

The Politics Of Sars-Cov-2 (Covid-19) Pandemic And Conspiracy Theories: The Implications For Travesty Of Scientific Logic

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Abstract

The twilight of year 2019 witnessed one of the unprecedented turn of events in human history. This followed the outbreak of SARS-CoV-2 (COVID-19) in Wuhan China that quickly spread like wildfire to other parts of the world. The consequent global anxiety about the nature and fatality of the virus degenerated into conspiracy theories. These theories centered emphases on the palpable cause of the virus, and thus politicized certain suspicions pertaining to the likely reasons for the outbreak and spread of the virus. The premise of the debate challenges scientific roots for discovery and explanation of inexplicable problems occasionally found in human environment. It seriously casts aspersions upon the laxity of science to prove the inapplicability of conjectures in answering scientific questions and thereby presented dissonance problem in a body of knowledge, surrounded by disjunctive cause-effect impasse. For the foregoing reasons, this study interrogates the impacts of unscientific speculations in contradicting scientific investigations and conclusion. It is both exploratory and descriptive research and dwells on secondary data and content analysis. It adopts propaganda model in explaining the variants of conspiracy that characterized the outbreak of Covid-19. The findings show that conspiracy theories distracted attention from fighting the virus and concentrated energies on politicization of its origin, purpose and the intended targets. It recommends restraint in politicizing global health challenges to limit the avoidable fatalities.

Key Words: Politics; Coronavirus Pandemic; Conspiracy Theory; Travesty; Scientific Logic

Introduction

Year 2019 ended on a sad note with the report on 31 December 2019 by the Wuhan Municipal Health Commission that there was outbreak of Coronavirus at Wuhan City of China, (World Health Organization - WHO, 2020). It graduated to global health emergency that completely resets year 2020 for uncertain fate and destination. In some places, it breathed life into the age-long misinformation about leap years, claimed to midwife incomprehensible happenings in human society – natural and synthetic disasters that cause sufferings, pains and sorrows. Although mystifying incidences of varied nature, magnitude and historical dimensions occur in human society without prior warning signs, the consequent efforts to address the accompanying ‘misfortune and adversity’ (Weisenfeld, 2012), are what sometimes become circumscribed.

In every circumstance, the knowledge of the enormous destructive impacts of these natural and human-shaped disasters upon animate and inanimate milieus has prompted nations and global consortia to develop organized risk and hazard efforts and tools. These include early warning, appraisal, communication systems, intervention, and prevention efforts, (Marsella, 2016). Human society has always approached most emergent problems with dissimilar methods that diametrically appear to be proportionate to prevalent knowledge at the time. It swung between scientific investigations and conclusions, and deductions from conspiracy theories, with each detracting the other and the both cohabiting in mutual mistrust. Scientists and other professional bodies have oftentimes found the cause and solutions to

some of the problems through intensive research, and other times, it remains mystery for human comprehension. Situated in the latter category are the intermittent recurrences of several epidemic and pandemic disease/virus in human history, which invoke divisive debates and destructive propaganda in the course of desperate search for their root causes and cure.

The current outbreak of SARS-CoV-2 is no exception. Twists of information by conspiracy theorists have often tended to disparage scientific studies of causes and effects of viruses. It is rife for many diseases that have afflicted human race before the outbreak of coronavirus (Covid-19) in Wuhan City in China in December 2019. In significant ways, it characterized the previous coronavirus outbreaks that included Severe Acute Respiratory Syndrome (SARS), identified in Southern China in 2003, and Middle East Respiratory Syndrome (MERS), first reported in Saudi Arabia in September 2012, (Arinjay, Kirsten, Vikram, Frieman & Mossman, 2019). In addition, the inabilities of scientists to detect in a record time, causes and effects of many other diseases/viruses prior to the present experiences, caused fatalities on humanity.

In these categories was the Plague of Justinian that struck in the 6th Century and killed as many as 50 million people, perhaps half the global population at the time. On the other hand, the Black Death of the 14th Century – likely caused by the same pathogen – killed up to 200 million people. In same vein, Smallpox killed as many as 300 million people in the 20th Century alone and some 50 to 100 million people died in the 1918 influenza pandemic – numbers that surpassed the death toll of World War One, which was being fought at the same time, (Walsh, 2020; Harding & Lanese, 2020). Since the coronaviruses in their generality sprang up, SARS infected more than 8,000 people and resulted in nearly 800 deaths, and MERS infected 2,500 people and led to more than 850 deaths, (Stewart, Connelly & Robinson, 2020). Beginning from the first outbreaks of Ebola in Sudan and Democratic Republic of Zaire Congo in 1976 to 2018/2019, the global infections and death tolls are 31,095 and 12,950 respectively, (World Health Organization - WHO, 2020). Lassa fever has also infected and killed many people and still inflicting fatality on human population.

The implication is that viruses and diseases with the resulting fatalities are not entirely new to human environment; rather, they have only changed much more in public perception and reactions from scientists and conspiratorial theorists for several interconnected reasons. These ranged from varied contour in the virus mutations, increased inexplicable lag in reliability of scientific enquiry, continuous surge in blame game to locate a scapegoat, to admixture of ignorance with idiosyncratic nature of man that promote misinformation against scientific endeavours. The latter issue lack premises for conspiracy theories to substantiate or validate any cause-effect relationships in the conversion box of their unscientific claims. Perhaps, a further search for renewed relevance in the business of misinformation might have impelled some interested parties in the narratives about COVID-19 to invent conspiracy theories as disincentive to clutch scientific logic and explanations of the virus.

Among the conspiracy theories currently circulating are ones suggesting that the 5G network activated the virus, that the virus is a bioweapon released deliberately by the Chinese, or that Bill Gates is using it as cover to launch a global surveillance regime by implantation of chips through vaccine. Across nations, there is this expressed belief by citizens that the pandemic is a hoax forged by cabals to benefit themselves with the scarce resources and decision-making positions in the country. In fact, it did appear, to a reasonable extent, that the essence of associating conspiracy theories with the Covid-19 might be to blur the causative factors of the virus and thus create doubts about the embodiment of scientific logic. It has introduced many misconceptions about the virus and created parallel power blocs whereby each is preoccupied with defence of its roles in the saga.

While some may be quick to dismiss these stories as having little impact on real-world behaviour, recent events including the destruction of property, racially fueled attacks against Asian Americans and demonstrations espousing resistance to public health orders

countermand such conclusions, (Shahsavari, Holur, Tangherlini, & Roychowdhury, 2020). In the circumstance, suppression of scientific logic and circulating misinformation gives conspiracy theorists an edge in the contestation. Ironically, the disagreements among the scientists on the cause of Covid-19, largely discredits their logic and lends supports and credence to the premises of conspiracy theories. The proponents supply adherents of conspiracy theories with the needed information that satisfies their curiosity about the virus, despite that majority subscribe to scientific logic.

The clusters of competing schools of thought engaged in the debate bordering on the origin of the virus and other sundry claims about its spread and cause of deaths have heavily politicized the Covid-19 pandemic. It thereby distracted attention to the real problems, and confused how to collaborate and get it solved. The distraction influenced the increased numbers of infections and death tolls at national and global levels. It thus necessitates this research, which the major aim is to interrogate the misinformation built on conspiracy theories on COVID-19 within the context of scientific logic. The contradiction of scientific investigations and validation, including the roles it played in influencing global response to contain the spread, infection and prevent deaths related to Covid-19 provided lessons for future outbreak of global health challenges and the dangers posed by conspiracy theories.

Conceptual Clarification

A. Coronavirus Pandemic

The coronavirus family (Coronaviridae) is the largest in the order Nidovirales. Coronavirus consists of two subfamilies, Letovirinae and Orthocoronavirinae. The subfamily of Orthocoronavirinae comprises four genera – alphacoronavirus, betacoronavirus, gammacoronavirus and deltacoronavirus. By the structure of their nexuses in the family, studies show that alphacoronavirus and betacoronavirus exist in mammals, whereas gammacoronavirus and deltacoronavirus exist primarily in birds, (Arinjay, Kirsten, Vikram, Frieman & Mossman, 2019). The SARS-CoV-2 belongs to a family of single-stranded RNA viruses known as coronaviridae, a common type of virus, which affects mammals, birds and reptiles. In humans, it commonly causes mild infections, similar to the common cold, and accounts for 10-30% of upper respiratory tract infections in adults. The SARS-CoV-2 is a new strain of coronavirus that was not previously identified in humans until the outbreak in late December 2019.

At inception, the virus was understood to have originated in a food market in Wuhan and subsequently spread from animal to human. Some research has claimed that the cross-species transmission may be between snake and human; however, this claim has been contested. In other words, it is currently unclear where the virus has come from, (Stewart, Connelly & Robinson, 2020). Apart from SARS-CoV, MERS-CoV and the novel SARS-CoV-2, there are four other sets of subsisting corona viruses that have been recognized to cause the common cold in humans, which include HCoV-OC43, HCoV-NL63, HCoV-HKU1, and HCoV-229E, (Arinjay, Kirsten, Vikram, Frieman & Mossman, 2019).

The symptoms presented by common corona virus include fever and dry cough, with some patients presenting respiratory symptoms (e.g. sore throat, nasal congestion, malaise, headache and myalgia) or even struggling for breath. Severe cases can cause pneumonia, severe acute respiratory syndrome, kidney failure and death. The World Health Organization (WHO) classified the SARS-CoV-2 as a pandemic, (Qui, Shannon, Mao & Chu, 2017) and the criterion for the designation reflects its spread globally (Grennan, 2019), which examples are previously cited.

B. Conspiracy Theory

Conspiracy is a term that has remote origin. It is well established in the English language and derived from the Latin *conspirare*, meaning to breathe together, (Keeley, 1999). It signifies the joining-together of two or more individuals and their acting in collusion to

achieve a desired outcome. The expressions such as ‘conspiracy to commit murder’, ‘conspiracy to defraud’ and ‘conspiracy to commit genocide’ are enshrined in legal systems around the world and refer to offences involving an arrangement or a joint endeavour to perpetrate a crime, (Basham, 2003). Conspiracy theories underline these secretive plots and have the tendency to arise during times of crisis, such as periods of political instability, economic threats and public health crises, creating even more chaos (Olive & Wood, 2014).

In a broadest sense, therefore, conspiracy theory would be an explanation, either speculative or evidence-based, which attributes the causes of an event to a conspiracy or a plot, (Byford, 2011). From the foregoing explanations, Lewandowsky, Cook, Ecker & Linden, (2020), identified seven traits of conspiratorial thinking, from which one understands conspiracy, which are:

- Nefarious Intent
- Something Must Be Wrong
- Contradictory
- Overriding suspicion
- Persecuted Victim
- Immune to Evidence
- Re-interpreting Randomness

However, Pipes (1997), further divided the conspiracy theories into two categories, “petty” and “world”. Firstly, petty conspiracy has always been with us, e.g. for every Marc Antony who slew a Caesar, there must have been two dozen whom the authorities suspected of plotting to do the same. Secondly, ‘world’ conspiracy theories are recent inventions, “emerging from the distinctive history of Europe and dating back two and a half centuries, to the Enlightenment”. The ‘world’ conspiracy theories has widespread implications, both in meaning, outreach and impacts and therefore fall within the category applied to COVID-19.

C. Scientific Logic

Conceptualizing Science and Scientific Logic that follows defined methods for arriving at truth in a study are succinctly discussed, in order to establish the distinction between them on the one hand, and speculation or guesses on the other. First, the layout helps to distinguish between what is scientific logic and what are not, and further presents scientific methods that are nonexistent in conspiracy theories, usually formed from ordinary propaganda. Second, it identifies steps in scientific logic, which makes every scientific enquiry or investigation to assume a rigorous process regulated by strict procedural rules.

Fundamentally, science is the observation, identification, description, experimental investigation, and theoretical explanation of natural phenomena. It is a system of acquiring knowledge based on scientific process or method in order to organize a body of knowledge gained through research’. In addition, research, is the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions. It is the intellectual and practical activity encompassing the systematic study of the physical and natural world through observation and experiment, (Wilson, 2009).

As an embodiment of logical reasoning, science has different branches based on the subject of study. The physical sciences study the inorganic world and comprise the fields of astronomy, physics, chemistry, and the Earth sciences. The biological sciences such as biological and medicine study the organic world of life and its processes. Social sciences like anthropology and economics study the social and cultural aspects of human behaviour, (Rogers, 2020). Conspiracy theory conceived outside contradictory findings from scientific investigation may be strange to the first two types but visible in social sciences behaviour.

The dictionary definitions of logic show how closely the term is tied to or related with scientific method and principles of establishing proof of statements. In one hand, it is a method of human thought that involves thinking in a linear, systematic manner about how a problem can be solved. Thus, logic is the basis of many principles including scientific method. It is the study of the principles and criteria of valid inference and demonstration. The scientific method has been the gold standard for investigating the natural world. It involves how scientists correctly arrive at new knowledge, and update their previous knowledge. It consists of systematic observation, measurement, experiment and the formulation of questions or hypotheses, (Shuttleworth & Wilson, 2009).

Four activities observed in scientific method include formulation of hypothesis, collection of data, testing of hypotheses and conclusion. It is followed by another five steps of the scientific method – definition of research, identification of the research basics, designing the experiment, observation and analysis, conclusion and publishing, (Shuttleworth, 2008). The findings published follow scientific methods, with systematically related and logically presented inferences, for the use of other researchers seeking to reconfirm the method and the result. Essentially, conspiracy theory or misinformation erodes these scientific methods. Instead, it is a surreptitious conjecture embodying wild claims without evidence or authentication but elaborately packaged to cause confusion and mischief.

Literature Review

Butter, (2020), stated that ‘conspiracy’ has a long history, but the actual term “conspiracy theory” emerged much more recently. The root lay in the U.S where the Central Intelligence Agency (CIA) invented the term in 1967 to disqualify those who questioned the official version of John F Kennedy’s assassination and doubted that his killer, Lee Harvey Oswald, had acted alone. The narrative reflected divisions in the attribution claims. The first version claimed that the CIA literally invented the term in the sense that the words “conspiracy” and “theory” had never been used before in combination, while the alternate version acknowledged that the term existed before, but that the CIA intentionally created its negative connotations and so turned the label into a tool of political propaganda. Therefore, it was only a few decades ago that the term took on the derogatory connotations it has today, where to call someone a conspiracy theorist functions as an insult.

According to Barkun, (2016), conspiracies are actual covert plots planned and/or carried out by two or more persons. Generally, conspiracy is an intellectual construct, a template imposed upon the world to give the appearance of order to events. Most conspiracy theories exist as part of stigmatized knowledge – that is, knowledge claims that have not been accepted by those institutions we rely upon for truth validation. It has been deeply entrenched in the U.S system and carved a niche for perceiving events; hence, conspiracy theories play an important role in U.S. democracy. On how and why they circulate through mass culture, it was found that it helps the people better understand society as a whole. Fonster, (2008), further noted that from ‘The Da Vinci Code’ to the intellectual history of Richard Hofstadter, dismissing conspiracy theories as pathological or marginal, flattens contemporary politics and culture because they are contrary to popular portrayal – an intense articulation of populism and, at their essence, are strident calls for a better, more transparent government.

To this extent, Zonis & Joseph, (1994), posited that many of these narratives take the form of conspiracy theories, commonly defined as explanatory beliefs of how multiple actors meet in secret agreement in order to achieve a hidden goal that is widely considered to be unlawful or malevolent. The essence, according to Pipes, (1997), is that conspiracy theory is frequently related to crisis-situations that the cause hovers in speculative thinking and while some have turned out to be true (e.g. the Watergate and Iran–Contra scandals); most conspiracy theories in history have no evidence to support them, (Prooijen & Douglas, 2017). Similarly, Sunstein & Vermeule, (2009), cited the allegations that the Central Intelligence

Agency (CIA) was behind the assassination of President John Fitzgerald Kennedy (JFK) or that the Bush administration was involved in plotting the 9/11 terrorist attacks to represent well-known examples of conspiracy theories as explanations of societal crises. Each era has had a peculiar experience in peddling conspiracy theories to explain one form of societal problems or another. While each crisis-situation and the conspiracy theory ascribed to it might vary, lack of proof has not deterred the prevalence of conspiracy theories.

In most part, Basham, (2018), believed that conspiracism is no longer the province only of small, isolated coteries; instead, it now has the potential to make the leap into public discourse. Formerly, it was associated with “some small and hidden group” that manipulated events, but evidences show that a conspiracy theory can be local or international, focused on single events or covering multiple incidents and entire countries, regions and periods of history. Oliver & Wood, (2014), argued that conspiracism is not a product of greater authoritarianism, ignorance, or political conservatism, rather, the likelihood of supporting conspiracy theories is strongly predicted by a willingness to believe in other unseen, intentional forces and an attraction to Manichean narratives. For instance, Manichean principle operates with a basic doctrine of a conflict between light and dark, matter being regarded as dark and evil, (Manichean - Dictionary.com).

A common idea, which Abaido & Takshe, (2020), observed among lay people, journalists and academics seem to be that we now live in an “age of conspiracism”. The assumption is understandable; hence, conspiracy theories can be found everywhere on the Internet and statistics reveal that large portions of ordinary citizens endorse them for a wide range of topics. In the first place, the people who believe in and promote conspiracy theories on social media do not trust powerful groups who they consider to be withholding information, such as politicians and drug companies. Conspiracy theory seeks to contradict ideas promoted by the powerful groups and largely discredit them. The social media offers a desired platform to nurture, disseminate, promote and sustain conspiracy theories by providing fertile grounds to ensure they flourish and percolate through the system. It is instrumental in igniting public participation in national discourse, which hitherto eluded them and explains the reason COVID-19 pandemic could not find solace in government whims and caprices but escalated by the critical publics from both negative and positive dimensions.

Dwelling on the negative landmark, Lynas, (2020), noted that, as the COVID-19 crisis worsens, the world also faced a global misinformation pandemic. Conspiracy theories that behave like viruses themselves are spreading just as rapidly online as SARS-CoV-2 does offline. Looking at a swamp of social media hysteria since the outbreak of COVID-19, little doubt exists that the expanse of conspiracy theories, in the contemporary time, has began to strengthen the raging arguments or the impression that it has found access to the mainstream media and now trending cultures in most systems. In that order, Evans, (2020), argued that conspiracy theories infect us faster than the virus itself. The basic idea behind all of them is that the origins of COVID-19 in Wuhan, home to the Wuhan Institute of Virology, is suspicious. Some claim that it escaped the lab accidentally after being used in a regular (if risky) experiment, or a bioweapons program. Others suggest it was released intentionally, though it gets convoluted when you try to determine who, exactly, was being attacked.

Similarly, it is argued that the COVID-19 pandemic is a fertile breeding ground for conspiracy theories. The reason, according to Lewandowsky, Cook, Ecker & Linden, (2020), is that when people suffer a loss of control or feel threatened, they become more vulnerable to believing conspiracies. Beyond vulnerability, they also unleash aggression on the perceived objects of the conspiracy. It has happened in many occasions in history and sufficed for mention. The Black Death in the 14th century inspired anti-Semitic hysteria, and when cholera broke out in Russia in 1892, the blame fell on doctors and crowds hunted down anybody in a white coat. The same is applicable to virus outbreaks, exemplified by the 2015-16 Zika virus outbreaks. Most importantly, Olive & Wood, (2014), opined that conspiracy

theories claim that the virus outbreak was the result of a biological warfare rather than a natural occurrence. The attribution has always been a serious cause of disagreement among experts and onlookers.

However, Shahsavari, Holur, Tangherlini & Roychowdhury,(2020), amplified the common denominator of conspiracy theories, by identifying that rumor and conspiracy theories thrive in environments of low confidence and low trust. Hence, conspiracy theories related to the Covid-19 pandemic are proliferating given the lack of any authoritative scientific consensus on the virus, its spread and containment, or on the long-term social and economic ramifications of the pandemic. Thus, the spread of conspiracy theories relating to COVID-19 succeeded in engulfing the imagination of not only the Americans but also the Europeans and other continents of the world, in exponential proportion. EU DisinfoLab, (2020), cited few examples from Italy, France and Spain that provided deep insight on how the pandemic turned into an infodemic, thereby making old and new conspiracy theories to find a way to take over the public debate.

In corroborating the new wave in publicity accorded COVID-19, Abaido & Takshe, (2020), stated that unlike what happened when other strains of corona viruses occurred; information on SARS-CoV-2 outweighs those of SARS and MERS. The reason is that social media has been widely discussing COVID-19, caused by the novel corona virus much more than any media did for the SARS and MERS. In other words, traditional media, social media, and other information sources have also been discussing SARS-CoV-2 in more detail and depth. The discussions also made misinformation about the virus, the origin, cause, effects and cure to be commonplace.

Although many scholars discuss the highlighted issues in isolation and most times concentrate on conspiracy theories, this study combined both and went further to discuss the politicization of COVID-19, thereby, explored the nexus of scam and travesty of scientific logic in stating the consequences of conspiracy theories on COVID-19 saga. It thus exposed the adventure of conspiracy theories in a world supposedly governed by scientific knowledge.

Theoretical Framework

The study leveraged on theory of propaganda in explaining how its application on the corona virus (Covid-19) pandemic fronted prototype of unproven ideas to dispel scientific logic on the origin and nature of the virus. It explained how the misinformation created confusion that gave space to conspiracy theories and thereupon resulted in a skewed public perception and hazy response system to the management of the virus across the world. In retrospect, the theory of propaganda emanates from the works of writers like Lasswell, (2013), Herman & Chomsky, (1988), Kim, (2007), Steinfatt, (2009), Mullen& Klaehn, (2010), Smith, Lasswell & Casey, (2015) and Smith, (2020), etc. It has spanned centuries, manifests in virtually all human activities in varying perspectives – politics, communication, economy and religion, albeit misinformation of the public, which is the focal concern of propaganda theorists.

From the political-communication perspectives, Herman & Chomsky, (1988), focused on media institutions, the network of their control mechanism, and the influences on the masses. They developed a Propaganda Model (PM), which is a conceptual model in political economy to explain how propaganda and systemic biases function in corporate mass media. The model explains how populations are manipulated and how consent for economic, social, and political policies is manufactured in the public mind due to this propaganda. The theory posits that the way in which corporate media is structured (e.g. through advertising, concentration of media ownership, government sourcing) creates an inherent conflict of interest that acts as propaganda for undemocratic forces. It emanates from the fact that the powerful are able to fix the premises of discourse, to decide what the general populace is

allowed to see, hear and think about, and to ‘manage’ public opinion by regular propaganda campaigns, as evident in the case of COVID-19 among world leaders.

Etymologically, Smith, (2020), posited that the use of propaganda might have begun in Athens about 500 BCE, as the study of rhetoric (Greek: “the technique of orators”). In ancient Greece and Rome, there was much writing on election tactics. In 16th-century Italy, Machiavelli discussed the uses of calculated piety and duplicity in peace and war. In Shakespeare’s plays, Mark Antony (in Julius Caesar) and the Duke of Buckingham (Richard III) displayed the principles of propaganda and discussed them in words and concepts that anticipated 20th-century behavioral scientists. Such propaganda stratagems was referred to as the seizure and monopolization of propaganda initiatives, the displacement of guilt onto others (scapegoating), the presentation of oneself as morally superior, and the coordination of propaganda with violence and bribery. Overtime, time and space has modified the dimension.

Lasswell, (2013), presented similar feature of propaganda that appeared in the past whenever a tyrant breaks up a social system sanctioned by antiquity. Even in modern life, the increase of facilities of communication has brought about a state in which discussion and persuasion has supplanted violence and coercion as a means of changing opinion or modifying action. It has made propaganda mere dissemination of information – facts, arguments, rumors, half-truths or lies – to influence public opinion. Deliberateness and a relatively heavy emphasis on manipulation distinguish propaganda from casual conversation or the free and easy exchange of ideas, (Smith, Lasswell, & Casey, 2015; Smith, 2020).

In propaganda, an interested party carries out the propagation of information, especially, in a tendentious way in order to encourage or instill a particular attitude or response. The term currently carries a negative meaning, evoking the idea of an agent deliberately manipulating the way a recipient absorbs and interprets information, (Kim, 2007). It became a form of persuasion involving a mass message campaign designed to discourage rational thought and to suppress evidence. It means spreading of information in supports of a cause and it is not so important whether the cause is just or not; it is often used in a negative sense, especially for politicians who make false claims to be elected or spread rumors to get their way. Since the coming into effect of the 21st-century, the complex nature of human society has resulted in scholars articulating ten (10) expository questions (Steinfatt, 2009), that anchor investigation and understanding of contemporary analysis of propaganda:

1. What are the goals of the propaganda? (What changes are to be brought about? In whom? And when?)
2. What are the present and expected conditions in the world social system?
3. What are the present and expected conditions in each of the subsystems of the world social system (such as international regions, nations, lesser territories, interest groups?)
4. Who should distribute the propaganda – the propagandists or their agents?
5. What symbols should be used?
6. What media should be used?
7. Which reactors should the propaganda aim at?
8. How can the effects of the propaganda be measured?
9. By what countermeasures can opponents neutralize or suppress the propaganda?
10. How can such countermeasures be measured and dealt with?

The theory argued that in the modern conditions, each act of propaganda is apt to have effects in several parts of the world. Some of these may boomerang unexpectedly against the propagandists themselves unless they can visualize the global system and its components and anticipate the problems that may arise. This is the case of conspiracy theories built around coronavirus (COVID-19). Many of them lack proof of evidence, especially the 5G network,

planting of chip for human control through vaccine, design to restructure the world system by technological bayonet and the Bioweapon fixations. These are in addition to many other pockets of conspiracy theories or propaganda that greeted the outbreak of the coronavirus.

The common ground, which the theory re-emphasizes, is that propaganda has been utilized throughout recorded human history in diverse media, both written and visual. The derogatory use of the word “propaganda” itself only came about in the early twentieth century, with the rise of states and regimes, which could widely disseminate political ideologies and messages in an unprecedented, centralized manner through mass media and the arts, (Kim, 2007). The primary goal is to misrepresent facts validated by scientific investigation; and enthrone confusion in the absence of evidence to validate contrary claims.

According to D’Mello, Lehman, Pekrun & Graesser, (2013), confusion that accompanies a state of cognitive disequilibrium triggered by contradictions, conflicts, anomalies, erroneous information and other discrepant events, could be beneficial to learning if appropriately induced, regulated and resolved. Although this was not the case with COVID-19 misinformation, there is sufficient reason that society eventually learned the falsehood in conspiracy theories and facts in scientific logic. Therefore, assigning truth-values to confused discourse (ambiguity, super-valuation) reveals the arguments as invalid or non-deductively weak, (MacFarlane, 2005). Thus, the conspiracy theories related to COVID-19 that lack in scientific logic are invalid.

Interrogating Contextual Issues that Underline COVID-19 Conspiracy Theories

Conspiracy theories underlying COVID-19 are varied but the emphasis in this study centered on three – Bioweapon, 5G causative factor and Vaccine, which was claimed to serve as a ploy to implant chips in the body of the recipients and thereby remotely control human behaviour. The mentioned three types harbour or bear explanatory implications for other ranges of misinformation associated with coronavirus (COVID-19) pandemic. They have not only attracted wide attention in literature but also exacerbated fears about the virus. Interrogating their correlation with the virus disabuses the falsity of tags affixed to coronavirus (COVID-19) and the attendant scapegoats of China in the blame-game. The various strands of the theory provide the strainer for sieving out the substances in the claims, as distinctively and elaborately discussed hereunder.

The Bioweapon Construct

Documentary on bioweapon and biological warfare litters literature and predates the outbreak of coronavirus pandemic and other diseases with high fatality implications. A biological weapon is a subset of a larger class of weapons referred to as weapons of mass destruction, which also includes chemical, nuclear and radiological weapons. Biological agents, like anthrax, botulinum toxin and plague can pose a difficult public health challenge causing large numbers of deaths in a short amount of time while being difficult to contain. They are microorganisms like virus, bacteria, fungi, or other toxins that are produced and released deliberately to cause disease and death in humans, animals or plants, (World Health Organization - WHO, 2018).

The feasibility of designing and dispersing biological weapons varies in difficulty depending on the biological agent in question. Firstly, bacillus anthracis, an exceptionally deadly and versatile pathogenic bacterium that causes the disease anthrax, is naturally occurring in the environment and can infect humans and animals. Anthrax is considered one of the leading potential bioweapons. Secondly, the employment of synthetic biology to engineer novel bioweapons from pre-existing pathogens using Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) or Deoxyribonucleic Acid (DNA) synthesis is far more demanding in terms of laboratory requirements and expertise, (Patel &

D'Souza, 2020). The conjecture surrounding the latter explains the suspicion that coronavirus is a bioweapon and experts including scientists vacillate without specificity on the dialogue.

However, the accusations that epidemics or pandemics are “biological warfare” are not new. Humans rightly have an innate fear of disease and this fear results in chain reactions. The attendant assertion that “this plague is a deliberate attack” is a trope that is thousands of years old. In addition, disease outbreaks have long been blamed on convenient scapegoats, from medieval plagues, which were often blamed on the Jews or heretics, to more recent conspiracy theories, (Kaszeta, 2020), that accompanied the outbreak of novel COVID-19 pandemic and featured China prominently as the masterminds, either accidentally or deliberately. Therefore, an insight into the background of the phenomenon is appropriate.

Introspection into Bioweapon Conjecture

Historically, man has used poisons for assassination purposes ever since the dawn of civilization, not only against individual enemies but also occasionally against armies. During the past century, more than 500 million people died of infectious diseases, and tens of thousands of these deaths were due to the deliberate release of pathogens or toxins. Example was the use of bioweapon by the Japanese during their attacks on China during the Second World War, (Frischknecht, 2003). It means that bioweapon is synthetically developed, accidentally or intentionally released and sometimes deployed for self-defence in warfare.

The first use of biological weapon in warfare occurred in 1347 when Mongol forces allegedly catapulted plague-infested bodies over the walls into the Black Sea port of Caffa (now Feodosiya, Ukraine). Probably, the ships from the besieged city returned to Italy with the plague and started the Black Death pandemic that swept through Europe for four years and killed some 25 million people (about one-third of the population). Similarly, in 1710, a Russian army fighting Swedish forces barricaded in Reval (now Tallinn, Estonia) hurled plague-infested corpses over the city's walls, (Schneider, 2014), and infected many people.

In 1763, British troops besieged at Fort Pitt (now Pittsburgh) during Pontiac's rebellion passed blankets infected with smallpox virus to the Indians, causing a devastating epidemic among their ranks. In addition, during World War 1 (1914-18), Germany initiated a clandestine program to infect horses and cattle owned by Allied armies on both the Western and Eastern fronts, (Frischknecht, 2003), with intent to poison the consumers. There was a repeat of similar scenario in 1979, when the Soviet secret police orchestrated a large cover-up to explain an outbreak of anthrax in Sverdlovsk, now Ekaterinburg, Russia, with poisoned meat from anthrax-contaminated animals sold on the black market. It was eventually revealed to have been due to an accident in a bioweapon factory, where a clogged air filter was removed but not replaced between shifts, (Enserink, 2002).

Essentially, these instances buttress the fact that certain deaths are related to viruses deliberately manufactured by man. Further examples show that in 1971, smallpox broke out in the Kazakh city of Aralsk and killed three of the ten people that were infected. It was speculated that they were infected from a bioweapons research center on a small Island in the Aral Sea. In the same area, on other occasions, several fishermen and a researcher died from plague and glanders, respectively, (Miller, Engelsberg & Broad, 2002). The Japanese tested at least 25 different disease-causing agents on prisoners and unsuspecting civilians. The evil exploits continued and graduated to a point where Japanese planes were dropping plague-infested fleas over Chinese cities and sometime distributed them by means of saboteurs in rice fields and along roads. Some of the epidemics they caused persisted for years and continued to kill more than 30,000 people in 1947, long after the Japanese had surrendered, (Harris, 2002).

Since the adoption and signing of the 1925 Geneva Protocol after the horrors of the First World War, and the renewed Biological and Toxin Weapons Convention (BTWC) in 1972 banning the use of biological and chemical weapons in war, (Schneider, 2014), several

countries have acted and continued to act in breach. In the remote past, the defunct Soviet Union produced and stockpiled tons of anthrax bacilli and smallpox virus, some for use in intercontinental ballistic missiles, and engineered multidrug-resistant bacteria, including plague. They also worked on haemorrhagic fever viruses, some of the deadliest pathogens that humankind has encountered, (Frischknecht, 2003). The US, UK, Russia, China, Iran, Israel, North Korea, India and South Africa, etc, are additional pointers in the categorization.

The violations were rampant during the run up to the Second World War, Cold War era and since after the beginning of the present world order. The proliferation of bioweapon enrichments by various countries has been on the increase. Nevertheless, in some instances, evidences show that some information surrounding bioweapon are mere fabrication and sometimes based on conspiracy theory. Many of the allegations are not only unfounded but have been exploited either as propaganda or as a pretext for war, with the case of Iraq as an example during the era of Saddam Hussein. Retrospectively too, there was a conspiracy theory that propagandists circulated, linking HIV to a biological weapon. It alleged that either KGB or CIA scientists developed HIV to damage the USA or to destabilize Cuba. On the heel of the conspiracy theory, in 1997, Cuba officially filed a complaint under Article 5 of the BTWC, accusing the USA of releasing a plant pathogen, (Leitenberg, 2001), but this was never proven as a fact but stereotype of conspiracism fueled by calculated mischief.

From the case of COVID-19, it is most apparent that the outbreak obviously converted to another recurrence of the subsisting trends in the global historical pamphlet, with the usual scapegoat trappings, as the case of China portends. This was despite the fact that experts and scientists, amid infrequent discordant conclusions that portend misgivings, roll out reports on scientific investigation and the resultant discoveries about the origin of the virus, which in many occasions absolve China of conspiracy or complicity in bioweapon fuss.

Stereotyping China in Bioweapon Conspiracy

With the rise of Chinese economy, science and technology and the consequent rivalry with the US and other European super powers, the spiraling competition has attracted global attention and division in patronage and alignment. The competition was the least expectation owing to decades of American dominance in global affairs and thereby, not welcomed with cheers. The inherent economic and technological lynching plots nurtured by the competitors could trigger blame game on a matter of global significance to achieve such goals. Thus, the approximation of coronavirus pandemic to Bioweapon than of natural occurrence and situating China at the center of the matrix might be one of the manifestations of the arranged arsenals to disparage its potentials or a ploy by China itself to decapitate its challengers.

The first assumption that presented discordant interpretation was a persistent claim that COVID-19 was a product of Bioweapon, which China was developing for ulterior motives, including ‘an attempt to control Chinese populations’, (Coleman, 2020), but it accidentally escaped from the lab in the process of the formulation. Besides, the US and other European countries shared varied suspicion about the origin of the virus. Several American politicians, such as Senator Tom Cotton, suggested that the coronavirus is a Bioweapon leaked from the Wuhan Institute of Virology, (Amjed, 2020). To strengthen this perspective, the creator of Bio Weapon Act – Dr Francis Boyle also claimed that ‘the coronavirus is an offensive biological warfare weapon with DNA-genetic engineering’, (Coleman, 2020).

The intensity with which the USA leadership peddled the bioweapon connection to COVID-19 even when scientists have not concretely associated both in any form of cause-effect symbiotic relationship, portrays inherent controversy characterizing the US-China rivalry in global economic and technological control that finds expression or ventilation through every convenient media, including conspiracy theories and propaganda. Many experts insist that the virus can be artificially engineered, but other contending findings indicate that SARS-CoV-2 is actually novel, even to the world of science; hence, the efforts

to unravel its source. What it portends is that the origin of the COVID-19 remains mere speculation for lack of watertight scientific evidence, but preponderance of views and study still bend to the fact that the virus originated in the seafood market in Wuhan, China.

Reports from Chinese health authorities and the World Health Organization, (Coleman, 2020), substantiated this perspective but then, concerns over coronavirus being a bioweapon have flourished, despite the admission that it is a novel, naturally occurring pathogen. Scientifically speaking, illogicality rarely substantiates vague claims in rational context. There are a number of clear explanations for the emergence of a novel coronavirus, but it does not matter how effectively one counters conspiracies claiming evidence that the virus shows signs of being engineered, (Field, 2020). In significant ways, the rumors of a lab escape or a bioweapon stem from historical amnesia, a caricatured villain, and good old-fashioned racism, (Evans, 2020). Scientists debunked the speculation on a virology institute in Wuhan, where fringe theory claims that the disaster could be the accident result of biological weapon research, (Adam, 2020). Some experts seem to agree it was not the product of human engineering, and based on an elaborate study, concluded thus, 'We do not believe that any type of laboratory-based scenario was plausible'. Other experts and scientists share different views, suggesting the possibility that the COVID-19 could be a product of laboratory experiment, which made the US insist that WHO must investigate it.

Besides, the authors of *Nature Medicine* argued that the SARS-CoV-2 originated in animals, not in a research laboratory, and that humans did not purposefully manipulate the new coronavirus. Some emergent arguments seem to somersault the picture in contradiction. Richard Ebright of Rutgers University's Waksman Institute of Microbiology, a biosecurity expert, emphasized the possibility that the COVID-19 pandemic started as an accidental release from a laboratory such as one of the two in Wuhan that are known to have been studying bat coronaviruses. The Wuhan (Center for Disease Control) and Wuhan Institute of Virology routinely were collected bat coronavirus and studied at BL-2, which provides only minimal protections against infection of lab workers. Another study conducted by the South China University of Technology, concluded that the coronavirus 'probably' originated in the Wuhan Center for Disease Control and Prevention, located just 280 meters from the Hunan Seafood Market often cited as the source of the original outbreak, (Field, 2020).

Contradictions in Bioweapon Thesis

Several reports previously published by many experts and not taken seriously at the earliest stage but reinvigorated by a coalition of well over 200 experts that spread across different countries indicated that traces of coronavirus (COVID-19) was found in sewage samples. Tom Jefferson – from the center for Evidence-Based Medicine (CEBM) at Oxford University, pointed to a string of recent discoveries of the virus's presence around the world before it emerged in Asia as growing evidence of its true origin as a global organism that was waiting for favourable conditions to finally emerge. In the tested specimen collected from Spain, Italy, and Brazil, it found that coronavirus predate its discovery in China, (Barrett, 2020).

Conversely, the authors of a British-Norwegian vaccine study – accepted by the *Quarterly Review of Biophysics*, claimed that the coronavirus's spike protein contains sequences that appear to be artificially inserted. Both a Norwegian scientist Birger Soresen and British oncologist Angus Dalgleish identified "inserted sections placed on the SARS-CoV-2 spike surface" that explains how the virus interacts with cells in the human body. However, Virologists noted that similar sections appear naturally in other viruses; hence, the dismissal of conspiracy claims as total fabrication. The Management at the Wuhan Institute of Virology further explained that the lab had not encountered SARS-CoV-2 until samples from patients with an unidentified pneumonia-like disease were referred to them in December, (Nikel, 2020). It added major twists in a debate questioning scientific credibility.

It is most apparent that the outbreak of coronavirus (COVID-19) pandemic found reasons to accommodate conspiracy theory, at least, it closed the gap created by slowed scientific intervention and incoherent reports. Perhaps, the virus is novel and other startling revelations and findings that will prove or disprove the premises of conspiracism are obvious. Such proof or evidence of origin of COVID-19 will dispel or douse contestation between experts and conspiracy theorists and either dissociate or complicate China in bioweapon claims. Either way, there is no denying the fact that it is not new to associate viruses that resulted in mass deaths with bioweapon, either for political or economic reasons. It does not matter that the disagreements among the rank of experts and uncertainty in providing answers that explain the likely origin of the novel coronavirus detract from scientific veil and feed into the prevailing snub in the origin and intendments for the virus.

The probable position suggests that the tenacity of the disagreement especially from among experts and scientists whom the generality of the society hoped to find relief and lasting answer to the lingered misconceptions about the novel coronavirus has further cast serious aspersions on the sanctity of science in defining social problems. Apart from greatly politicizing everything about the virus, the real danger manifests in the inability of experts to build consensus on a definite origin or source of the virus, including its multilayered nature and adaptability. It continues to result in conflicting scientific investigations and conclusions.

Fifth Generation (5G) and Conspiracy Theory

Technological development and the consequent economic competition among the developed countries of the world characterize the invention in communication technology. Apart from the fact that the trend is not new but general; the tendency towards the innovation in 5G networks is tortuous. While the 5G protocol conforms to scientific configuration and clearly streamlines the mechanism for public analysis, lack of proof of the hazardous effects on the consumers and the environment, which spurred the conspiracy theory into fanfare, reflects maximum illogicality and an unwholesome venture. It is apt to summarily analyze the generic perspective and lay bare the foundation of 5G conspiracy theory, which though lacking as it were in scientific evidence or validation, has enjoyed global media publicity.

Insights on the Generation (“G”) Communication Technologies

Chronologically, before the fifth generation network (5G), there had been first generation (1G), second generation (2G), third generation (3G) and fourth generation (4G) communication technologies, (Adebayo, in Utebor, 2020). For a start, on December 1, 1979, Nippon Telegraph and Telephone (NTT) launched the world’s first commercial phone cellular telecoms network in Tokyo, Japan, (Ogala, 2020). As the first generation (1G) network, it transmitted data in the form of analog signals and generally viewed as a very primitive way of wireless communication. The success crystallized into a significant stride in telephone industry, and thereby necessitated further landmark improvements in its capacity.

In 1991, Radiolinja launched the second generation of mobile networks (2G) in Finland. It brought about radical changes in the signal transmission and heralded a paradigm shift in cellular technology, although the breakthrough could not meet the bandwidth required for e-mail and internet services even at their early stages. The teething challenges paved way for the introduction of 3G in Japan by the NTT DoCoMo in 2001, (Paudel & Bhattarai, 2018). Though not regarded as a single technology, it refers to a set of requirements, developed and published by the International Telecommunication Union (ITU), which prescribed international standards and performance expectations – such as data rates and latency – for each generation. The partnerships of ITU, 3GPP and 3GPP2, (Ogala, 2020), facilitated the remarkable upgrade on the 2G and brought about tremendous improvements in data rates. For same reason, the twilight era of 3G saw the launch of iPhone in 2007, meaning that its network capability was about to be stretched like never before, (Brainbridge, 2019).

However, from 2008, the hype for a new generation network weighed heavily based on the already overstretched usage of the 3G and it marked the birth of 4G, which shared some features of 3G. Just as 3G, there is no single 4G technology (4G is commercially called the “Long Term Evolution” - LTE). Instead, it is a set of requirements, specifically, IMT-advanced, published by the ITU in 2008 after network operators and vendors agreed to retire 3GPP2 and coverage around LTE as the common standard for all future networks, (Ogala, 2020). It was first released in Stockholm, Sweden and Oslo, Norway in 2009 and provided significantly faster data speeds with download capping at over a hundred megabits per second and upload capping at over 50 megabits, (Mukri, 2019).

The quest for further improvements to provide a platform that has larger data-carrying capacity and speed in transmission culminated in the graduation of the 4G communication infrastructure to anchor the 5G network. It is not a technology but a set of requirements that mobile network providers must meet in the advancement of their capabilities. The plan, which the founders called IMT-2020, was contained in the first draft of the requirements for 5G released by ITU in 2015, (Ogala, 2020). It expected the innovation to shape the global standard for mobile communications when completed. Therefore, the 5G, from a report published by GSMA Intelligence portrays two views: first, the hyper-connected vision and second, the next-generation radio access technology, (Paudel & Bhattarai, 2018).

The first view described a new technology where all the useful features from the existing generations like the 2G, 3G and 4G are scraped out to create a better system that can provide the users with broader implications than the 4G and Long Term Evolution (LTE) that exist today. The second view captures generational shift in telecommunication infrastructure because the technology provides a better service than any other existing technology at the time. In the course of the transformation, each phase of migration phase in the generation networks is a layer on each other; hence, 5G is planned to ride on the infrastructure of the previous generations to provide higher speed data, better internet connection, better data experience and most importantly, to connect to the internet of things, (Utebor, 2020).

The Genesis of 5G Conspiracy Theory

In 2008, NASA helped launch the Machine-to-Machine Intelligence (M2Mi) Corp to develop Internet of Things (IoT) and M2M technology, as well as the 5G technology needed to support it. In the same year, South Korea developed a 5G R&D program, while New York University founded the 5G-focused NYU WIRELESS in 2012. The South Korean carriers – KT, LG Uplus and SK Telecom – rolled out live commercial 5G services in December 1, 2018 to become the first country to offer 5G (the fifth generation mobile wireless standard) and promised a simultaneous March 2019 launch of 5G across the country, (Brainbridge, 2019). Most countries planned to start adopting 5G in 2020 and this was set to help drive the Internet of Things (IoT) and big data.

In the run up to the 5G race, the Chinese-made Mi Mix3 Smartphone and Motorola’s 5G Moto Mod, from the Chinese-owned company Lenovo, was expected to ship in 2019, while Apple was not expected to release a 5G-capable phone until 2020, (Schodt, 2020). The expectation that Europe and America would dominate the juicy enterprise seemed dashed when China went ahead of them in the race. The US appeared particularly worried about China, as evidenced by a National Security Council document leaked in January 2018, proposing the creation of a nationalized 5G network to supplement the private sector. The fear is that if China is first to 5G, its burgeoning tech industry will create the next global mobile platform. In same vein, 5G could also give China an edge in the AI race, and more data with which to train algorithms could mean better AI applications, (Finley, 2019).

The development upstaged US, beginning at the domestic level where carriers, gadget makers, and politicians from across the political spectrum worry that what happened to the mobile industries in Europe and Japan could happen in the US if the nation is too slow in

rolling out 5G. The very fact that Chinese technology tended to supplant the efforts of US and European in rolling out 5G first and harvesting the global market potential, sowed seed of envy that began to hunt China. Despite the fact that carriers and politicians hype the potential of 5G, some officials began to worry about the health effects of millimeter waves and those fears were overblown, (Finley, 2019). Sadly, the exaggerated worries coincided with the outbreak of coronavirus and therefore inundated social media with unsubstantiated claims that the transmission of the virus and the frightful fatality is attributable to 5G network.

The 5G conspiracy theory, in a space of barely a month, recorded high traffic in all media platforms in America, Europe and elsewhere across the globe. The astonishing politicization and overwhelming publicity accorded the Covid-19, made the 5G fixation so easy to market to significant population (literate and illiterate) with prominent personalities volunteered to act as its advocates without recourse to scientific logic and explanations. Keri Hilson, popular American singer alleged connection between 5G and COVID-19 in a tweet thus: “People have been trying to warn us about 5G for years. Petitions, organizations, studies... what we are going through are the affects [sic] of radiation. 5G launched in China, Nov 1, 2019. People dropped dead”, (Coleman, 2020).

This was followed by allegations that the viral videos of people ‘dropping on the ground and fainting’ in China, were as a result of 5G radio waves messing with the oxygen levels in blood of the general public. Pastor Chris Oyakhilome was among the advocates. He claimed that the introduction of 5G technology was responsible for the outbreak of the coronavirus pandemic, (Egbunike, 2020). Sheikh Sani Yahaya, leader of the Islamic reform movement Izala, declared the coronavirus a farce, maliciously created by some secret Western agents, and therefore, a premeditated conspiracy, (Ibrahim, 2020). Incidentally, these conspiracy theories related to the outbreak of COVID-19 are very unscientific in logic, unsubstantiated, fictitious and misleading gambits by contending schools of thoughts. The inherent rivalry provides ample evidence to invalidate the assumption.

Rivalries in “G” Communication Technologies as Trigger of Conspiracy

Despite the dizzying advances in data-carrying capacity and decreases in latency, which 5G network might not be an exception, (Brainbridge, 2019), the successive generations of wireless standards, abbreviated to “G”, have unleashed huge economic benefits and competition among the participating countries and investors. The rivalry makes each phase of telecommunication system to increase economic activities with the attendant huge returns on investment and also makes any pacesetting in telecommunication technology not only a goldmine but investment destination both in phone brands, accessories and phone production.

For example, Apple and Google dominated the Smartphone landscape, despite Europe beating the US to 2G and Japan beating the US to 3G. Pushed by Apple, Google, and apps like Facebook, the US led the way in shifting to 4G, leading to huge job and innovation growth as carriers expanded and upgraded their networks, (Finley, 2019). The upgrade to 4G warranted designing mobile devices specifically to support 4G and it helped device manufacturers scale their profits dramatically by introducing new 4G-ready handsets. It was one factor behind Apple’s rise to become the world’s first trillion dollar company, (Brainbridge, 2019). On the contrary, Nokia and Japanese handset makers lost market share at home and abroad as US companies set the agenda for the app economy, (Finley, 2019).

The economic factor has been the real integer behind the struggle to lead in any emergent technological innovation in telecommunication system and this was the fate of 5G. GSMA Report (2018), noted that 5G is expected to yield \$2.2 trillion in GDP and \$588 billion in tax revenue cumulatively over the period from 2020-2034. The mmWave 5G applications will make up an increasing proportion of the overall 5G contribution to global GDP, achieving around 25% of the cumulative total by 2034, which amounts to \$565 billion in GDP and \$152 billion in tax revenue. The Asia-Pacific and Americas regions will have

GDP of \$212 billion and \$190 billion respectively from mmWave 5G. In other words, Europe GDP from mmWave 5G will rise to 2.9% and Americas 2.3%, while Africa annual gain will grow much faster from 2026 onwards, closing the gap between the early and late adopters.

However, Huawei is of course the world's largest manufacturer of telecommunications equipment, and a leader in the development of 5G technology for the next generation of wireless networks. Huawei has supplied about a third of the current 4G wireless infrastructure, (Calhoun, 2020), almost the same way it has done elsewhere around the world. Therefore, it stands in a position of great advantage to get immense benefits from 5G and anything that threatens 5G threatens its economic interests. These threats manifest in the US and UK restrictions or outright ban of Huawei equipments in their 5G technology and soaring apprehension about the safety of 5G roll out in many developing countries, including Nigeria.

The implication is that each country that is involved in 5G programme does not want to board last in the game or consigned to picking leftovers from the bounty harvest. America is more critical about this development and thereby considering the early lead by China as a potential threat to its economy, which has been in serious rivalry with that of the Chinese.

Consequences and Rebuttal of the 5G Conspiracy Theory

The 5G conspiracy theory associated with the outbreak of COVID-19, its spread and fatality has caused apprehension and degenerated into attacks on the 5G Network infrastructure across the world due to lack of clarity on any appealing scientific proof on the virus. It created open door for assumptions that seemed right in the absence of superior logic and bolstered by overwhelming sense of suspicion among countries that are desirous of pricking the national interests of their rivals. The consequences cut across national and international frontiers with each signposting the fluidity of national consciousness and the emerging citizen's response to public health emergency.

Specifically, the 5G conspiracy nexus brought tolls of violence on telecommunication installations in the UK, for a mere widespread belief that it is responsible for the spread of the coronavirus pandemic, (Nwite, 2020). In fact, attacks on 5G towers in the UK were due to the false coronavirus conspiracy theories that blame the spread of the virus on 5G. It led to the burning of 77 mobile towers in UK and Boris Johnson insisted that Huawei equipment could be removed from UK 5G, (Reichert, 2020). There are similar attacks on some 5G towers in Rijswijk, Netherlands, and demonstrators protested the construction of 5G towers in Boyle Heights in Los Angeles, California on July 11, 2020, (Vavra, 2020). The attack aimed at spreading to other continents beyond Europe and the latent intentions, perhaps, were to frustrate the leading Chinese Huawei company efforts in provision of the key components of the 5G technology, probably delay the process of 5G roll out plans and somehow provide time for America and Europe to catch up with the lost gap. Either way, it has not addressed the lacuna apart from mere destruction.

The idea of global attack or protest was first muted by National Association of Tower Erectors (NATE), which is a nonprofit trade association, representing companies in the US, Canada, the UK, China, Israel, Jamaica, Nigeria, Saudi Arabia and Trinidad, raised an alarm for a rumored global protest against 5G that could result in the mobile towers being attacked, (Reichert, 2020). The alarm placed many countries on the side of caution and heightened suspicion about the probable connection between COVID-19 outbreak, the spread and deaths with 5G. It ignited severe policy measures against 5G in other countries and the Nigerian Senate started an investigation on the status of 5G and its potential health impact on citizens, (Egbunike, 2020).

Most concerns about the health effect of 5G center around the technologies that carriers build to meet the 5G requirements – specifically, the use of the millimeter waves, but experts have debunked any inherent harmful effects. On the electromagnetic spectrum, the

millimeter waves roughly lie between the radio waves and visible light, and unlike the lower-frequency radio waves, millimeter waves have smaller wavelengths and generally poor with penetrating vegetation and thick walls (Ogala, 2020), to imply any harmful effects on human.

Both the electromagnetic and radiation component of the conspiracy theory is a nullity. National Association of Tower Erectors (NATE) had argued that the conspiracy theory is false and that radio waves cannot cause a virus. This was amidst claims that 5G has no link to COVID-19, thereby warranting social media to squash false conspiracy theory. Facebook, YouTube and Twitter committed efforts at taking down misinformation. The UK carriers also asked people to stop burning mobile towers. In fact, the UK's national medical director called the 5G conspiracy theory "complete and utter rubbish", (Reichert, 2020). To prove its concerns, the British media regulator Ofcom imposed sanctions against Chris Oyakhilome for airing "unsubstantiated claims" linking 5G to the coronavirus pandemic, (Adebayo, 2020; Nwite, 2020).

Vaccine as brand of Conspiracy

One of the most successful interventions in the history of medicine – vaccination, led to the global eradication of smallpox, the nearly global eradication of polio, and the drastic decrease in the morbidity and mortality associated with other infectious diseases, (Stein, 2017). In same vein, fear and mistrust in vaccines have existed since the introduction of inoculation, (Shapiro, Holding, Samara, Rhonda & Rosberger, 2016). Essentially, opposition to vaccination is not new, it dates back to the Victorian age; thus, fear and controversy accompanied the introduction of every new vaccine since the 18th century. Refusing vaccines started back in the early 1800s when the use of smallpox vaccine in large numbers started. The idea of injecting someone with a part of a cowpox blister to protect them from smallpox faced many criticisms. Even in the United States, parents still associate autism with vaccination, (Boulanger & Gotter, 2017).

Currently, conspiracy beliefs about vaccines are widely endorsed, (Shapiro, Holding, Samara, Rhonda & Rosberger, 2016). Vaccine appears as fertilized ground for conspiracy theory in the health sector. Conspiratorial beliefs have become endemic among anti-vaccination groups that are circulated among anti-vaccination websites, (Jolly & Douglas, 2014). It is compounded in recent years by a decreased trust in the institutions that manufacture or distribute vaccines, (Stein, 2017). Most prevalent is the notion that Big Pharma and other vested interests exaggerate the benefits of vaccines and fail to report the dangers, (Hornsey, Harris & Fielding, 2018). It is a global phenomenon and not a respecter of developed or developing countries; hence, conspiracy theories ascribe many unproven claims to vaccine, everywhere and people based on the misinformation tend to randomly associate incredible things with vaccination.

In Nigeria, the misinformation about some vaccination programmes sponsored by government or foreign organizations abound. The public often associates the vaccination with implanting infertility for birth control or a weapon to exterminate certain tribes and religious group or for collapse of immune system to be receptive to all manners of infections and thereby create big market for drugs manufactured by the western world. In 2017 alone, the medical outreach by the military, which coincided with outbreak of monkeypox, snowballed into conspiracy theory. This was sequel to unfounded rumours that army invaded schools in Anambra state to inject pupils and students with vaccines to tackle monkeypox, and the people who they forcefully injected with the vaccine died, (Eze, 2017).

Expectedly, the rumour caused uproar and made parents withdraw their wards from school. The effects of the incident spread to all the states in the South East region of Nigeria and Yobe state. It attests to the fact that people easily acquiesce to conspiracy theory without any empirical proof to support it. In essence, conspiracy related to vaccine portends obvious

danger to public health, in terms of constraining proactive response system, adherence to genuine initiative for addressing the challenge and creating open access to the facilities by all.

COVID-19 Vaccine Conspiracy Nexus

Since the outbreak of the SARS-CoV-2, the development of a vaccine has been a top biomedical priority, (Knowridge Report, 2020). The world has joined hands to find vaccine for the novel coronavirus and scientists and medical researchers across the globe are scrambling for the first breakthrough, (Coleman, 2020). The striking feature of the scramble in the vaccine saga is the centrality of drug manufacturers and the purported roles of Bill Gates Foundation in exploiting global health crises to push for a hidden agenda. Despite not denying the fact that Bill Gates has been a longtime supporter of vaccinations and so far, donated \$US300 million to coronavirus vaccine efforts, (Chang, 2020), the accompanied misinformation or conspiracy theory created public suspicion about the donations.

In a 2015 speech, Bill Gates warned that the greatest risk to humanity was not nuclear war but an infectious virus that could threaten the lives of millions of people, (Wakabayashi, Alba & Tracy, 2020). The subject of the speech reverberated with all forms of conspiracy theories when the novel coronavirus outbreak occurred in late 2019. The version of vaccine-microchip connection started from an interview that Bill Gates granted in March 2020, during which he was quoted to have said, “We will have some digital certificate” which would be used to show who had recovered, been tested and ultimately who received a vaccine”. In addition, the study funded by the Gates Foundation, which had sought to “discover a technology that could store someone’s vaccine records in a special ink administered at the same time as an injection” (Goodman & Carmichael, 2020) aggravated the suspicion. Consequently, it was claimed that Bill Gates created the virus, patented it and intends to use vaccine to control people, (Ball & Maxmen, 2020).

The alleged foreknowledge of the virus by Bill Gates and the planned use of a future COVID-19 vaccine to implant microchips in billions of people in order to monitor their movements gained supporters particularly among Fox News viewers and Republicans in the US, (Sherr, 2020). The spread of the claim measured in almost exactly the same weight as the claim by a Nigerian Pastor Chris Oyakhilome and others who belonged to the school of thought, that COVID-19 vaccine would be used as a ruse to enthrone a “new world order” led by the anti-Christ, (Egbunike, 2020). The most threatening was when a UK-based Twitter account accused Bill Gates of admitting that the vaccine will no doubt kill 700,000, although promptly denied. In consonance, an Independent Italian MP called for Bill Gates to be referred to International Criminal Court for crime against humanity, (Goodman & Carmichael, 2020). These could be attributed to the antecedents of Bill Gates Foundation.

The foundation has worked to distribute vaccines in developing countries, advocated family planning through greater use of contraceptives and funded the development of genetically modified crops. Those efforts have prompted unfounded accusations that Gates was hurting the world's poor with unnecessary drugs and harmful crops while trying to suppress the global population, (Wakabayashi, Alba & Tracy, 2020:9).

It substantially influenced public suspicion about the undisclosed objectives behind the amount of money that Bill Gates was sinking into COVID-19 vaccine projects with the attendant unproven “claims that quietly proliferated among groups predisposed to spread the message – people opposed to vaccine, globalization or the privacy infringements enabled by technology”, (Ball & Maxmen, 2020). In each case, nobody adduced any scientific evidence to substantiate or back up the claim. The proponents directed less attention at making any inquiry into the scientific truism of the claims, but conjured conspiracy theories predicated on

the mere connections between vaccine and microchip implantation. Apart from the fact that it aroused public curiosity about Bill Gates' investment in founding COVID-19 vaccine, the greater danger is that it may particularly damage what people think about a future coronavirus vaccine, when eventually invented, (Wakabayashi, Alba & Tracy, 2020).

The Latitude of Politics in COVID-19 Vaccine/Treatment Race

Scientific evidences showed that there is no specific treatment for COVID-19. There are also no antiviral medicines currently approved to treat or prevent COVID-19 and no randomized controlled trial evidence that any treatment beyond best supportive care delivers improved outcomes for patients, (Arinjay, Kirsten, Vikram, Frieman & Mossman, 2019). On a special note, the much that has happened is that countries and leaders have differently favoured or promoted either orthodox or traditional medicines for the treatments of COVID-19. The US president, Donald Trump was in the frontline pushing for hydroxychloroquine, Madagascar produced a local herb (COVID-Organics) and several other local mixtures and therapeutic measures have frequently inundate the social media as cures for COVID-19 with underlying contradictions.

The World Health Organization and other experts have continued to be divided in their opinion on the appropriateness of the drugs and other prescriptions without scientific proof. The assumption, no doubt, is that there is lack of trust on public-health authorities who do not inspire confidence when they change their advice from week to week – on facemasks, for example, or on immunity to COVID-19, (Ball & Maxmen, 2020). Almost 80 groups globally are working at break-neck speed to invent the vaccine, even though a vaccine fit for humans normally takes years to develop. In early May 2020, there were 111 potential vaccines for the SARS-CoV-2 that was in different stages of clinical trials, (Coleman, 2020).

Based on the foregoing, there have been intermittent claims that the vaccine has been found but which is not true. In fact, Italy, Israel, Oxford University, US Drug Companies and several other countries and companies spontaneously claimed that they have found the vaccine for COVID-19. Nevertheless, it is incredible that among countries struggling to invent COVID-19 vaccine, Bill Gates was isolated for association with microchip conspiracy. Experts argued that they have found no evidence to support that the coronavirus pandemic is a cover for a plan to implant trackable microchips and that the Microsoft co-founder Bill Gates is behind it, (Goodman & Carmichael, 2020). Scientific investigations and evidences so far reported showed no proof of correlation between vaccine and microchip or anti-Christ phenomenon, both of which continued to trend in social media platforms.

The conspiracy theory could be a strategic scam to condition public psyche to reject such vaccine and cause collateral economic damage to Bill Gates investment. The primary purpose, to say the least, was rather to frustrate Bill Gates from dominating the COVID-19 vaccine scene and thereby whittle down their influence. The rivalry unveils politics of vaccine invention with the inherent struggle to outrun one another in the race to first reap the abundant economic opportunities. The controversy clearly suggests a tough competition to control and dominate the drug economy of eventual vaccine production for COVID-19. The competition clearly rationalizes the earlier claim that Bill Gates invented the virus for economic gains. However, while it is true that whichever pharmaceutical company develops a vaccine could potentially profit from the success, the idea that this potential profit would be a motive to invent a pandemic is far-fetched, (Goodman & Carmichael, 2020).

Conclusion and Recommendations

Conspiracy theories are blazes of social evolution, fueled by growing anxieties about human inventions with the economic drives that mask both corporate and national interests. It has had several trappings in human history and endeavours, and therefore not peculiar to the outbreak of the novel coronavirus pandemic. Conspiracy theorists and misinformation has

had to blame many incidences that cause avoidable harm to humanity and the environment on bioweapon, and radiation from telecommunication infrastructure. Apart from the fact that they are sometimes branded deliberate human contrivances, “the misinformation and false belief in conspiracy about vaccine has always been rife and predates the race to developing vaccine for COVID-19. Foremost is the belief that vaccine can cause autism, which has no basis in empirical evidence”, (Shapiro, Holding, Samara, Rhonda & Rosberger, 2016). It is similar; if not more complex to provide any concrete proof that vaccine could reconfigure the genetic properties of humans. If it is the case, the conspiratorial theorists are yet to provide the scientific evidence

Since the coronavirus took hold in the United States, senior officials in the Trump administration have amplified rumors that the virus emerged from a virology lab in Wuhan despite that public health researchers have traced the earliest recorded cases of the virus to an animal market in the city, (Nikel, 2020). Across history, conspiracy theories have been closely linked to prejudice, witch-hunts, revolutions, and genocide. Many perpetrators of terrorist attacks were known to be keen supporters of conspiracy theories. Conspiracy theories have also driven people to reject mainstream medicine to the point where once-cured diseases are now making a comeback in some parts of the world, (Douglas, Uscinski, Sutton, Cichocka, Nefes, Ang& Derawi, 2019).

In fact, it has resulted in a surge of infectious diseases that had been previously nearly eradicated, (Boulanger & Gotter, 2017). For similar reasons, measles outbreaks in 2019 reached emergency levels in the United States, in addition to other countries such as the Philippines, Ukraine, Venezuela, Brazil, Italy, France, and Japan, (Benecke & DeYoung, 2019). Also, conspiracy theories drive people to reject scientific consensus, most notably the consensus around anthropogenic climate change, (Douglas, Uscinski, Sutton, Cichocka, Nefes, Ang& Derawi, 2019). Fighting misinformation and conspiracy theories about the novel coronavirus has almost been as hard as battling the pandemic itself, (Sherr, 2020).

The summary of the findings in this study is explicitly in denial of conspiracy. None of the three areas of conspiracy theories discussed – bioweapon, 5G and vaccine-microchip implantation, provided scientific or empirical evidence to support the claims. Firstly, it is apparent that the bioweapon claim nearly approximates the requirements for validation of conspiratorial suspicion based on the history of artificial production of similar viruses in the past. However, the incoherent scientific evidences published by experts across their different divides have not empirically established any linkage between the novel coronavirus outbreak and bioweapon conspiracy. For this reason, this study did not either rule out any possibility for bioweapon viewpoint or acquiesce to the claims but optimistic that the findings from WHO’s probe into the origins of the novel coronavirus in Wuhan China when successfully completed could prove Chinese culpability for conspiracy or debunk the claims as baseless.

Secondly, among other studies on the disconnect of 5G roles in the spread and fatality from SARS-CoV-2, researchers at the University of Oregon further debunked the association of 5G with COVID-19 with scientific proof. They studied zebra fish – which they said ‘have similar developmental processes and are similar on a genomic level’ to human – to determine if 5G had any negative health impacts. They exposed the fish to 3.5GHz of radiofrequency radiation – the amount typically used in a cell phone with the technology – for two days, and found no significant impacts on mortality; how the embryos formed or the embryo’s behavioural response to light, (Vavra, 2020). They discarded the claim that 5G radiation is harmful, saying instead that it is predominantly benign.

Thirdly, vaccine conspiracy is significantly misleading and not validated empirically. It emanated from disaffections and long standing oppositions to vaccination and most especially the exploits of Bill Gates Foundation in the medical sector that have continued to arouse suspicion. Fundamentally, no scientific investigation has produced any empirical proof that vaccine and implantation of microchips in the individual recipients underlined the

efforts to invent COVID-19 vaccine. Otherwise, it would not be limited to Bill Gates when other countries and companies are deeply involved in the tasking ventures.

The study therefore, recommends that proactive policies and measures should be put in place to curtail politicization of matters that involve life and death. The quick resort to misinformation with conspiracy footage as a ploy to water down efforts toward addressing emergencies in human environment, more so when related to global health challenges, calls for restraints. In consonance, the study subscribes to the paramount necessity of exemplifying credence in scientific enterprise other than reactionary measures. It means that when science commentators encounter an individual, who holds attitudes in violation of scientific evidence, the scientist should keep repeating the evidence, and to do so as clearly and deftly as possible. It is the defining mission of many scientists to defend facts and to defeat misinformation, and explication is consistent with that mission, (Hornsey, Harris & Fielding, 2018).

References

- Abaido, G.M. & Aseel A. Takshe A.A., (2020). COVID-19: Virus or Viral Conspiracy Theories? *American Journal of Biomedical Science and Research*, 8(2): 45-59.
- Adam, T., (2020). Experts Debunk Fringe Theory Linking China's Coronavirus to Weapons Research. The Washington Post, January 29, <https://www.washingtonpost.com>
- Adebayo, B., (2020). UK Regulator Sanctions Nigerian Christian Channel over 5G Conspiracy Theory Claims. CNN, Tue May 19, <https://cnn.com>
- Amjed, J., (2020). COVID-19 and Conspiracy Theories: A Chinese Virus or a Bioweapon? *Modern Diplomacy*, April 29, <https://moderndiplomacy.eu>
- Arinjay, B., Kulcsar K., Misra V., Matthew F. & Karen M. (2019). Bats and Corona viruses. *MDPI Journal*, 11(1): 27-43.
- Ball, P. & Maxmen A., (2020). The Epic Battle against Coronavirus Misinformation and Conspiracy Theories. *Nature News*, May 27, <https://www.nature.com>
- Barkun, M., (2016). Conspiracy Theories as Stigmatized Knowledge. *Sage Journals*, October 25, <https://journals.sagepub.com>,
- Barrett, A., (2020). The Coronavirus may not have originated in China – Says Oxford Professor – Dr Tom Jefferson. *BBC Science Focus Magazine*, July 6, <https://www.sciencefocus.com>
- Basham, L. (2003). Malevolent Global Conspiracy. *Journal of Social Philosophy*, 34:91-103
- Basham, L., (2018). Joining the Conspiracy. *Argument*, Vol. 3(2), pp.271-290. University of Sassari,
- Benecke, O. & DeYoung S.A., (2019). Anti-Vaccine Decision-Making and Measles Resurgence in the United States. *Global Pediatric Health*, July 24, <https://www.ncbi.nlm.nih.gov>
- Boulanger, A. & Gotter A., (2017). Understanding Opposition to Vaccines. *Healthline*, September 15, <https://www.healthline.com>
- Brainbridge, C., (2019). From 1G to 5G: A Brief History of the Evolution of Mobile Standards. <https://www.brainbridge.be>
- Butter, M. (2020). There is a Conspiracy Theory that the CIA invented the term 'Conspiracy Theory' – Here's Why. *The Conversation*, March 16, <https://theconversation.com>
- Byford, J. (2011). *Towards a Definition of Conspiracy theories*. London: Palgrave Macmillan,
- Calhoun, G., (2020). 5G Risk? Huawei is Small Potatoes Compared to TSMC (Who?). *Forbes*, July 12, <https://forbes.com>
- Chang, B. (2020). More than 40% of Republicans think Bill Gates will use a COVID-19 Vaccine to implant a location-tracking Microchip in Recipients – According to Survey. *Business Insider Australia*, May 24, <https://www.businessinsider.com.au>
- Coleman, B. (2020). A Bioweapon or Effects of 5G? 7 Conspiracy Theories around Corona Virus that will Shock You. *Panache ETPrime Magazine Newsletter*, March 29, <https://m.economicstimes.com>
- Coleman, B., (2020). Italy claims to have developed the first COVID-19 Vaccine: Here is what we know about all the potential Coronavirus Vaccines. *Times of India*, May 8, <https://www.timesofindia.com>
- Dictionary Online, (2020). Definition of Manichean. <https://www.dictionary.com>
- D'Mello, S, Lehman, B. Pekrun R & Graesser A., (2013). *Confusion can be Beneficial for Learning*. Learning and Instruction in Press, (X):x. January,
- Douglas, K.M., Uscinski J.E., Sutton R.M., Cichocka A., Nefes A., Ang C.S., & Derawi F., (2019). Understanding Conspiracy Theories. *Political Psychology*, 40(S1), 3-35; February, doi:10.1111/pops.12568, <https://www.researchgate.net>

Department of Political Science, Ebonyi State University, Abakaliki

- Egbunike, N., (2020). Nigerian Pastor Spreads COVID-19 Conspiracies and Disinformation. GlobalVoices, May15, <https://globalvoices.org>
- Enserink M., (2002). Did Bioweapons Test Cause a Deadly Smallpox Outbreak? Science, 296, 2116-2117. [PubMed] [Google Scholar]
- EU DisinfoLab, (2020). COVID-19 Conspiracy Theories: Comparative Trends in Italy, France, and Spain. The EU Disinfo Lab, April, <https://www.disinfo.eu>
- Evans, N.G., (2020). Where the Coronavirus Bioweapon Conspiracy Theories Really Come From. Global Biodefense, February 27, <https://globalbiodefense.com>
- Eze, J. (2017). Monkeypox: False Rumour Causes Panic in Anambra. Premium Times, October 11, <https://www.premiumtimesng.com>
- Field, M. (2020). Experts know the new Coronavirus is not a Bioweapon: They disagree on whether it could have leaked from a Research Lab. The Bulletin of the Atomic Scientists, March 30, <https://thebulletin.org>
- Finley, K., (2019). The Wired Guide to 5G: What is 5G? the Complete Guide to When, Why, and How. Business News, December 18, <https://www.wired.com>
- Fonster, M. (2008). Conspiracy Theories: Secrecy and Power in American Culture. University of Minnesota Press, <https://www.upress.umn.edu/book-divisions>
- Frischknecht, F. (2003). The History of Biological Warfare. The European Molecular Biology Organization (EMBO) Reports, June, doi:10.1038/sj.embor.embor849, <https://www.ncbi.nlm.nih.gov>
- Goodman, J. & Carmichael, F. (2020). Coronavirus: Bill Gates Microchip Conspiracy Theory and other Vaccine Claims Fact-Checked. BBC Reality Check, May 29, <https://bbc.com>
- Grennan, D. M. D. (2019). What is a Pandemic? *JAMA.*, 321(9):.910- 924. <https://jamanetwork.com>,
- GSMA Report, (2018). Study on Socio-Economic Benefits of 5G Services Provided in mmWave Bands. The WRC series, December, <https://www.gsma.com>,
- Harding, A. & Lanese, N., (2020). The 12 Deadliest Viruses on Earth. Live Science, New York: Future US, Inc. March, <https://www>.
- Harris, S.H. (2002). *Factories of Death: Japanese Biological Warfare, 1932-1945, and the American Cover-up*, Revised ed., Routledge, New York, USA, [Google Scholar]
- Herman, E.S. & Chomsky N. (1988). *Manufacturing Consent: The Political Economy of the Mass Media*. New York: Pantheon Books.
- Hornsey, M.J., Emily A., Harris E.A., & Fielding K.S., (2018). The Psychological Roots of Anti-Vaccination Attitudes: A 24-Nation Investigation. *Health Psychology – American Psychological Association*, Vol. 37(4): 307-315.
- Ibrahim, M., (2020). Coronavirus is a Ghost of the West: Conspiratorial Explanations of the COVID-19 Pandemic among some Religious Leaders in Nigeria. TRAFO – Transregional Research, June 2, <https://trafo.hypotheses.org/24074>
- Jolly, D., & Douglas, K.M., (2014). The Effects of Anti-Vaccine Conspiracy Theories on Vaccination Intentions. *PLOS ONE*, 9, e89177, pp.1-9. <https://www.plosone.org>
- Kaszeta, D. (2020). No, the Coronavirus is not a Biological Weapon. The Washington Post, April 27, <https://washingtonpost.com>
- Keeley, B.L. (1999). Of Conspiracy Theories. *The Journal of Philosophy*, 96(3):109-126, <https://www.jstor.org/stable/2564659>
- Kim, S.S. (2007). *The Chicago School of Media Theory: Theorizing Media Since 2003*. The University of Chicago, <https://lucian.unchicago.edu>
- Knowridge Report, (2020). New Vaccine shows promise in protecting against COVID-19. Knowridge Science Report, May 21, <https://knowridge.com>
- Lasswell, H .D. (2013). The Theory of Political Propaganda. *American Political Science Review*, 21(3): 627-631.
- Leitenberg, M., (2001). Biological Weapons in the Twentieth Century: A Review and Analysis. *Crit. Rev. Microbio.*, 27, 267-320.
- Lewandowsky, S. Cook, J. Ecker, U. & Linden, S.V.D. (2020). How to Spot COVID-19 Conspiracy Theories. Centre for Climate Change Communications, University of Bristol, May 1, <https://sks.to/conspir>, <https://www.climatechangecommunication.org>
- Lynas, M. (2020). COVID-19: Top 10 Current Contemporary Theories. Alliance for Science, April 20
- MacFarlane, J. (2005). *The Logic of Confusion – Remarks on Joseph Camp’s Confusion: A Study in the Theory of Knowledge*. Berkeley: University of California
- Marsella, A.J., (2016). Natural and Human-Made Disasters: Disasters More than a Word. *Engaging Peace*, July 30, <https://engagingpeace.com>
- Miller, J., Engelsberg, S. & Broad W. (2002). *Germs. Biological Weapons and America’s Secret War*. Simon &

Department of Political Science, Ebonyi State University, Abakaliki

Schuster, New York: USA.

- Mukri, I. (2019). A Brief History of 5G. Mobiles, August 16, <https://www.mobiles.co.uk>
- Mullen, A. & Klaehn, J. (2010). The Herman-Chomsky Propaganda Model: A Critical Approach to Analysing Mass Media Behaviour. *Sociology Compass* 4/4, 215-229, Blackwell Publishing Ltd.
- Nikel D., (2020). Controversial Coronavirus Lab Origin Claims Dismissed by Experts. *Forbes*, June 7, <https://forbes.com>
- Nwite, S. (2020). 5G, Coronavirus Conspiracy Theories: UK Government Sanctions Chris Oyakhilome. *TEKEDIA*, May 21, <https://www.tekedia.com>
- Ogala, E. (2020). History of 5G: What You Need To Know. *Premium Times*, April 12, <https://www.premiumtimesng.com>
- Oliver, E.J. & Wood T.J. (2014). Conspiracy Theories and the Paranoid Style(s) of Mass Opinion. *American Journal of Political Science*, Volume 58, Issue 4, <https://doi.org/10.1111/ajps.12084>
- Patel, T.R. & D'Souza M.H. (2020). Coronavirus is not a Bioweapon – But Bioterrorism is a Real Future Threat. *The Conversation*, May 18, <https://theconversation.com>
- Paudel, P. & Bhattarai, A. (2018). 5G Telecommunication Technology: History, Overview, Requirements and Use Case Scenario in Context of Nepal.pdf, Conference Paper, May 19, <https://www.researchgate.net>
- Pipes, D. (1997): *Conspiracy. How the Paranoid Style Flourishes and Where it Comes From*. New York: The Free Press
- Prooijen, J-W.V. & Douglas K.M. (2017). Conspiracy Theories as part of History: The Role of Societal Crisis Situations. *Memory Studies*, 10(3): 323-333.
- Qui, W. Shannon R., Mao, A. & Chu, C. (2017). The Pandemic and its Impacts. *Health, Culture and Society*, 9-10 <https://hcs.pitt.edu>
- Reichert, C. (2020). 5G Towers could be Attacked across the US this Weekend – Group Warns. *BBC*, May 22, <https://www.bbc.com>.
- Rogers, K.. (2020). Difference between a Scientific Hypothesis and a Scientific Theory. *Encyclopaedia Britannica Inc.*, June 15, <https://www.britannica.com>
- Schneider, B. R. (2014). Biological Weapons in History. *Britannica Encyclopedia*, Britannica, Jan 02, <https://www.britannica.com>
- Schodt, C. (2020). How did we get to 5G? The History of Mobile Networks. *Engadget*, March 16, <https://www.engadget.com>
- Shahsavari, S., Holur, P., Tangherlini, T.R. & Roychowdhury, V. (2020). Conspiracy in the Time of Corona: Automatic Detection of Covid-19 Conspiracy Theories in Social Media and the News. *Cornell University*, <https://covid.cornell.edu>, <https://arxiv.org>
- Shapiro, K.G., Holding, A., Samara, P., Rhonda, A. & Rosberger, Z., (2016). Validation of the Vaccine Conspiracy Beliefs Scale. *Papillomavirus Research*, Vol. 2, September 30, <https://www.researchgate.net>
- Sherr, I. (2020). Over 40% of Republicans think Bill Gates will use COVID-19 Vaccine to Implant Microchips – Survey Says. *CNET Flipboard*, May 22, <https://amp.flipboard.com>
- Shuttleworth, M. (2008). Definition of Research. *Explorable.com*. <https://explorable.com/definition-of-research>
- Shuttleworth, M. & Wilson L.T. (2009). What is the Scientific Method? *Explorable.com*, June 26, <https://explorable.com/what-is-the-scientific-method>
- Smith, B.L., Lasswell, H. D. & Casey, R.D. (2015). *Propaganda, Communication and Public Opinion: A Comprehensive Reference Guide*. Princeton University Press
- Smith, B.L. (2020). Propaganda – Definition – History. 'Behind the News', a Britannica Publishing Partner – *Encyclopaedia Britannica, Inc.* <https://www.britannica.com>
- Stein, R. A. (2017). The Golden Age of Anti-Vaccine Conspiracies. *GERMS*. Dec. 7(4): 168-170, <https://www.ncbi.nlm.nih.gov>,
- Steinfatt, T. M. (2009). Propaganda Theory. In: S.W. Littlejohn and K.A. Foss (Eds.), *Encyclopedia of Communication Theory*, Vol. 1, Thousand Oaks, CA; SAGE Publications, Inc. pp. 805-807,
- Stewart, K., Connelly, D. & Robinson, J. (2020). Everything You Should Know about the Coronavirus Outbreak. *Pharmaceutical Journal*. A Royal Pharmaceutical Society, June 12, <https://www.pharmaceutical-journal.com>,
- Sunstein, C.R. & Vermeule, A. (2009). Conspiracy Theories: Causes and Cures – Symposium on Conspiracy Theories. *Journal of Political Philosophy*, 17(2) : 202-227.
- Utebor, S. (2020). Critics Linking 5G to COVID-19 Talking in Ignorance – Adebayo. Interview with Gbenga Adebayo – Licensed Telecoms Operators' Chairman in Nigeria. *The Punch Newspaper*, April 12,
- Vavra, K.. (2020). Scientists Confirm AGAIN that 5G is 'Harmless'... despite Wild Conspiracy Theories Spreading Online. *The U.S. Sun*, July 11, <https://the-sun.com>
- Vocabulary.com Dictionary, (2020). Propaganda. Online in www.vocabulary.com, accessed 20/06/2020

Department of Political Science, Ebonyi State University, Abakaliki

- Wakabayashi, D. Alba, D. & Tracy, M. (2020). Bill Gates, at Odds with President Trump over the Coronavirus, becomes a Right-Wing Target. *Chicago Tribune*, April 17, <https://www.chicagotribune.com>
- Walsh, B. (2020). Covid-19: The History of Pandemics. *BBC FUTURE*, March 26, <https://www.bbc.com>
- Weisenfeld, G. (2012). *Imaging Disaster: Tokyo and the Visual Culture of Japan's Great Earthquake of 1923*. California: University of California Press
- Wilson, L. T. (2009). Definition of Science. *Explorable.com*, June 16, <https://explorable.com/definition-of-science>
- World Health Organization (WHO, 2018). Biological Weapons. September 6, <https://www.who.int>
- World Health Organization (WHO, 2020). WHO Timeline – COVID-19. April 27, <https://www.who.int>
- World Health Organization (WHO, 2020). Ebola Virus Disease. February 10, <https://www.who.int>
- Zonis, M. & Joseph, C.M. (1994). Conspiracy Thinking in the Middle East. *Political Psychology*, 15(3):443-459.