Exposure and Response to Media Discourses on Plastic Pollution: A Conceptual Discourse

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Abstract: Against the backdrop of the increasing health hazards associated with poor environmental health and littering of the environment with plastic which directly results to environmental pollution, this study conceptually analyzed the place of the media in the campaign against such health threat. The study was a conceptual discourse which drew its materials from the internet, journals, lecture notes, text books and monographs. Situated within the context of audience reception theory, the study concludes that media discourses on plastic pollution have arguably proved useful in terms of enhancing awareness and knowledge of plastic pollution among residents in South-East Nigeria, especially in relation to its causes, dangers and measures against its environmental hazard. However, it would appear that these discourses, irrespective of sufficient exposure and preferred reading of them by the state civil servants, have largely not been effective in terms of bringing about actual behaviour change. The study therefore recommends that environmental campaign (especially in relation to plastic pollution) in South-East geopolitical zone and indeed all parts of Nigeria should emphasize adoption of recommended actions and the benefits of so doing. This is given the finding that exposure to media messages on plastic pollution did not appear to have significantly influence the desired practices among the audience

I. INTRODUCTION

Plastic pollution and its short and long term effect on human habitat and health have been a leading issue in the current global concern regarding the sustainability of the environment (United Nations Environment Programme, 2018; Rochman, Hoh, Kurobe & Teh, 2013). In Nigeria, this concern is made more urgent by the fact that the nation, unlike the developed countries of the world, is yet to evolve an adequate and efficient mechanism for managing this class of non-biodegradable waste (Otu & Oloidi, 2018; United Nations Environment Programme, 2018; Lavers & Bond, 2017; Kadafa, Ayuba & Idris, 2017; Aderogba, 2014).

The world over, public campaigns have been going on to educate people and positively influence their attitudes and behaviour regarding plastic pollution and other environmental issues (United Nations Environment Programme, 2018; Lavers & Bond, 2017). Instructively, the mass media have been frequently deployed in aid of this effort (Mbalisi & Offor, 2012). Literature in Nigeria (see Miller, 2011; Aderogba, 2014; Moharam & Maher; 2014; Adekomaya & Ojo, 2016; Kadafa, Ayuba & Idris, 2017) shows that while media's role in public education on environmental issues generally has been variously studied, little appears to have been done specifically in regard to plastic waste and plastic pollution. Against this backdrop, this research focus on exposure and response to media Discourses on plastic pollution among civil servants in South-East Nigeria.

Prior to the industrial revolution, people's needs were more basic, thus the consumption patterns and waste patterns were predictable. Even though management of waste still posed a problem at this time, the magnitude was definitely low. With the industrial revolution came technological advancements, and with that the emergence of new sources of waste which generated waste in such magnitude and form that increasingly makes waste management quite complex. Added to this is geometrically increasing populations, growing urbanization and changing consumption culture, which have all intensified the modern challenge of waste management (Kadafa, Ayuba & Idris, 2017).

II. LITERATURE REVIEW AND CONCEPTUAL CLARIFICATIONS

2.1.1 Plastic Waste: A Definition

Waste is defined as any unusable material emanating from human activities whether of domestic, industrial or any other nature. Such materials are called waste being that they are of no economic demand and must be disposed of (Sridhar & Hammed, 2014). Chen and Patel (2012) more elaborately describe waste as leftovers, excesses, surpluses, unwanted and remains which are discarded, rejected, dumped and or thrown away. They argue that the unifying factor among all forms of waste is that they are "unwanted materials" at the moment in question, and they are a result of processes of production, processing or utilisation of some material resources. "In other words, wastes are the remnants of productions, processing, non-serviceability, disuse and others that have been discarded and abandoned for wants of immediate use" (Aderogba,2014, p.80). It is necessary to bear in mind the moment-specific character of wealth because it has been argued that no material entity is absolutely a waste; something is waste only for that particular moment (or in that particular context) when it is of no immediate use. In this regard, such materials described as waste are only momentarily so and will be useful thereafter in so far as the situation, technology and other resources to make them useful are available (Chen & Patel, 2012).

Waste comes in various forms and types. There can be degradable or non-degradable waste, solid, liquid or gaseous waste, while waste is classified as radioactive or non-radioactive. There can also be animal or plant wastes, domestic or industrial waste among others (Rochman, 2013; Klika, 2013). In whatever form they come, the existence and management of wastes have been of concern to individuals, communities, governments, organizations, and research community (Rochman, Hoh, Kurobe & Teh, 2013).

Among the common sources of waste are plastics. Kadafa, Ayuba and Idris (2017) define plastics as "polymers made up of long repetitive molecules" that "are primarily made of carbon" (p.972). The era of modern plastics came in 1907 when Leo Baekeland, a Belgian American, invented Bakelite, the first synthetic plastic i.e. plastic that is not derived from plants or animals but from fossil fuels (Laurence, 2014). This became a watershed in the evolution of the plastic industry and which set the pace for invention of other types of synthetic plastics such as polystyrene (invented in 1929), polyester (invented in 1930), polyvinylchloride (PVC) and polythene (invented in 1933), nylon (invented in 1935). As at today, there are over 100 types of plastic, however, only six are commonly found (Laurence, 2014).

2.1.2 Plastic Pollution

Plastic pollution occurs when there is an accumulation of plastic objects and particles in an environment to the extent of constituting hazards to humans, wildlife and wildlife habitat (Hammer, Kraak, Parsons, 2012). Plastic pollutants are in three categories according to their sizes i.e. micro-debris, meso-debris or macro-debris, based on size. Plastics are cheap and long-lasting, hence are produced in large quantities by humans. However, most plastics, as a result of their chemical structure, are slow to degrade. For these reasons, plastic pollution has become a prominent environmental problem of today (Lavers & Bond, 2017; Reddy, Reddy, Subbaiah & Subbaiah, 2014; Hammer, Kraak, Parsons, 2012).

Plastic pollution can occur on land, in waterways and oceans. It may come in various forms such as littering, marine debris (i.e. man-made waste that released into a lake, sea, ocean, or water way), plastic particle water pollution, plastic netting and friendly floaters. Estimates have it that about 1.1 to 8.8 million metric tons of plastic waste is released into oceans every year (Reddy, Reddy, Subbaiah & Subbaiah, 2014). Globally, about 380 million tons of plastic is produced every year as of 2018. Between 1950s and 2018, an estimated 6.3 billion tons of plastic has been produced the world over, out of which only about 9 per cent was recycled and 12% incinerated. This large quantity of plastic waste is released into the environment. It has been suggested by some researchers that the weight of plastics in the oceans will surpass that of fishes by 2050 (Lavers & Bond, 2017).

2.1.3 Media Discourse: A Conceptualization

Discourse is a term with a variety of meanings depending on the context and use. In the basic sense, it has been defined as "a long and serious treatment or discussion of a subject in speech or writing" (Hornby, p.416). The essence of discourse, as per the foregoing definition, is that it is a long and serious discussion or treatment; a continuous and intensive engagement of an issue.

However, in the field of linguistics, discourse is more precisely conceptualized as the process of creating meaning through language. It is "the use of language in speech and writing in order to produce meaning" (Hornby, 2010, p.416). This last definition is evidently also implied in the first definition that sees discourse as "a long and serious treatment or discussion of a subject" because such treatment or discussion must occur through the medium of language and the goal is to generate meaning. Thus, the unifying elements in the above two definitions by Hornby are language and meaning. This is further evident in the fact that "discourse analysis" as a method of research is interested in finding out how language is deployed to generate meaning, with language broadened to include everything that conveys a message be it words, writing, pictures, colours, symbols, sounds or any other form of sign (Machin & Mayr, 2012).

2.1.4 Media and the Environment

The human environment, according to Uzochukwu, Ekwugha and Emmanuel (2014), refers to the whole physical space within which humans exist. It is the sum total of all elements that make up human surroundings. These elements include air, climate, atmosphere, land, water bodies, forests, wildlife, and the ecosystem among others. The environment is a critical and indeed indispensable element in human existence as without the environment humans will be without habitat i.e. they will have no abode in nature (Olajide, 1998). Thus, the environment forms an essential and inseparable component of human existence. For this reason, paying attention and caring for the environment is, for humans, not a matter of mere discretionary responsibility but an unconditional natural mandate that ought to be fulfilled if the human species is to continue to exist (Olajide, 1998).

However, for humans to effectively execute this mandate towards the environment, they need to be informed and knowledgeable about the environment and its complex dynamics. They also need to be continuously reminded about this task and they also require to continuously share information and ideas for collective action. This is where communication comes in as a critical element in human's relationship with the environment (Adetusi & Obrota, 2008). There is a plethora of scholarly evidence that communication helps to promote positive environmental behaviour through making individuals informed and educated on issues of the environment. Improved knowledge of the environment and its principles has been shown to result in improved environmental attitude and behaviour (Uzochukwu *et al.,* 2014).

2.1.5 Theoretical Framework

The Audience Reception Theory is adopted for developing a theoretical framework for this study. This theory was first put forwards by Paul Stuart Hall in 1973 via his popular essay "Encoding and Decoding in the Television Discourse". In this essay, Hall describes how the audience play a role in the effect of a message communicated by virtue of how they decode i.e. receive such message (Hall, 1973).

Hall's theory was based on his modification of the Reception Theory of Hans-Robert Juass. The idea of audience reception as espoused by Juass was very simple and straightforward: a message would be created and sent, and an audience would accept and understand the media or text when a group of readers had a shared cultural background or interpretation with the text and media in similar ways as the author (Nightingale, 2011). Hall, however, observed that the major problem with Juass's theory is that it is very unlikely for an audience to have similar or shared reactions if they did not have anything in common with the author; in other words, their personal experience would vary person to person and be completely different, thus carrying their interpretation of the author's intended encoding. In other words, an encoded message does not basically possess any inherent meaning but that it is the audience who read meaning into it (Hall, 1973).

Hall (1973) tried to explain the relationship between the sender and the receiver, arguing that there are a number of significant steps involved in the sending and receiving of a message. He believes that the audience plays a large part in the success of message delivery. Hall focused on television discourse and compared it to a circuit. According to him , "Language and media do not reflect the real, but simply constructs something similar on our behalf." This constructed meaning is, however, fully realized only after the audience must have read it (Hall, 1973, p.2). So, unlike many previous theories that did not factor the audience in as an important part of the communication process, Hall's theory clearly attributes to the audience the power to change the meaning of a message in order to fit their social context. Consequently, Hall described communication as constitutive of two processes: encoding and decoding. The meaning encoded in a message by the author is not necessarily the meaning that will be decoded by the audience (Hall, 1973). "The audience receives the creative work done and perceives its content in either similar or different ways. The meaning of the message can change in the way they see it fit according to their social context" (Procter, 2004, p.11). To better understand this encoding-decoding dynamics, these two aspects of communication will be examined more details.

i. *Encoding:* Encoding is the making and sending of a message with the intention that another person will comprehend it. The encoded messages usually contain shared symbols (signs or language) as well as rules common with other people. So, in encoding a message, the encoder has to bear the receiver (decoder) in mind,

putting into consideration how he/she may perceive the message. There must be shared signs and language rules. At this stage of production of the message, the sender uses verbal cues, signs, and body language that he/she believes the person or group receiving the message will understand (Hall, 1973). The production must follow rules, and more specifically, language rules in order to convey its message (Procter, 2004). Without this, the message and system will suffer and become unsuccessful.

For instance, a person encoding a message in newspaper must comply with shared language rules including spelling, grammar and semantics. In addition, he/she must comply with specific technical rules special to newspaper including format and graphics. Without this, the communication may fail (Davis, 2004). In other words, the encoding ought to be realized within a shared space of signification.

However, encoding is not the end of communication because it is only one aspect of creating meaning. Though the person sending the message may believe that he/she is communicating unambiguously, the message may still be understood differently by the decoder given that meaning is not fixed, it is subject to varying readings (Davis, 2004). Another way to state this is that given that the encoding process is done by the sender alone, his/her individual ideologies and beliefs may colour the message as a result of which the audience will decode the message differently if they do not share those ideologies and beliefs (Davis, 2004). For this reason, Hall (1973) feels that the decoding end of the communication "circuit" deserves as much attention as the encoding end.

ii. *Decoding* – The decoding of a message refers to how effectively someone can receive and understand a message. It can be a result of verbal messages yet does not always have to be. It is possible to be pictures or media, emotions, or even body language. For example, if someone is talking louder and their face turns, it can be inferred that perhaps they are angry. Procter (2004) observes that for Hall, decoding is the most important part of a communication process, and that recognising the role of decoding is Hall's most significant contribution because many other previous theories did not pay attention to it all.

The decoding end of the communication "circuit" is the level of reading of the sent messages by the audience also called the decoder. The most basic principle here is that decoding can be said to be successful only if the message sent by the encoder is completely understood as intended. This is when the encoding and the decoding end does not suffer disconnect between them, thus allowing the communication "circuit" to be complete (Hall, 1973). This is what Hall means when he argues that messages sent with verbal/non-verbal cues don't bring the same result always as intended by the sender; it may indeed bring an altogether different meaning. In this case, a distortion has occurred as the audience comes out with a

different understanding, a different take on the message (Hall, 1973).

Once a message is sent, the recipient is presented with messages, signs and cues that have been pre-coded. However, there is never solely one received message as the audience must add meaning and rebuild or recreate the message (Hall, 1973). Regardless of whether or not the message is one on one or to a crowd, decoding is all about receiving, absorbing and understanding the information that is being passed on. For the process to be successful, the received (or decoded) message must be the exact message that was encoded and then result in the appropriate process or act. When a message is received and understood this way, "preferred reading" has occurred because what is understood is what the encoder wants understood (Hall, 1973). On the other hand, the audience may read an entirely different meaning into the message. In this case, Hall (1973) considers the circulation as never transparent as the meaning changes as a result of factors like age, mood, gender, experiences, backgrounds and economic standings, which make audiences decode the messages in different ways.

Ultimately, according to Hall (1973), audience decoding of a message will resolve into any of the following three readings: dominant reading, negotiated reading and oppositional reading. Each of these readings is a product of certain factors that operate at both the encoding and the decoding ends of the communication circuit.

- *Dominant Reading*

Dominant reading occurs when the audience takes the message as given; when meaning is accepted as encoded by the source. This reading is the simplest of them all; the encoder sends their message through, the decoder receives it, understands it and absorbs the ideology encoded in it in exactly the same way intended by the encoder (Davis, 2004; Procter, 2004).

In dominant reading, the producer or author's message is successfully conveyed, and the reader has the "dominant thinking," interacting, accepting, and understanding the intended message of the media. There are usually no misunderstandings, and quite often the receiver has the same ideologies and beliefs. In order for this to be successful, the message must be clear, and when this happens it is considered to be positive because the producer's message is successfully sent and received (Procter, 2004). A dominant reader is not critical in reading the message; they are not skeptical, unsuspecting, thus literally swallows the message and the intended meaning.

- *Negotiated Reading*

Negotiated reading occurs when the audience accepts the meaning encoded in a message but with some critical disposition. The decoder does not swallow the meaning, rather they negotiate with it. For instance, an audience may be

convinced that television content, such as pornography, is immoral but may still go on to view it. This way, the encoder's message is accepted by the decoder even though it goes against their personal convictions (Davis, 2004; Procter, 2004).

Another possible way a negotiated reading could occur is that a decoder reacts with a mixture of acceptance and rejection. Here, the audience understands the text and does not agree or disagree wholly, but instead it is possible that their opinions differ, at certain parts. Usually, they do this because they see what the sender is trying to get across, yet they hold their own interpretation and views on other parts or create their own rules and scenarios (Hall, 1973). In negotiated reading, the decoder is not totally accepting or totally rejecting the meaning built into a message by the encoder, rather they are sieving through the message, taking some while rejecting some.

- *Oppositional Reading*

Oppositional reading occurs when the audience rejects the meaning encoded in a message. The audience fails to accept the author's viewpoint as encoded in the message. They understand the text as intended by the encoder, yet completely rejects the messages conveyed. Instead, they change and add their own meaning to it, which is usually opposite of what the sender meant and opposite to the dominant thinking or view. Many times, it is because it is not relatable to them, the structure does not reflect their society, it is controversial, or they simply disagree so they do not understand it in the same sense (Hall, 1973).

In essence, an oppositional reader is a disagreeing reader. Their reading contradicts the values and beliefs which the encoder intended to be read by receivers of the message. Oppositional reading is thus the direct opposite of dominant reading (Procter, 2004).

However, it has been noted that dominant, negotiated and oppositional reading are not always mutually exclusive. A single decoder can experience a mixed reaction of being a dominant, oppositional, and negotiated reader in a particular instance of message consumption, all depending on particular circumstances of the communication process in question. Thus, message decoding is ultimately a quite complex moment with different variables intervening and which may result in mixed reading.

Nonetheless, the Reception Theory has been criticized for what is seen as its emphasis on the dominant ideology. Contemporary trends in media production and distribution tend towards increasing audience participation in content creation. For instance, reality television shows involve audience voting while new media technologies have enabled more audience participation than in traditional media. Consequently, the theory is seen as deficient for viewing the media-audience relationship in its holistic form (Nightingale, 1996; Murdock, 1989). "Audience participation has increased

dramatically in contemporary television, addressing the dominant reading and offering opportunities for varied outcomes. The rising popularity of reality TV shows is a good example of a larger audience participation" (Fiske, 1997, p.34).

Similarly, Hall's theory has been criticized for totally excluding the medium. Murdock (1989) criticizes the Audience Reception Theory for its "linearity" model as against a more integrative approach like the Lasswell's Model of "who says what, to whom, through what channel, and with what effect" which takes cognizance of the role of the medium in determining the effect of communication."Modern communication research needs further consideration of the medium" (Murdock, 1989, p.439)

III. CONCLUSION

In view of the above findings, the research concludes that media discourses on plastic pollution have arguably proved useful in terms of enhancing awareness and knowledge of plastic pollution among state civil servants in South-East Nigeria, especially in relation to its causes, dangers and measures to against it. However, it would appear that these discourses, irrespective of sufficient exposure and preferred reading of them by the state civil servants, have largely not been effective in terms of bringing about actual behaviour change.

The foregoing affirms the widely held view in media effect scholarship that exposure and positive reception of media messages would not necessarily trigger the intended behaviour (Potter, 2012; McQuail, 2010). In the instant case, the respondents positively received the messages they got from the media regarding plastic pollution, its causes, dangers and measures against it, but this seemed not to have actually resulted in positive behaviour. The theoretical implication of this is that the audience reception theory will not always be enough for predicting audience behaviour, even though it may effectively predict attitude.

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