which the continent is seeking complete liberation from colonial, and racial oppression as well as overcome socio-economic and technological backwardness. While Africa has its fair share of blame towards the continent's economic, social and scientific backwardness, the state of affairs can also be attributed to the colonialist and imperialist domination. There is need to acknowledge that African flag independence is little more than sixty years old for most countries and the way Africans have tried to develop their economies especially on the basis of western advice has indirectly promoted export production and lack of technology to improve methods of production among other vices. The continent is still to overcome bastions of imperialism designed to retain African nations in its orbit.



15(2):94-109 ISSN 1815-9036 (Print) ISSN 2790-9036 (Online) © MSU PRESS 2021



After the collapse of the foundations of imperialism's colonial system, the pillaging of natural resources remains an alienable feature of imperialism, although the imperialists are now compelled to act more craftily and disguise their pillage. Neo-colonialism dubbed the 'new epoch', Manchkha (1983, p.45) argues, "does not differ from 'classic' colonialism."

The imperialist concept of the 'white man's burden' added strength to the belief of white superiority and the assumption that Africans by racial quality were inferior found a physiological basis for alleged temperamental and intellectual differences. These ideas continue to have wide currency without extreme caution that skin pigmentation does not extend to membranes, brain and nerves and all the humours. The race problem which grew out of such external differences as skin pigmentation remains an artificial problem created by white men who during and even after the colonial era have made an obsession of these racial superficialities.

Although Africa has become more desolate through mismanagement of resources, civil wars and undemocratic governance, we need not turn a blind eye on how the colonial masters impoverished and have continued to impoverish Africa. In an effort to confront the truth of Africans' contribution to their lack of development, the blame- game has become a permanent feature of the development discourse. However, what Europeans feel compelled to hide is what black people are obligated to expose, namely, the truth and reality of the humanness of all people. The contribution of racism in sustaining white people's dominance, as this article reveals, cannot be disputed. The manner in which racism has promoted and justified white hegemony has unwittingly transmitted the stigma of African inferiority with pigmentation being the prime stigmatising factor. In order to guarantee the viability of African debasement, whites have also relied on the Bible, and providential design where whiteness and blackness are equated to good and evil respectively (Ephraim, 2003; Makumba, 2007).)

Onyeani (1990) has emotionally expressed his displeasure over repeated racist remarks by Africans who blame former colonial powers for their lack of progress. He considers the blame-game by Africans as an excuse for their failures. However, as Rodney (1972, p.122) avers, placing the whole question of the blame- game into a historical perspective allows us to see how capitalism has always discouraged technological evolution in Africa, and blocked Africa's access to its own technology. The tendency towards technological innovation was inherent in capitalism itself, hence, the colonisation of Africa formed an indispensable link in a chain of events which made possible the technological transformation in Europe. This also makes it essential to understand the role of colonialism in advancing scientific progress, and its application to industry in the metropolis.

Colonialism was prejudiced against the establishment of industries in Africa as a result of the non-industrialisation policy. It is a truism that Europeans deliberately ignored those African requests that Europe should place certain skills, and techniques at their disposal. Rodney (1972) advances that during the colonial era, several requests by West Africans were made, demanding Europeans to set up factories and distillers, but these were rebuffed. In addition, the nature, and circumstances of African trade with Europe were not conducive to the creation of a consistent African demand for technology relevant to development. Where the situation could have been inviting, it was ignored or rejected by capitalists simply because it would not have been in the interests of capitalism to develop Africa. The limited social services within Africa during the colonial times were distributed in a manner that reflected the pattern of domination and exploitation

Contemporary Africa suffers from extremely unequal power relations in the world, and contains many features of economic dependence upon the western world. The whites seem to have the conviction in their minds that the blacks are hardly of the same species with the white men, but creatures of a kind somewhat inferior object of study. Some whites have relentlessly sought to explain, and prove African inferiority on scientific and anthropological grounds. However, as this article reveals, medicine was and has been politicised since it does not exist in the abstract. Africans have uncritically celebrated the entrenchment of neo-capitalism where elite millionaires have deliberately invested in vaccines manufactured to possibly transform sections of the

humans into post-human/transhumant cyborgs or biology-technology hybrids (Nhemachena 2021 p.2). Whether knowingly or unknowingly, the implications of the medically related harms inflicted upon the Africans during the colonial period still linger and continue to affect people's perceptions and practices in the face of the covid-19 pandemic. The disruptive pandemic seems to have legitimised fabricating human bodies that are increasingly turned into "chaotic hybrid bodies populated {and equally polluted} by nanotechnology, nanorobots, and nanovaccines" (Nhemachena 2021 p.2).

The article sustainably presents the argument that the duo of the coloniality of being, and the coloniality of knowledge were responsible for the subordination of peripheral societies to the whims of global imperial designs (Ndlovu-Gatsheni 2013). The coloniality of being draws on the scientific racist thinking informing the othering of colonised people while the coloniality of knowledge speaks to the displacement and destruction of alternative indigenous knowledges by the Euro-American technoscientific knowledge through epistemological colonisation. It is regrettable that there are nano-mafia millionaires, corrupt governments, professors, health unions, doctors and nurses, policemen, among others campaigning to "deceptively and criminally implant/insert nanorobots into brains of global citizens for purposes of global surveillance" (ChemChina 2021,p.2)This historical approach becomes the mirror through which to view more clearly the philosophical and psychological scope of the burden and responsibilities of being African in this covid-19 pandemic-ridden era and beyond.

2. The African: Being human under the shadow of racism

From the standpoint of the African experience in a white-dominated world, the Africans (Black people) have been the antithesis, the exploited and oppressed lot in the ongoing racial problem. This situation is fully recognised by both blacks and whites in the Hegelian sense of a 'double significance' whereby the domination of the blacks catapulted the whites to status of oppressors (Ephraim, 2003). As racism remains the most contagious and contaminating monster of all time, its faces need to be uncovered even where it is institutionalised. Cone (2004b, p.140) presented racism as "a major killer in the modern world". He speaks of "the racist value-system" which Europeans imposed upon the blacks through cultural imperialism as having forced the latter to resign and occupy subordinate positions in their interaction with the former (Cone 2004b, p.142). That Africans have been victims of white sadism is undeniable. Fanon (1961; 1967) examines the impact, including the psychological consequences, of racism in respect of both the oppressor and the oppressed. Kuvuna & Sinner (2018) present some examples of the shadowy appearance of racism as abuse of human dignity, humiliation, violence and oppression.

Plato's subjective conception of reality and knowledge, Ephraim (2003, p.50) opines, projected a cultural bias and racial conceit which helps "to explain the persistence of white chauvinism and the European's pathological need for self-aggrandisement". With Africans being conceived as diminished in intellectual development, "violable, penetrable, decomposable, lacking human essence, integrity and identity... so imperfect, incomplete..." these became principal and indelible traits in African stereotypes (Nhemachena et al, 2020, p.118).

In his caustically disparaging remarks about Africa, Hegel (1952, p. 199) asserted that "At this point we leave Africa, not to mention it again. For it is no historical part of the world, it has no movement or development to exhibit...." He continued to advance his opinion, thus:

Africa proper, as far as history goes, has remained, for all purposes of connection with the rest of the world, shut up...the land of childhood, which lying beyond the day of self-consciousness history, is enveloped in the dark mantle of night (1952, p.196).

The metaphorical reference of Africa as a 'child' on the world stage of history according to Ephraim (2003, p.53) suggests the "infantilism of the African and a confirmation of her none participation in the building of culture and civilisation". This metaphorical language degraded and dehumanised Africans in the matrix of international relations, and was typical of imperialism, slavery and colonialism.

Perhaps the Hegelian notion of Africans being 'children of the forest' informed Mannoni's argument that there were inert universal psychological drives which motivated people to either dominate or be dominated (Mannoni, 1965) The conclusion Mannoni arrived at was that, child-bearing practices among Europeans and Africans differentiated their predisposition to be colonisers or colonised upon which feelings of dependency and inferiority were easily transferred upon the coloniser. The prejudicial and derogatory sentiments Immanuel Kant (1724-1804) says about the black race held that the original species of humankind was white and that the inferiority of the black people had a biological quality. Levy-Bruhl (in Makumba,2007, p.44) went on to classify human societies in two; the civilised which was characterised by scientific institutions and the primitive which attributed explanations to supernatural and occult powers like magic, sorcery, witchcraft and spirits of the dead. As a result, whites came to be identified with logical and procedural thinking other than the Africans whose thinking was labelled pre-logical or pre-scientific.

Memmi (1965) and Fanon (1967) extended Lenin's theory of imperialism which ascribes economic imperatives in promoting the domination of some by others by focusing on the results and psychological effects of imperialism on the colonised people. They argue that the nature of the relations between the coloniser, and colonised has implications for the socio-economic, and even personal development of the colonised. Fanon (1967) addressed the harmful social, psychological and economic effects of institutionalised racism upon Africans living in a world dominated by whites. He concluded that the African experience under slavery, and colonialism, not only interrupted development but also put African values into disarray. Without any remorse, the whites were able to teach and impose their values upon Africans whom they considered to be indistinct from animals. This is what is implied in Memmi's reference to Africans being removed from history.

Colonialism was backed by the military and economic mighty of the metropole which facilitated the physical conquering of the colonised. Force was used to whip the colonised into submission, as such the colonised were not free to choose between being colonised or not (Memmi, 1965). The colonised's acceptance of this caricature and the destructive and exploitative relationship between the coloniser and the colonised blossomed into dependence whereby the metropole determined the pattern and direction of development. Even in situations where harmful technology is institutionalised, the Africans do not question their 'master'. Nhemachena (2021, p.3) decries how intellectuals in some African universities are "trapped in mimicry and parroting Western academics and academies instead of deploying their own critical and creative ideas". The retrogressive cry by some Africans that the colonial system was better is a result of the long period of colonisation which tuned the African psyche towards admiring the domineering antiques of the coloniser (Marnoy, 2006, p.64).

Indeed, some Africans were historically turned into invaluable collaborators to colonial masters during the colonial era. As Gatsheni-Ndlovu (2013) puts it, the empire invented Africa in western imaginations as lacking and backwards so as to reinforce colonial matrices of power which enabled the control of African economies.

The fact that the Africans had to wage wars to liberate themselves shows that the colonial powers had a lot to gain from the colonial relationship which independence would withdraw. However, even with independence, the former colonial powers have continued to reap the benefits of the old colonial relationship. Fanon (1967) argues that the transference of power from the colonialists to the national bourgeoisie maintains colonial institutions and often increases the economic and social power of the excolonial country. African leaders became mere spare parts of the old colonial engine.

The modern African states operate within a global imperial order where the hegemonic centre of global capital controlled by the International Monetary Fund (IMF) and the World Bank has long signalled the re-colonisation of Africa (Ndlovu-Gatsheni 2013). The resultant contradictions of flag independence, and the nature of the colonial relations continue to nurture neo-colonialism. Imperialism never sought to humanise Africans but it historically turned them into its "chatbots, voice assistants, virtual assistants, digital assistants, collaborators and parrots" (Nhemachena 2021, p.4).

Unfortunately, this logic is intensifying in the 21st century. Dependency is key to the continued existence of the underdeveloped situation. This explains why most of the African schools, and universities, have been reduced to being largely selectors and

socialisers. At the end of 500 years of shouldering the white man's burden of civilising African natives, the Portuguese had not managed to train a single African doctor in School expansion occurred independent of (Munslow,1987). industrialisation. The focus was on becoming European through formal schooling without being able to carry out a transformation to industrial capitalism. The prevailing problem of unemployment among secondary and university graduates in Africa is the logical outcome of such colonial distortions.

3. Technology and the human condition

Advances in multiple dimensions of science and technology are credited for improvements in the conditions of human life but also bear most of the blame for the deterioration of these conditions. This explains why with the advent of covid-19 people attributed divine and/or demonic powers to it to the extent of accusing other countries for bewitching the world. Donald Trump termed Covid 19 a 'Chinese virus' irrespective of the magnitude with which the virus ravaged the universe (Ndlovu-Gatsheni 2020, p.367) In as much as techno-scientific developments are a product of human activity, it is apparent that knowledge has now become independent of its producers. The propensity of technology to terrorise everybody is nay. The scanning and subjection of the nano-robotised human minds to wireless remote control confirms that technology is behaving like a machine out of control. The question begging for an answer is whether the nanotechnologies are leading to a significant reduction in human pain or are exacerbating suffering, oppression and exploitation.

Gendron (1997, p.2) advances "the utopian, dystopian and socialist" views concerning the social role and value of modern technology to conditions of human life. The first two are crucial for further analysis. The utopian view holds that technological growth will eliminate disease and undermine the environmental conditions which reinforce aggression, prejudice, oppression and exploitation. The dystopian view advances that while technology is creating affluence and increasing human control over nature, it is undermining freedom and stimulating the use of techniques of mass manipulation (Gendron 1997). To buttress the dystopian view, it is not beyond the range of technical possibility to create 'fetishistic technology' or some techno-scientific monster which gets out of control, and ravages humankind. A fetishistic view of technology arises when "technology is considered to have certain mysterious powers with which it rules over the humans who made it" (Gendron 1997, p.3).

This resonates with the lab-construction theory which claimed that the coronavirus escaped from the Wuhan Institute of Virology. Donald Trump strongly believed that the Chinese deliberately leaked the virus. The claim lacked empirical evidence, but Trump vehemently labelled China as the source of the covid-19 outbreak. The speculative biowarfare theory foregrounded the claim of China's massive depopulation mission for releasing a virus which went out of hand.

While scientific evidence has also invalidated and relegated the claim to a conspiracy theory with no empirical support, it is not an oversimplification to say that the imperatives of modern techno-scientific development are bound to determine our economic and political systems as well as the range of ethical codes. Nhemachena et al. (2020, p.110) implore that contemporary implantation, and insertions [and vaccines] "are fundamental forms of invasions into ... the brains of the people who then risk losing autonomy and control over their invaded mental faculties."

Notwithstanding the above, it would be preposterous to simply impute African consent to the implantations, insertions and vaccines in a world context "where binaries between consenting and nonconsenting, agreement and disagreement, safe and unsafe, empowerment and disempowerment, freedom and bondage, legitimate and illegitimate, humans and technology are blurred" (Nhemachena et al 2020, p.110).

Against the background of enslavement and colonisation, Nhemachena et al. (2020, p.125) posit that the increasing commodification of human lives requires the effacement of distinctions between humans and nonhumans and the ethical and nonethical." The astounding truth is that the original, obsessive need for wealth and power by the whites as epitomised through the activities of Trans-National Corporations has not subsided. Clinging on to racism for psycho-ontological reasons, they remain

convinced that the African continent has made no contribution to civilisation. Colonial assumptions of African people as savage, barbaric, backward, uncivilised and low in intelligence and culture were deliberate unremitting assaults meant to trivialise and erode African dignity. As Memmi (1965) has argued, the coloniser needed the degradation of the colonised to justify his place in the society. In other words, "the colonial situation manufactures colonialists, just as it manufactures the colonised" and ultimately "the coloniser accepts his role as a coloniser and the colonised accepts being colonised" (Memmi, 1965, p. 60).

4. Politicising medicine

The economic system of early colonialism in Africa thrived on compulsion. Colonial efforts to create export economies which depended upon the continued exploitation of cheap African labour had adverse effects on Africans' health. Whether people were enlisted in mining, infrastructure and agriculture, they often had few occupational protections. As such, without proper medical facilities, decent housing and sanitary facilities, they succumbed to illnesses that resulted from their labours.

Africans suffered acutely from infectious and parasitic diseases such as "tuberculosis, malaria and smallpox which could have been treated at a relatively low cost by distributing prophylactics and by organising rudimentary programmes of health education" (Isaacman 1985, p.53). In practical terms, it meant the medical and sanitation services were organised to serve the privileged white community. The bulk of the social services went to whites. Around the 1930s, for example, "in the Nigerian city of Ibadan, the British colonial government maintained a segregated hospital service of 11 beds for 50 Europeans as compared to 34 beds for half a million blacks" (Rodney 1972, p.225).

Colonial rule was expensive. Coupled with most colonial governments' belief that colonies should generate their own revenue, seldom were there sufficient funds for adequate health services to meet people's immediate needs. At a meeting of directors of medical services from across sub-Saharan Africa in 1935, two health administrators from South Africa called the state of affairs 'deplorable,' and blamed the metropolitan governments for their 'neglect of African problems' (Tilley 2016, p.746).

Medical colonialism in Africa is not new. According to Fanon (1967, p.128) acts of refusal or rejection of medical treatment [by Africans] are not refusals of life, but "a greater passivity before that close and contagious death." Whenever there are signs of reluctance by the African to get vaccinated, the behaviour reveals the colonised people's mistrust of the colonising technician. Africa was, and continues to be viewed as a vast field for unlimited clinical research where clinical material was, and is also unlimited. For much of the colonial era, there existed no agreed -upon ethical standards for 'human subjects' research, nor were there clear methods for how to design and analyse either large or small-scale trials (Tilley, 2016). People were treated like animals without any respect. The colonialist doctor was an exploiter and the hospitals were broadcasting centres for disunity, theft, immorality, anarchy, indiscipline, corruption, division and racism.

By carrying out experiments on African people, the colonial assumption was that Africans were objects of study not indistinct from animals and so did not deserve any human dignity, human integrity and privacy. Following Mozambique's independence, Samora Machel called for the transformation of Maputo Central hospital "from a centre for maltreatment and humiliation of our people, a centre of unbridled capitalist exploitation ... [where] people were used in the hospital as guinea-pigs for new drugs and certain operations" (Munslow 1987, p. 144).

Equally revealing is Tilley's (2016) examination of the history of colonialism in sub-Saharan Africa focusing on the harms of conquest, and on the treatment and research campaigns sponsored by nascent medical services. Tilley (2016, p.747) aptly concluded that "by exploring the ethical dimension of medicine in colonial Africa, we can begin to appreciate the moral complexity, not only of past interventions but also international health systems today, given their roots in imperial dynamics."

New technology and medical discoveries punctuated by the rise of the world pharmaceutical treatments and vaccination campaigns between 1900 and 1920,

enabled Europeans to live more safely in conquered territories. The minuscule allocation of funds, and the handful of doctors to attend to African health services requirements transformed hospitals into 'slaughter houses'. Turnbull (1963, p. 191) noted that in the last years of Belgian rule in the Congo, the hospital was "a slaughter-house where African undesirables were eliminated by doctors." The big hospitals in Stanleyville and Bunia, where the black men went to be cured, were "centres of sorcery where the white men killed the black man and ate his vitals" (Turnbull, 1963 p. 200). The cannibalising of African bodies was rampant.

Such malpractices made the white doctors look more sinister and eviller as they "gained magical control over the souls of the dead Africans and could so bewitch the living" (Turnbull, 1963 p.200). Fanon (1967, p.123) argued that the French medical service in Algeria could not be separated from French colonialism. The deceptive and coercive approaches towards the manipulation of Algerians by European doctors who wanted to achieve their therapeutic or investigative goals forced patients to mistrust the doctor. The Algerians shied away from hospitalisation because "the sudden deaths of Algerians in hospitals... were interpreted as the effects of a murderous and deliberate decision ...on the part of the European doctor" to eliminate the Algerians (Fanon,1967). The Algerians doubted the colonial doctor's essential humanity. In certain hospital services experimentation on living patients triggered a range of biomedical errors and accidents. These men on whom the French doctors practiced these experiments were brought to the hospital on the 'scientific pretext' of having to make further examinations (Fanon, 1967 p. 124).

When a pandemic of sleeping sickness ravaged Eastern and Southern Africa in the 1890s, the "Germans and French focused on developing drug treatments, some of which were arsenic-based and nearly deadly in effective dosage while the British chose to cordon off affected groups, using coercive tactics, and forcing large numbers of people to leave their villages" (Tilley 2016, p. 744). Regardless of the known side effects caused by their drugs; if diagnostic tools and treatments caused harm, pain or permanent disabilities, they chose to use them on Africans anyway, guided by the logic that doing something was better than doing nothing. Such developments though, should not lead to the conclusion that colonial medical expects lacked morality.

Tilley (2016) acknowledges that there were medical experts who were passionate to their patients and conducted cutting edge researches which still benefit the world to this day. In some cases, it was a question of good intentions which backfired or led to the path to hell. In the case of sleeping sickness research, for instance, medical experts conducted painful lumbar punctures to detect trypanosome parasites and "provided drugs that managed to save lives but also caused blindness, brain damage or even death" among 10 to 20% of the recipients (Headrick, 2014 p. 69).

Notwithstanding the above, the reactions of the colonised need to be analysed because they have a bearing on current practices. French doctors made racist comments suggesting that a vaccine for the coronavirus be tested in Africa "where there were no masks, no treatment and no resuscitation" (BBC News, 2020). Precisely so, the head of the World Health Organisation (WHO) called it a hangover from the colonial mentality. Perhaps in retaliation to the remarks by the French doctors, protesters in Ivory Coast destroyed a coronavirus centre which was being constructed in Abidjan. To confirm abusive experiments by medical personnel, Zimbabwe had the case of Dr Richard Gladwell McGowan who in 1994 killed 5 people after subjecting them to excessive amounts of anaesthetics, epidurally and otherwise. McGowan confessed that the weird experiments were part of an effort to 'break new ground in medical techniques' in order to discover new methods of managing pain with specific interest in how black females reacted to morphine when injected epidurally. Reminiscent to colonial practices, McGowan conducted the experiments without the permission of the Ministry of Health, the Drugs Control Council of Zimbabwe or the ethics committees at the hospitals and clinics where he conducted them. The European doctor neither sought permission from the patients or their relatives nor make provisions to take out insurance on behalf of the patients against any possible risks from the experiments (Moto, 1994, pp.4-5). The insinuation that Africans would be treated as human guinea pigs forced and continues to force Africans to question the sincerity and generosity of vaccine donations by western countries to Africa. The upshot of the foregoing is that while emergent technologies surrounding covid 19

vaccines are depicted as human enhancements or human augmentations, they could equally be crippling.

5. Elephants fight and the grass suffers

The decolonisation-dependency debate looms large over the degree to which African countries control their international relations. However, it is beyond doubt that the genesis and intensification of the Cold War between 1947 and 1989 transformed African countries into proxy battlefields between the unparalleled superpowers of the post-World War II era namely the United States of America and the former Soviet Union. The fall of the Berlin Wall in 1989 signalled the end of the Cold War but not the end of international rivalry in Africa. As Schraeder (2013, p.170) puts it, "the ideologically based Cold War was replaced by a Cold Peace in which the major northern industrialised democracies struggled for economic supremacy in a highly competitive economic environment of the 1990s". The truth of the matter is that important policies affecting the future of African politics and society are decided in the capitals of the Great Powers. The extensive involvement of the former communist bloc countries which waned in the short-term following the demise of the Cold War was rekindled in the mid-1990s. Also, the end of the Cold War witnessed the transformation of Washington's ideologically-based policies in favour of the pursuit of trade and investment

The emergence of a Cold Peace in which the Great Powers compete for markets and influence in Africa has of late dominated the search for remedies and distribution of vaccines for the covid-19 pandemic. The universal war against covid-19 has dragged countries into resuscitating the moribund Cold War. A number of factors shape this dynamic. The danger of African involvement in military blocs stemmed from the former colonial powers to which many African countries were still bound by political and military obligations. The inclusion of non-alignment in the Organisation of African Unity (OAU) now African Union (AU) according to Gromyko (1983, pp.42-43) did not mean passive neutrality but was just "a guide for the coordination for Africa's involvement in world politics and was the only acceptable means of ensuring Africa's freedom, stability and prosperity."

During and after the Cold War, the durability of the trends emerging in nonalignment has been tested and proven that the act of non-alignment was just a fallacy which remained feasible only in organisational terms. The anti-imperialist element in African non-alignment has not only continued to expand but has also become one of its foremost trends. Thus, having fought their battles for national liberation and having won sovereignty, Africans today continue their struggle against imperialism and neocolonialism. Such a scenario makes it impossible for the majority of African countries to keep "non-aligned" because their non-alignment has been expressly anti-imperialist from the beginning. As a result, African countries have tended to shift closer to the countries in the East than those of the former colonial powers or the United States. On the international scene, African countries remain united in their anti-imperialist, antineo-colonialist struggle for the realisation of genuine sovereignty, economic and social progress. They base their policies on the precept that durable peace is impossible for as long as neo-colonialism is escalating its offensive. Such is the historical and sociopolitical background against which African countries have been shaping the main principles of their foreign policy.

Oriented differently in social terms, African countries pursue foreign policies that are far from identical. These historical flashbacks are necessary in analysing complexities associated with different African countries' acquisition of covid-19 vaccines. The polarisation of global politics, and the pervasive spirit of competition are such that none of the contenders in the East or West can afford to slacken their competitiveness in the production and distribution of vaccines. As in power politics, so in the medical fraternity, keen competition prevails since any scientific innovations have to be put on display in the global supermarket.

The general trend shows that most African countries have chosen the Anglo-Swedish AstraZeneca shot given that it does not require storage at ultra-cold temperatures. Rwanda ordered covid-19 doses developed by the United States of America pharmaceutical firms Pfizer and Moderna. Uganda earmarked more that \$164

million worth of vaccine supplies from Moderna, Pfizer and AstraZeneca (Olukya, 2021). Zimbabwe rolled out its vaccine programme upon securing 200 000 donated doses of China's Sinopharm shot. Morocco, believed to have the continent's most successful programmes, is using vaccines from AstraZeneca and China's Sinopharm. The AstraZeneca vaccine, however, suffered a knock when Sweden, Germany, France, Italy, Ireland, the Netherlands, Denmark and Norway suspended its use following reports of blood clots in some vaccinated people.

Kenya's Pharmacy and Poison Board (PPB) reported that 279 people suffered adverse effects after taking the Oxford-AstraZeneca vaccine (Shimanyula, 2021). South Africa also temporarily put AstraZeneca vaccinations on hold after a small trial showed that the short offered minimal protection against mild-to-moderate illness causes by the dominant local corona virus variant. Vaccines, like all medicines can have side effects. However, the cases of blood clots following the use of the vaccine forced the African Union to drop plans to buy the shot amid global shortages. The AU embarked on exploring vaccine options with Johnson and Johnson. Since AstraZeneca's shot was the least expensive and required no extreme refrigeration like other vaccines, it would have been ideal for many inoculation programmes in Africa. Africa continued to get supplies of AstraZeneca from the Serum Institute of India (SII) through the COVAX initiative. The scramble by governments to find alternatives to tame the pandemic plunged countries into 'masked diplomacy' as some covid-19 vaccines faced a trust gap against some traditional African remedies.

Suspicions surrounding the negative effects of AstraZeneca dealt a blow to the company's hopes to deliver a vaccine for the world and reap financial gains out of the investment. Although the European Medicines Agency (EMA) and the World Health Organisation (WHO) repeatedly confirmed the vaccine's safety and emphatically stressed that its benefits outweighed the risks, the efficacy of the vaccine sustained a dent. While downplaying the dangers of AstraZeneca, the European Union (EU) vehemently attacked Chinese vaccines. The EU alleged that the efficacy data supporting the Chinese vaccines was doubtful because these had neither been publicly nor peer-reviewed thereby casting doubt on their effectiveness.

Donations of millions of vaccines by China and Russia to Southeast Asian nations cast a dark cloud which camouflaged and reduced the visibility of the European Union (EU) efforts. China made exporting the various vaccines –free of charge-a priority. Meanwhile, China's focus on vaccine deliveries abroad prompted accusations that Beijing was deploying the jab as a diplomatic tool by way of using vaccines to score future political points with governments. Through her 'masked diplomacy' China was able to send vaccines to expand its geopolitical influence into Africa while the EU stressed that it was not exchanging vaccines for political favours. Europe's sluggish vaccination campaigns, however, opened up a void which China was happy to fill. China led in vaccine development, producing four leading vaccines in 2020 now being used by Egypt, Morocco, Senegal and Zimbabwe.

As the coronavirus surged and governments across the European Union were struggling to secure vaccine supplies, the EU, Russia and China stepped in with their own vaccine diplomacy. Even countries in Eastern Europe desperately jumped at the opportunity to import Russia's Sputnik V and China's Sinopharm vaccines before their approval by EMA. The availability of the Sputnik V and Sinopharm vaccines forced some African governments to rebuff and break EU ranks to import them. The EU continued to caution Eastern European and African countries against the Russian and Chinese vaccines, expressing scepticism over why Moscow and Beijing exported their shots around the globe while neglecting their own populations. Russia and China appeared unenthusiastic to secure EMA approval for the distribution of their vaccines to other countries because they had already dragged Eastern Europe and Africa into their camp. The continent's dilemma was whether to partner with the East whose vaccines the West de-campaigned or side with the West whose vaccine distribution policy was biased towards the fulfilment of the EU quota first. As the elephants continued to fight, Africa suffered.

Vaccine diplomacy: The wrong cow for the wrong calf!

The Shona proverb hakuna mhou inokumira mhuru isiri yayo (there is no cow which

lows for a calf which is not its own) underlines matters of identity and it cautions those that "uncritically believe that there is a universal /global cow which can low for all calves in the world; or that there is now a singular cow that lows for all calves in the world" (Nhemachena, 2021 p. 7). Similarly, there is no global mother as evidenced by the former American president Donald Trump's decision to cut United States' funding for the WHO over his claims that the international organisation did not take action as China manufactured the corona virus in its face. Suppose the WHO was the global mother, Ndlovu-Gatsheni (2020, p.367) questions her "capability of resisting imperialist and capitalist practices and the politics that impinge negatively on the international political economy of health."

As the corona virus wreaked havoc in Europe and the Americas, the rich nations were accused of hoarding covid-19 vaccines. If the western world was to be a cow to the calves in Africa, what global capital depicts is that the mother had peppered her teats (*kuisa mhiripiri pamunyatso*) so that Africa would continue to imbibe at a cost. While the speedy development of vaccines has brought a glimmer of hope for many across the globe, the developing world has not seen much joy as the rich, and developed countries have prevented an equitable access and distribution of the life-saving jabs to other parts of the world.

Colonisation, global capital and imperialism purport to be global, inclusive and cosmopolitan for purposes of dispossessing, and exploiting the resources of the developing nations. The UN chief, Antonio Guterres, accused the wealthy countries of stock piling vaccines, an act that he termed a 'moral outrage'. The World Health Organisation (WHO) Director General Tedros Ghabreyesus also warned that the world was on the brink of a 'catastrophic moral failure' due to what he described as "Vaccine Nationalism" (BBC News, 2021).

When a cow starts to low for a calf that is not its own, the Shona people would urge caution. The Shona proverb *hakuna mhou inokumira mhuru isiri yayo* underscores the necessity of "critical independent thought that would allow Africans to expose the veneered generosity, universalism, globalisation and inclusivity" in this hunt for a remedy to the covid-19 pandemic (ChemChina, 2021 p.18).

The wealthy nations resorted to the pre-ordering of vaccines from multiple drug companies. Global Justice Now reported in November 2020 that more than 80% of Pfizer/BioNTech vaccine doses had already been bought by a handful of countries outside Africa. Within the EU, the gravity of the issue was aggravated by the UK's rather selfish acquisition of more than 20 million out of the 70 million vaccines which the Union had exported (Tasamba, 2021).

At a time when the World Trade Organisation (WTO) was appealing for an equitable distribution and access to covid-19 vaccines, the European Union had already mooted the idea of banning vaccine exports from the bloc in an effort to make sure that manufacturers meet the demands of the EU member states first. This again is a manifestation of 'blood being thicker than water'. In their 'soberness', Africans blamed Europe for holding onto vaccines for its citizens. Such a situation makes it difficult for Africa to get supplies because the companies manufacturing vaccines are concentrated in industrialised countries which house research-intensive industries.

Would the cows low for the calves that are not their own? Strive Masiyiwa, the African Unions' (AU) special envoy tasked with leading efforts to procure vaccines criticised European suppliers for not establishing production centres in Africa. Even though he insisted that Africa was not asking for donations but had the money to buy from the EU suppliers, he was referred to India (Africa News 2021). Europe was still concentrating on meeting her needs. This was a classic example of a wrong cow for the wrong calf.

Outside Masiyiwa's benevolence, what further complicates Africa's predicament is the challenge of financing the vaccines and the logistics of vaccinating at large scale. If the international pharmaceutical companies that control the patents on vaccines keep their prices high for the world's rich to afford, then Africa will have been knocked out in the global fight to combat covid-19. With Africa caught in the vicious circle of poverty, the continent risks being left behind in the 'scramble' for vaccines. Problems at AstraZeneca which have caused political tensions across Europe also seem to have undermined Africa's vaccination plans.

Acts of conspiracy?

The covid-19 pandemic has had devastating effects which have been felt the world over with Europe, the Americas and India being the hardest hit. Given that African countries have severely incapacitated and fragile public health systems, fears grew and projections were made about the potential disaster covid-19 was going to inflict upon Africa. Despite lagging behind in accessing vaccines, the numbers of deaths and infections in Africa have remained relatively low at a time when the western world has seen a surge in infections, deaths and hospitalizations. Most of the cases reported in Africa involved foreign nationals or locals who had travelled abroad especially to China and the West (Rodriguez-Morales et al., 2020).

Undeniably, however, the entire continent had an opportunity to prepare for the impending pandemic. Africans had pronounced mixed reactions, dark humour, jokes, religious and political explanations surrounding the spread of the virus. Zimbabwe's, a top-ranking official and ruling ZANU-PF National Chairperson, Defence and War Veterans Minister, Oppah Muchinguri sparked controversy after claiming that covid-19 was God's punishment on Western countries that included the United States of America for imposing sanctions on Zimbabwe (Shumba et al., 2020 p.271). Shumba et al (2020) argued that such misinformation, and conspiracy theories advanced by a respected figure of authority can potentially generate complacency and mistrust, thereby derailing health initiatives towards curbing the inevitable outbreak of the pandemic in Zimbabwe. In the early 1980s the Zimbabwean authorities refused debating HIV/AIDS issues in the public domain until the 1990s. Sarcastically, and politically so AIDS was an abbreviation for 'American Ideas of Discouraging Sex.' Such pronouncements mirror President Thabo Mbeki's HIV/AIDS denialism from 1999 to 2008, which led to loss of lives.

The late Tanzanian President, John Pombe Magufuli declared that the East African country was covid-free, and did not place any curfew or confinement to prevent the spread of the virus. Magufuli repeatedly downplayed the pandemic which is rumoured to have taken his life, doubted vaccines and advocated traditional medicine and faith healing (Oduor, 2021). The negativity of denialism embraces the promotion of complacence and a sense of false immunity to the disease while at public health level; there are delayed responses to the spread of the virus (Shumba et al., 2020 p.280). Such denials of intent are a species of what Freud (1965, p.103) termed 'motivated forgetting', a phenomenon constituting a 'defensive striving' against plain truths. In other words, when a certain truth is painful and as such hard to accept, the human mind tends to diminish its importance, to annihilate it, "as a way to achieve some measure of psychological ease" (Ephraim 2003, p.119). President Yoweri Museveni Kaguta of Uganda, encouraged Africa to seek solutions to her problems instead of relying on the western world. He made the remarks at the official launch of Uganda's clinical trials for a coronavirus drug at Mulago Hospital (Olukya, 2021).

President Rajoelina of Madagascar claimed that his country's discovery, Covid—Organics had been tested and proven to be effective, and that the product was an African formula that would save the world. Although the efficacy of Covid—Organics was shrouded in controversy, the country dispatched doses of Covid—Organics to countries which included Nigeria, Tanzania, Comoros, Senegal, Guinea Bissau, Chad, Equatorial Guinea, Congo and the Gambia (Sari, 2020). The WHO warned against the use of the concoction on the basis that it had not been tested and proven effective. Rajoelina unleashed a 'conspiracy theory' in order to counter the censure and promote Covid—Organics, arguing that the remedy was being dismissed simply because it had not originated from the West. He held firm to his stance that the agency's refusal to approve Covid—Organics was a well calculated conspiracy to denigrate Africa as a continent that is unable to find its own cure to the coronavirus (Sari,2020).

The upshot of the foregoing is that Africans have a burning desire to submit an authentic contribution to human civilisation, hence, the relentless efforts to unearth innovations which antedate any contact with the West. Ontologically, Rajoelina viewed Covid—Organics as an African model for the salvation of humanity-anchored on an absolute repudiation of a European paradigm. The motivation behind his action was the zeal to quash the European's obsession with self-aggrandisement as the saviour of humankind. The brains behind the development of Covid—Organics, Professor

Albert Ratsimamanga, and an anti-colonial activist, is renowned for his clarion call that Africans must have self-confidence in themselves, and the therapeutic virtues of the continent's rich biodiversity. As a function of imperial logic, scientific knowledge has been divided along racial lines amidst the celebrated falsehood that "the Europeans have the scientific spirit while the Africans have a magical conception of nature" (Tarugarira, 2012 p.54).

In 2018, Donald Trump evoked the worldwide condemnation when he referred to African countries as 'shithole countries'. The comments were not only racist but irresponsible, and disrespectful of the Africans. From the racist perspective the value of human beings (Africans in this particular case) depends on their skin colour, and place of settlement among other factors. The lack of respect was compounded by a distributive judgement that considered Africans as worthless. The worthiness of an individual, Kuvuna and Sinner (2018) argue, does not depend on race or the area where they live. Instead, it is an inner value that can neither be destroyed by external conditions nor abused by external agents. What a person says in response to a situation may be one's overall evaluation or appraisal of his or her worth, and it encompasses beliefs about oneself as well as emotions (Kuvuna & Sinner 2018, p. 628). At times responses are determined by how people feel positively about themselves and their competencies.

After the Zimbabwean minister's widely publicised claim that covid-19 was God's vengeance on the west for imposing 'illegal' economic sanctions, Zimbabwe went on to receive aid from the 'architects' of sanctions to help fight covid-19. Zimbabwe's acceptance of the aid from the west tended to invalidate the minister's comments. In the same manner that many of the ways in which Africans behave are misunderstood by Europeans, so many of the ways in which Europeans behave are misunderstood by Africans. This explains why the most innocent, even commendable actions (like donating vaccines), can give rise to suspicions and fear. However, the western gesture is among many strategies that the west has employed to ensure that the enslaved and colonised people forget the wrongs of enslavement and imperialism. Manchkha (1983, p.127) argues that the mutual cooperation, financial, economic and medical aid proclaimed by the western countries "are nothing but a demagogic cover-up for imperialist domination in African countries and their enslavement in the form of neocolonialism which differs all too little from the relations of the colonial period."

Indigenous knowledge for development

To demonstrate that scientific advance is most generally a response to real need, Africans turned to home remedies in the early days of covid-19 when little was known about the virus. In fact, in the African primary health care system, traditional medicines remain the most affordable and easily accessible source of therapeutic treatment. It would be naïve to claim that Africans could not make scientific discoveries that could prove to be useful to humankind before European penetration into the continent. According to Parrinder (1969, p.25) "...to say that African peoples have no systems of thought, explicit or assumed, would be to deny their humanity." The African intellect and scientific ingenuity exhibited in the European medical discoveries has not been acknowledged and in some cases, the innovations by traditional African scientists have been hijacked by racist whites through bio-piracy.

As indigenous knowledge (of the medical, nutritional and magic properties of plants) is being collected into digital repositories for preservation and dissemination, Africans have to obtain rights of intellectual ownership to the resources (Tarugarira, 2012). With bio piracy and patenting of indigenous knowledge proving to be a double theft of creativity and innovation, Fanon (1963, p.313) has suggested that Africans employ their "muscles and brains in a new direction to create the whole man, whom Europe has been incapable of bringing to triumphant birth." The notion of science as a closed system of knowledge regulated by Eurocentric rules has not accorded any recognition to African physical and metaphysical processes that resonate with scientific studies. Although some indigenous practices might be unsound, others are being recognised and roped into the medical mainstream for wider application.

The pandemic has provided an opportunity for Africa to shift the geo-politics of knowledge by using indigenous knowledge systems. There is need to recognise that

western science has limitations which can give false conclusions if applied to assess the efficacy of indigenous knowledge. Western science could not explain acupuncture which has since been integrated into western medical-school curricula (The IKS initiative of the Medical Research Council of South Africa, 2004). In a clarion call for new knowledge which transcends racism and colonialism, Ndlovu-Gatsheni (2020, p. 370) questions whether "the knowledge that carried us over the past 500 years and has plunged us into the current civilizational crisis can be the same knowledge that is used to take us out of the present crisis and into the future." The Indigenous Knowledge Systems initiative of the Medical Research Council of South Africa has embarked on the development and coordination of research on health-related indigenous knowledge.

The intention is to establish national and regional networks that promote the integration of traditional and contemporary scientific knowledge. Instead of looking to Europe for assistance, Africa now needs to invest in research programmes which have commercial potential that can be transformed into economically sustainable initiatives (The IKS initiative of the Medical Research Council of South Africa, 2004). Africa's agile and innovative response to an emerging need for remedies to covid-19 creates opportunities for frugal innovation. In Zimbabwe, for example, there was a frenzied demand for zumbani, botanically known as Lippia Javanica. The herbal plant was mixed with lemon, garlic and other herbs then boiled for steam therapy. Throughout the course of the pandemic, Africa has seen an increase in innovative solutions, including virus-testing robots, contact-tracing applications, non-invasive testing kits, foot-operated hand-washing stations, oxygen machines, drone medicine delivery service among many. There are more than 100 life-changing innovations from across the continent and by inventors as young as nine years (UNDP 2021). In this regard, there is need to decolonise networks, connections and processes constituting global coloniality. Africa's vision should drive towards the promotion and advancement of indigenous knowledge systems as alternative technologies that can serve as valuable models on a global scale.

Conclusion

The total picture might sound one-sided for giving an impression that western civilisation has brought nothing but harm. However, in order to repair the historical legacy of white supremacy and colonisation there is need to move from denial to recognition in order to ideologically, institutionally and psychologically transform the systematic form in which it hinges on. Although Africa with the most natural resources is poor and consumes manufactured products from the developed world, it would be criminal libel against history to downplay the negative impact of colonialism and racism in Africa's path towards development. With Africans getting more easily coaxed into vaccinations which they can no longer resist, they risk losing their freedom and autonomy. As a result, the continent remains exposed to surveillance capitalism where people will be monitored and technologically abused in ways that tangentially defy human ethics. Africa has to lean against her experience of dealing with and surviving epidemics and pandemics in the hunt for a remedy to the covid-19 pandemic.

Given that globalisation has necessitated the traversing of boundaries of knowledge, it is now difficult for Africa to isolate herself from the rest of the world for the authentication of her discoveries. However, the superficial adoption of the Whiteman's culture by the African should not be the yardstick with which to measure the African's progress towards civilisation. Political or flag independence in Africa did not free the people from the power of monopolies and imperialist exploitation. The vaccine diplomacy shows that there are medical fronts now open for the rekindling of the 'cold war'. With the African continent in particular, and the Global South in general, being subjected to technological experimentations and this new scramble by both the eastern and western worlds, Africans risk losing sovereignty over their natural resources and bodies. While historically, the enslaved were forced to wear leg irons and copper slave collars so that they could not run away from the slave hunters or their masters, the vaccines and related biometric devices born of technological development might perennially trap Africa in the net of the undying imperialist exploitation.

The pandemic has universally turned tables for certain narratives and representations. There was a reversal of what had become a celebrated claim that Africa was often the source of the problems and epicentre of the crisis involving origins of infectious diseases. For a fact, the majority of the first covid cases in Africa were associated with European visitors. Another unprecedented delayed boomerang from the era of slavery has been Africans' control over European mobility to their territories. African countries audaciously cancelled international flights and close borders to white visitors. Covid-19's blindness to colour and race and Europe's newly discovered vulnerability could change the narrative of white supremacy and seek an honest quest for truth and understanding about human reality that 'I am because we are'. Global citizens have to engage in fundamental process of societal renewal towards the creation of an oppression-free society which is truly capable of peaceful co-existence.

REFERENCES

Africa News, (2021) You can't say you support us & deny Africa vaccine production centres-Envoy to EU,Retrieved on 15August 2021 from https://www.africanews.com/2021/07/01/you-can-t-say-you-support-us-deny-africa-vaccine-production-centers-envoy-to-eu//

Cone, J.H (2004b). Theology's great sin: silence in the face of white supremacy. *Equinox Publishing* 2.

Ephraim, C. W. (2003). *The pathology of eurocentrism. The burden and responsibilities of being black*. Asmara: Africa World Press.

Fanon, F. (1961). The wretched of the earth. New York: Grove Weidenfeld.

Fanon, F. (1967). A dying colonialism. New York: Grove Press.

Freire, P. (2005). *Pedagogy of the oppressed*. New York: Continuum.

Gendron, B. (1997). *Technology and the human condition*. New York: St. Martin's Press.

Gosling, T. (2021). Russia and China are exploiting Europe's vaccine shortfalls, Retrieved on 9 April 2021 from https://foreignpolicy.com/2021/03/31/russia-china-vaccine-diplomacy-slovakia-europe-eu-slow-rollout/

Gromyko, A. (1983). African countries' foreign policy. Moscow: Progress Publishers.

Headrick, D. 2014). Sleeping sickness epidemics and colonial responses in East and Central Africa, 1900-1940. *PLoS Neglected Tropical Diseases*. Accessed 20 April 2021 from.

http://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0002772.

Horton, R. (1967). African traditional thought and western science. *African: Journal of International African Institute*, 37: 55

Indigenous Knowledge World-Wide, March 2002. 29777,2502LT The Hague, The Netherlands. Available online at: http://www.nuffic.nl/ik-pages/ikww, accessed August 2004)

loussouf, R. (2020). Madagascar president's herbal tonic fails to halt Covid-19 spike, BBC Radio bbc.com/news/world-africa-53756752.14 August 2020

Kant, E. (1963). *On history*, (Trans. Beck, L.W., Anchor, R. E.& Fackenheim, E. L.)

- New York: The Bobbs-Meril Co.
- Makumba, M. (2007). *Introduction to African philosophy: Past and present.* Nairobi: Paulines Publications Africa.
- Memmi, A. (1965). The colonizer and the colonized. Boston: Beacon Press.
- Moto Correspondent, (1994). The untouchable? *Moto*, July, Issue No.138, pp.4-5.
- Munslow, B. (ed.) (1987). Samora Machel: An African revolutionary. Selected peeches and writings, Harare: College Press.
- Ndlovu-Gatsheni, S. (2020). Geopolitics of power and knowledge in the covid-19 pandemic: Decolonial reflections on a global crisis. *Journal of Developing Societies* 36(4), pp.366-389.
- Ndlovu-Gatsheni, S. (2013). *Empire, global coloniality and African subjectivity*. Oxford: Berghahn Books.
- Nhemachena, A., Hlabangane, N. and Kaundjua, M. B. (2020). rationality or hospitality in twenty first century research? Big data, internet of things and the resilience of coloniality in Africa. *Modern Africa: Politics, History and Society* 8(1): 107-129.
- Oduor, M. (2020). Tanzania to use local herbs instead of vaccine against Covid-19' Retrieved from https://www.africanews.com Accessed on 24 April 2021.
- Olukya, G. (2021). Uganda launches trials for coronavirus drug. Retrieved on 22 April 2021 from http://www.aa.com.tr/Africa/Uganda-launches-trials-for-coronavirus-drug/2125350.
- Parrinder, G. (1969). Religion in Africa. Middlesex: Penguin Books.
- Pyotr, M. (1983). Problems of Africa today. Moscow: Progress Publishers.
- Reuters, (2021). AstraZeneca woes grow as Australia, Philippines, African Union curb COVID-19 shots. Retrieved from https://www.reuters.com/article/us-health-coronavirus-astrazeneca-idUSKBN2BV2BA. Accessed on 4 April 2021
- Rodney, W. (1972). *How Europe underdeveloped Africa*. Harare: Zimbabwe Publishing House.
- Hegel, G. W. F. (1952). The philosophy of history. Chicago: Encyclopaedia Britannica.
- Sari, E. (2020). Coronavirus: the miracle remedy touted by Madagascar's Rajoelina. Retrieved from https://www.theafricareport.com/26599/coronavirus-the-miracle-remedy-touted-by-madagasars-rajoelina/ Accessed on 4 April 2021.
- Schraeder, P. J. (2013). African international relations. *In* Gordon, A. A. and Gordon, A. A. (eds.) *Understanding contemporary Africa*. London: Lynne Rienner.
- Shimanyula, A. W. (2021). Kenya: 279 people affected by AstraZeneca vaccine, Retrieved from, https://www.aa.com.tr/en/africa/kenya-279-people-affected-by-astrazeneca-vaccine/2201467 Accessed on 8 April 2021.
- Shumba, K., Nyamaruze, P., Nyambuya, V. & Meyer-Weitz, A. (2020). Politicising the covid-19 pandemic in Zimbabwe: Implications for public health and governance.

African Journal of Governance and Development 9 (1): 270-285.

- Staff Reporter, (2021). Covid-19: Africa fears vaccine shortage. Retrieved on from http://www.aa.com.tr/en/africa/covid19-africa-fears-vaccine-shaortage-urges-equality/2128751# Accessed on 22 April 2021.
- Tarugarira, G. (2012). Unmasking the nexus between natural imperialism and the resonance of European labels on Africa's gifts of nature in the underdevelopment of Africa, *Journal of Sustainable Development in Africa* 14(7):54-59.
- Tasamba, T. (2021). Covid-19: Africa fears vaccine shortage: Retrieved from https://www.aa.com.tr/en/africa/covid-19-africa-fears-vaccine-shortage-urges-equity/2128751 Accessed on 25 July 2021.
- The IKS initiative of the Medical Research Council of South Africa, (2004). Retrieved on from (http://www.mrc.ac.za/innovation/indigenous.htm, Accessed 8 July 2021
- Tilley, H. (2011). Africa as a living laboratory: Empire, development, and the problem of scientific knowledge, 1870-1950. Chicago, IL: University of Chicago Press.
- Turnbull, C. M. (1963). *The lonely African*. London: Chatto and Windus.
- UNDP Report. (2021). Pandemic spurs innovation in Africa, Retrieved on 8 April 2021 from http://www.aa.con.tr/en/africa/pandemic-spurs-innovation-in-africa-undp-report/2201372.
- World Bank. (2004). Indigenous knowledge for development. Available online https://www.worldbank.org/afr/ik/broch.pdf Accessed 22 April 2021.