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Retelling Ebola's "Outbreak Narrative" through Media Coverage of the 2014 West African Epidemic

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**Retelling Ebola's "Outbreak Narrative" through Media
Coverage of the 2014 West African Epidemic**

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Honors Thesis
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TABLE OF CONTENTS

INTRODUCTION	5
BACKGROUND	7
EBOLA VIRUS DISEASE	7
TRANSMISSION IN HUMAN POPULATIONS	8
LOCAL CONTEXT	9
CHRONOLOGY OF CURRENT OUTBREAK	10
LITERATURE REVIEW	12
CONSTRUCTION OF NARRATIVES	13
DISEASE DISCOURSE	16
DISEASE, GLOBALIZATION, AND NETWORKED SOCIETIES	21
EBOLA’S OUTBREAK NARRATIVE	24
SYNTHESIS	26
METHODOLOGY	28
CRITICAL DISCOURSE ANALYSIS	28
SAMPLING FRAME.....	29
SAMPLING AND ARTICLE SELECTION	31
CODING.....	33
RESULTS AND ANALYSIS	36
MOVEMENT OF EBOLA	36
CONTAINMENT AND CONTROL OF EBOLA	41
GEOGRAPHICAL IDENTITY	48
INTERCONNECTED WORLD.....	54
RETELLING EBOLA’S OUTBREAK NARRATIVE	62
CONCLUSION	67
APPENDIX 1: SAMPLE DATA CITATIONS	70
REFERENCES	76

ABSTRACT

The 2014 Ebola Virus Disease epidemic, unprecedented in magnitude, has been the focus of worldwide media attention. How does media coverage of the epidemic seize on anxieties of an interconnected world to reinforce longstanding perceptions of Africa as dangerous and chaotic? I compare this media coverage to the model Ebola “outbreak narrative,” using critical discourse analysis to contextualize representations of Africa within an increasingly interconnected world. I argue that media coverage reproduces a constructed Western understanding of Africa that will persist long after the epidemic is brought under control.

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Introduction

In the changing public health landscape of the 20th century, the imagined future of infectious diseases changed dramatically, as successes in addressing diseases such as smallpox suggested that advances in medicine and science would protect society from any future infections. Towards the end of the century, however, discourses of modernity and globalization increased anxieties about the next unknown disease. From where would it strike? What would it be? And most importantly, would the global North (those defining the problem) be able to defend itself against this impending catastrophe? This class of diseases came to be known as emerging infectious diseases, a new set of threats that had the potential to infiltrate American society. Intensified in the public's mind by books, film, and the writing of prolific science journalists, various depictions of diseases, their origins, and the routes by which they might reach the United States wove together into an "outbreak narrative," a socially constructed story of disease emergence tracing pathogens from their primordial origins to their emergence and eventual control (Wald, 2008).

Indeed, the time would come when diseases initiated their spread from their confines to the rest of the world via interconnected trade networks and increased global interactions. Public discourse around disease began to incorporate these emerging infectious diseases, drawing on previous discourses of the dangers and exoticness of the tropics. Viruses such as human immunodeficiency virus (HIV) in the 1980s and SARS coronavirus at the turn of the century proved that the formidable scientific and medical advances of the early 20th century were no longer sufficient to fight the deadly pathogens of the modern world. Although drastically different in magnitude, temporal scale, and scope, both HIV and SARS tested the limits of modern health systems and exemplified the perceived risk of the spread of

pathogens from unknown places into the global network. Media, politicians, public health officials, and medical professionals all contributed to the development of the HIV/AIDS and SARS outbreak narratives, constructing a story of their emergence and capturing the public's curiosity, fear, and terror.

It is unsurprising, then, that the 2014 emergence of Ebola Virus Disease in West Africa has led to the articulation of Ebola's "outbreak narrative." This narrative was first solidified in the early 1990s by works such as Richard Preston's best-selling novel *The Hot Zone* (1994) and Wolfgang Petersen's film *Outbreak* (1995). Graphic, compelling descriptions of the virus, its movement, and its catastrophic impacts contributed to the public understanding of Ebola, building the foundation of Ebola's original outbreak narrative. During the 2014 West African epidemic, media coverage has illuminated the fears and misconceptions presented by the original narrative. Missing from the literature on outbreak narratives (Ebola's outbreak narrative in particular) is an understanding of how outbreak narratives are reproduced over time. In the twenty years since the construction of Ebola's outbreak narrative, how might the narrative have retained or discarded its original form? Is the current narrative produced by media coverage distinctly different from the original narrative, or does today's narrative simply retell Ebola's original outbreak narrative?

Through the use of critical discourse analysis, this paper analyzes selected media coverage of the current outbreak to evaluate any changes to Ebola's outbreak narrative as articulated during the 2014 West African epidemic. I argue that although today's narrative retains many of the same characteristics as the original narrative, media coverage of the 2014 West African epidemic does present a modified and distinctly different version of Ebola's outbreak narrative. Despite the differences in content, however, both narratives produce

similar Western geographical imaginaries of West Africa, continuing to perpetuate Western ideas of West Africa as a chaotic, underdeveloped, homogenous “Africa.”

Background

Ebola Virus Disease

Ebola Virus Disease (EVD, commonly referred to as Ebola) is a viral hemorrhagic fever known for its high fatality rates and the potential for symptoms such as heavy bleeding and chronic diarrhea. The Ebolaviruses belong to the virus family Filoviridae, as does Marburgvirus, the virus responsible for Marburg Virus Disease, a similar hemorrhagic fever (CDC, 2014d). First documented in 1976, two simultaneous outbreaks of EVD occurred in northern Zaire and southern Sudan; later epidemiological investigation determined that the Zaire outbreak spread through the re-use of contaminated needles in a local hospital (Piot, 2012). Laboratory research established that the two outbreaks, although caused by the overarching Filovirus Ebolavirus, were caused by two different species of the Ebolavirus. These two species of Ebolavirus, Zaire ebolavirus and Sudan ebolavirus, were named after the locations of their first known outbreak. Other species of the Ebolavirus include Tai ebolavirus (formerly Ivory Coast ebolavirus), Bundibugyo ebolavirus, and Reston ebolavirus. Notably, Reston ebolavirus does not cause severe disease in humans, although can be fatal for primates.

The zoonotic Ebolaviruses primarily circulate in primate populations, with occasional and limited transmission to human populations (CDC, 2014b). In a typical zoonotic disease, a pathogen circulates in a reservoir animal species without being transmitted to another species. Once transmitted by vectors to a new species, e.g., humans, rapid transmission can cause lead

to an outbreak (Meade & Emch, 2010). In the case of Ebola, the suspected reservoir species are rodents and bats, although no conclusive evidence has been found that either type of animal is the reservoir species for Ebola; most evidence points towards fruit bats of the Pteropodidae family. It is hypothesized that Ebola spreads to humans through the handling and consumption of blood, secretions, organs and other bodily fluids of infected animals such as chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines. The virus may circulate in these animals as an asymptomatic infection; the virus might be activated by stress, co-infection, change in food sources, or pregnancy, which may explain the seemingly sporadic nature of outbreaks in human populations (Feldmann & Geisbert, 2011).

Transmission in Human Populations

Once Ebola has entered the human population, it spreads from person to person through close personal contact between the bodily fluids of an infected individual and a susceptible, uninfected individual. The incubation period, the length of time between infection and the presentation of symptoms, ranges from 2 to 21 days (CDC, 2014b). If a person does not develop a fever or other symptoms of Ebola after 21 days post exposure, they are unlikely to develop Ebola as a result of that exposure. One important aspect of this incubation period is that an Ebola infected individual does not become contagious until they start to show symptoms; that is, a person who has been infected with the Ebola virus but has yet to show symptoms cannot infect other individuals. Once a patient presents symptoms, the Ebola infected individual is contagious for as long as the virus circulates in their body. Men who have recovered from the disease have been shown to contain the virus in their semen for up to seven weeks after their recovery from the illness. After an EVD attributable death, the

body of the victim is more contagious than prior to their death, so handling the body must be done with extreme caution (World Health Organization, 2014).

Local Context

Ebola's spread through West Africa has no doubt been helped by the resource-poor health systems of the three main countries impacted, Guinea, Liberia, and Sierra Leone. Other proposed reasons for the unprecedented diffusion of the epidemic include increased human-environment interactions (West & McDonnell, 2014) and the generally underdeveloped nature of West African economies and governments (Skwarecki, 2014).¹ Ebola is a disease that most profoundly affects those already most marginalized and disadvantaged, including the poor, the malnourished, those with little agency and access to sufficient healthcare, and those who can afford the disease the least. Compromised economic development and the legacy of decades of colonial rule, foreign manipulation and

¹ The idea of development and the distinction between developed and underdeveloped countries stems from the Cold War era of distinguishing between First World countries (those allied with the United States) and the communist Second World countries, a distinction that left those unaligned to be known as Third World Countries. After the cessation of the Cold War, First World came to be synonymous with Developed countries, those with highly developed economies and present or historical industrial activity. The privileging of economic engagement in a capitalist world economy by labeling so-called "developed" and "developing" countries doesn't necessarily reflect accurate or just depictions of "developing" countries, particularly with regards to their legacies of foreign control and resource depletion. While other terms such as Global North/Global South, more developed/less developed, and industrialized/non-industrialized nations are used, no one representative and justifiable set of terms has emerged. For this purposes of this paper, countries that experience poor health outcomes, lower engagement with the international capitalist economy, and little to no influence or international attention will be referred to as developing countries, with an understanding that economic development as construed by the international capitalist economy does not represent a nation's only source of development, and with an understanding of the historical political and often colonial policies that systematically disadvantage those countries even today.

intervention have weakened the governments, people and communities of West Africa, stripping them of the means by which to prevent, treat and control the spread of infectious diseases such as Ebola.

Chronology of Current Outbreak

Zaire Ebolavirus entered the human population in Guéckédou, Guinea in December 2013. The initial cases of Ebola Virus Disease presented without hemorrhaging, deviating from the Western public's imagination of Ebola, instead presenting predominantly with fever, vomiting and severe diarrhea. It is thought that the virus spread through the human population for multiple months without detection. Among early confirmed cases, the case fatality rate was 86%. In the prefectures of Guéckédou, Macenta, and Kissidougou, 111 clinically suspected cases from December 2013 through the thirteenth week of 2014 resulted in 79 deaths, a case fatality rate of 71% (Baize et al., 2014).

Later analysis attempted to trace the chain of transmission back to the source of the epidemic through the testing of samples. This analysis showed that the first recorded case occurred in a two year old child who died shortly after infection; shortly after, his sister, mother, and grandmother died, then a nurse and village midwife. The boy's family lived in Meliandou Village, a town northeast of Guéckédou town, on the other side of which lies the borders of Sierra Leone and Guinea. Approximately two months after the first cases in Meliandou, the virus spread to other villages, including Dandou Pombo Village (6 deaths, Feb 11 to March 31, 2014), Gbandou Village (3 deaths, March 9 to March 12, 2014), and Dawa Village (8 deaths, Jan 26 to March 27, 2014). The epidemiological evidence becomes easier to confirm at this point in the epidemic; the doctor who treated the health care worker

from Guéckédou Hospital later died, as did members of his family and other people at the hospital (Baize et al., 2014).

On March 10, 2014, hospital and public health officials reported high numbers of cases involving fever, severe diarrhea, and vomiting to the Ministry of Health of Guinea reporting that the high-fatality disease that appeared to be clustered. Médecins sans Frontières, who would later play a significant role in the efforts to fight the outbreak, was alerted two days later. On March 14 and March 18, teams from the Ministry of Health and MSF arrived in the region for field work and further investigation. The teams collected blood samples from 20 patients who presented with symptoms consistent with the disease; the samples were then sent to biosafety level four laboratories in Lyon, France, and Hamburg, Germany, where the Ebola diagnosis was confirmed (Baize et al., 2014).

Following the March notification, the epidemic grew slowly until the beginning of August 2014. Media coverage in the United States followed a similar trajectory, with a slight pickup in the weeks leading up to the end of July 2014. The number of cases, media coverage and international attention intensified dramatically in the last days of July 2014. On July 21, 2014, the number of reported cases numbered over 1,000. Around this time, the epidemic began its exponential growth, reaching 2,000 cases by August 15, 2014, over 3,000 on August 28, 2014, over 7,000 by the end of September, and peaking in late October, when over 3,500 cases were reported in a week's time. In early 2015, the epidemic began to slow, and although the incidence of new cases has dropped dramatically as of April, it's still unclear when the epidemic will end (CDC, 2015a).

Literature Review

This literature review bridges the fields of critical political ecology and critical public health, building a particular lens through which the current Ebola outbreak narrative can be analyzed. I draw on different literatures to build a theoretical framework, a web of ideas that support interpretations of the discourse constructed during the current Ebola outbreak. First, I explore Foucauldian ideas of the construction of narratives and the production and circulation of knowledge, as well as exploring the idea of geographical imaginaries, those views of place constructed by outsiders. The next section explores constructed representations of disease in discourse, followed by disease discourse as it relates to globalization and networked societies. I combine Wald (2008) and Zerner (2003) to situate Ebola's outbreak narrative within the framework established by this literature review. A synthesis of these themes frames the following critical discourse analysis.

The texts reviewed for this literature review come primarily from the field of geography, although notable exceptions include *Contagious*, which comes from the discipline of English, and "The Viral Forest in Motion," from Environmental Studies (Wald, 2008; Zerner, 2003). Although this literature review builds on pieces published primarily within the last 15 years, it builds on the successes of the development of the field of political ecology in the 1980s and 1990s, as well as more recent developments. Notable scholars include Richard Peet, Michael Watts, Paul Robbins, and James Fairhead and Melissa Leach (See Peet & Watts, 2004; Robbins, 2012; Fairhead & Leach, 1996).

Construction of Narratives

Stories – of disease, of crisis, of success – are the constructed representation of events, often sequential in nature, that serve to highlight certain ideas while diminishing the role of others considered less important to the person constructing the story. These stories can become narratives, ones that gain legitimacy and truth status as the result of repeated tellings. Narratives are the results of the constructed selection, organization and presentation of events for the meaningful consumption by particular audiences (Riessman, 1993). The truth ascribed to those narratives, then, becomes a given understanding of how, when and why events or processes occur. The power of these perceived truths makes it difficult to challenge narratives, particularly narratives that are easy to digest and understand. Narratives serve to tell the story of events, processes, and regions; they help to simply and categorize complex, dynamic ideas and process those complexities into manageable representations of reality. These narratives can also be interpreted as discourses, a form of knowledge produced and made meaningful within a certain societal context. As knowledge is constructed and rearticulated, it acquires legitimacy and power.

The uncritical reproduction of perceived truths gives validity and strength to Ebola's outbreak narrative. Foucault argues that narratives are the outcome of the context in which they are created, performed and rearticulated. Overlooking that context ignores the social circumstances that influence the production of knowledge and discourse, and how those circumstances might change representations of information. This process refers to more than just the influence of a simple bias; instead, Foucault examines the underlying structures and mechanisms that permit certain knowledge to be classified and accepted as “true” while simultaneously disarming other “truths” (Waitt, 2010). The Ebola outbreak narrative

privileges some information, while disregarding other information. Thus, the circumstances regarding the production and circulation of knowledge, including the development of particular narratives and discourses, must be examined in order to situate and challenge Ebola's outbreak narrative.

Just narratives acquire power in their acceptance, challenges to those narratives can require and produce power. In *Misreading the African landscape: Society and ecology in a forest-savanna mosaic* (1996), James Fairhead and Melissa Leach questioned the implicit assumptions that guided understandings of a portion of the Guinean landscape and the subsequent research outcomes and policy decisions based on those understandings. Using the tools of aerial photography and the framework of political ecology, Fairhead and Leach provided evidence that rather than increasing deforestation, Guinean people acted as stewards of the environment, creating forest islands and increasing vegetative land cover. This landmark piece exemplified how narratives of environmental degradation were not only constructed, but could influence the continued articulation of incorrect and false information through the seemingly objective lens of science. Similarly, Moseley and Laris examine how they, along with other Peace Corps volunteers, enforced West African environmental narratives when working in Mali in the 1980s, despite acknowledgement that local conditions varied from the narrative they had internalized prior to arriving in Mali (Moseley & Laris, 2008). Although they had no apparent incentive to perpetuate that "received wisdom," as coined by Leach and Mearns (1999), they did so anyway, highlighting the strength of constructed narratives in persisting over time, even when juxtaposed against conditions that directly conflict with the narratives.

Just as narratives are constructed representations of temporal events, ideas of place are also constructed, creating a selective representation of a particular place or region. Carter defines this “geographical imaginary” as the set of meanings and values ascribed to a place, by foreigners, that “enables a distanced and abstracted understanding of nature-society dynamics” central to that locale (Carter, 2012). The geographical imaginary draws on real and imagined experiences, events, and knowledge of place to construct a particular narrative, one that suffices to explain all that that place contains, symbolically becoming an easy, convenient interpretation of place that justifies intervention and further narrative construction. He also argues that the framing of place within “geographical identities,” constructed and seemingly natural spatial units, impacts understanding of and approaches to disease control. Carter draws on the “regional discursive formations” of Richard Peet and Michael Watts (as cited in Carter, 2012), “master” narratives used to contextualize and locate place that appear all-encompassing, but instead simplify and reduce a place to a series of problems identified by outsiders.

The geographical imaginary, then, problematizes all representations of place through discourse, as it contributes a somewhat false understanding of place to those narratives. It infuses the production and circulation of knowledge, lending a false legitimacy to the constructed understanding of any particular place as construed by outsiders. Similar cartographic constructions include “epidemic cartographies” (Farmer, 2001) and “racist cartographies” (Zerner, 2003). Together, the construction of narratives and “geographical imaginaries” serves as an excellent base off of which disease discourse can thrive, as disease discourse draws on previously constructed understandings of place.

Disease Discourse

Disease discourse relies on the construction of narratives of health, disease and communities in the production, reception and circulation of disease related knowledge. Briggs argues that “communicability,” the productive capacity of communication to influence subjectivities, relies on embedded power and social dynamics to construct particular understandings of disease (Briggs, 2005). These narratives often delineate between “us” and “them,” the at-risk and the infectious, a relationship identified by Edward Said as the “Self” and the “Other” (Said, 1978). Just as all narratives are produced and given meaning within specific contexts, powerful actors assign meaning and power to disease narratives and communication. This portion of this literature review aims to connect the construction of narratives to disease-specific discourse, situating Ebola’s outbreak narrative within already established theories of disease discourse.

Brian King argues for the use of political ecology in examining the production of disease discourse (King, 2009). On a material basis (as opposed to a critical approach), King states that political and economic systems structure health, influencing both the spread of disease and the context in which public health systems attempt to respond. Political ecology, he argues, has been underutilized as a tool to examine the interactions between social, political, and environmental systems, and how these systems structure responses to disease. Because political ecology offers an exploration of how environments are produced by political and economic systems, this approach can be transferred to the study of health and disease, as an extension of the interactions between people, systems and the natural environment. Additionally, just as political ecology has been used to reveal the construction of social and environmental narratives, so can political ecology be used to “decipher” the

construction of health and disease narratives by dominant institutions. Part of King's argument builds on the idea of place as being "constructed and reconstructed out of a particular set of social relations, experiences and understandings" (King, 2009, p. 5); King's ideas of the construction of place tie in well with Carter's "geographical imaginary."

King also argues that the framework provided by political ecology allows research to explore how political and economic conditions structure social networks that produce, and reproduce, disease; his identification of the multiple determinants of disease connect to the field of public health, which would argue that the spread of disease should be analyzed on a community level as well as the individual level (Birn, Pillay, Holtz, & Basch, 2009). This material political ecology approach could explore the circumstances that allow for disease transmission, structured vulnerability to disease, and the impacts of disease and disease vulnerability on social and environmental systems; for example, Carol Hanchette's research on lead poisoning in eastern North Carolina uses political ecology to explain how historical, social, political and economic processes contribute to poor health for individuals and communities (Hanchette, 2008).

In addition to a material political ecology approach, King calls for the use of critical political ecology to "interrogate health discourses produced by actors and institutions." Just as "disease vectors are often local phenomena ... embedded in social networks of power that influence transmission and treatment patterns" (King, 2009, p. 12), disease narratives construct the phenomena of disease within the context of social and political systems, and influence responses to disease. The dominant understanding of disease almost exclusively privileges the Western biomedical approach; thus, King's calls for further research to explore "subaltern health narratives" that challenge dominant disease narratives produced by

powerful actors and institutions could allow for comparison to Western knowledge of disease, and how both sets of narratives are constructed by certain powerful actors (King, 2009).

Just as narratives of disease reflect the contexts in which they were created, the communication of those narratives occurs in context-specific ways. Briggs conceptualizes “communicability” as the productive capacity of communication (and its powerful background ideologies) to influence subjectivities, similar to racialization and medicalization (Briggs, 2005). Like racialization and medicalization, communicability asserts influence over the production and circulation of information within society, and is dependent on the structure of the society, including all embedded power disparities, within which the information exists. The notion of communication, the dissemination of knowledge, is as problematic as “race” or “health,” in that all knowledge is constructed within a framework, but is still assumed to be objective. Drawing on Martin-Barbero (1987), he argues that ideas of self and society are produced by media for consumption by society, thus shaping the societal understanding of self. Narratives of epidemics construct seemingly natural racial inequalities, distinctly identifying the “Self” and the “Other” (Chiang and Duann, 2007).

Communication is constructed by the institutions that produce it, and thus is subject to the underlying ideologies of the institutions; no information can be free from subjectivity, and all communication is subject to a bias. Briggs calls for the analysis of the distribution of “the production and reception of authoritative knowledge” (Briggs, 2005, p. 274) and how the ideologies behind communication construct authoritative producers of knowledge. Communicability produces and reproduces knowledge, and thus the implicit biases of the

producers are reproduced through the creation and establishment of “preestablished social categories” (Briggs, 2005, p. 275).

Disease outbreak calls for the stabilization of the public’s fear through the dissemination of knowledge; during these times, the communicators of knowledge (likely public health officials) must respond to epidemic fear produced by media reports. Communicability confers legitimacy to racialized narratives during disease outbreaks, and the production and reproduction of knowledge throughout these epidemics can reinforce racial inequities through “epidemic cartographies.” Briggs also argues that right to communicability, the capacity to produce subjective knowledge as objective, is restricted by race and class. Briggs calls for the transformation of the communication’s underlying ideologies and the resulting circulation of knowledge and the positionality of actors within knowledge production; otherwise discourse will continue to suppress marginalized and oppressed people (Briggs, 2005).

Inherent in the production of any discourse are power dynamics that privilege the needs and desires of certain actors at the expense of others, often pitting different actors against one another. Chiang and Duann (2007) study representations of disease to explore how conceptual metaphors for SARS, most specifically the “disease is war” metaphor, were represented in various major newspapers during the 2003 East Asian SARS outbreak. Drawing on Chiang and Duann’s literature review, which shows that ideology “shapes representations of social issues,” it could be said that ideology shapes representations of disease; thus, any ideology, whether political, racial, or social, can influence not only how information is produced, but how it is given meaning and accepted to be true (Chiang & Duann, 2007, p. 580). In Chiang and Duann’s work, the authors found representations of

SARS betray the underlying political ideologies of the newspapers, showing how differences in representations of the origin of disease can be attributed to the varying ideologies of the different newspapers. In this case, mainland China is either blamed or spared the blame as the origins of SARS, depending on the attitudes of the newspapers.

Chiang and Duann draw on Susan Sontag's work, citing her statement that "disease is regularly described as invading the society, and efforts to reduce mortality from a given disease are called a fight, a struggle, a war" (Sontag, 1989). Media representations of disease often come from a political viewpoint, differentiating between the people who cause disease and the people at risk of disease. Just as Edward Said conceptualized the "Self" and "Other" (1978), they propose that the use of the "disease is war" metaphor leads to the construction of the "Self" and "Other," "Self" being a unified group working against the "Other." The need for solidarity during conflict, in this case the "war" against SARS, necessitates the production of differences between "Self," the subjects fighting against disease, and "Others," those from whom disease can be contracted or to whom disease can be attributed. While "Self" is constructed as superior, all those in opposition to "Self," the "Others," are portrayed as inferior. This tension between "self" and "other," as identified by Chiang and Duann's analysis of media coverage of the 2003 SARS outbreak, can be found in disease discourse, as well as narratives and discourses of Africa, showing how this tension is not novel when speaking of people different from those creating the narrative.

The differences between groups of people are often magnified by media coverage in times of distress. Briggs (2005) writes that media coverage shapes ideas of health, health care and disease, connecting those representations of health to those of racial difference. Biomedical knowledge production is limited to the realm of medical professionals and

through the “doctor’s orders” model, is transmitted hierarchically to its recipients. Other models of knowledge transmission include the “active patient-consumer” model, in which recipients of knowledge actively seek out and critically evaluate knowledge, and a third model in which discourse production disrupts the expert/layperson relationship and instead circulates between interested parties (e.g., interest groups, the state) (Briggs, 2005). Just as microbes and disease spread, Briggs conceptualizes these “biocommunicable models” as the production, circulation and reception of biomedical knowledge that travels, while considering the subjects and objects involved in that movement. Additionally, biocommunicable models structure the production and circulation of knowledge by health professionals and media coverage. The intricate connection between biocommunicable models and media coverage eliminates any possibility of knowledge production by lay-persons, despite the fact that health professionals, the media, and lay people are all involved with the cycle of knowledge transmission.

Disease, Globalization and Networked Societies

An increasingly interconnected world has made the transmission of disease from a remote corner of the world to giant metropolises not only a possibility, but a lived reality. Disease no longer is restricted to its origin, but through globalization and trade networks, has the capacity to infect places it never previously had access to (Ali & Keil, 2006). Thus, calls to stop the transmissions of disease could come from not only an altruistic place, but a defensive mindset as well. The increased visibility of and awareness to disease can be seen as a logical response to threat, or the overblown reaction to diseases that have existed in other others long before the global North took notice. Through this section of the literature review,

I set up the section of my theoretical framework that shows how and in what ways disease discourse engages with a modernizing, globalizing world.

Diseases, as pathogens and biomedical assaults to the body, have the capacity to infect and cause poor health regardless of where that infection occurs, although diseases that are new to an area may be constructed as new, critical threats. As Farmer argues, the perceived emergence of infectious threats, so-called emerging infectious diseases (EIDs), has helped raise both awareness and funding to address these problems (2001). However, he also questions the label “emerging,” arguing that many so-called emerging infectious diseases existed long-before being labeled as such, and that the concept entails “complex symbolic burdens” (Farmer, 2001, p. 39). He calls for the rethinking of methodologies, study design, validity, and the “limits of human knowledge” (ibid), in essence those epistemologies that give knowledge their purported objective qualities, while acknowledging that some progress has been made on identifying truly emergent diseases. The visibility of disease, he argues, is embedded in the social context within which it appears; he identifies the “emergence” of Ebola as the emergence of the disease within Western media, not simply the appearance of the disease in 1970s central Africa, and calls attention to disease awareness as the result of the interests of power and wealth, a process that calls to mind Foucault’s understandings of knowledge production and circulation.

Through the discussion of HIV/AIDS, Farmer identifies social inequalities as the most powerful co-factor in disease emergence, arguing that transient borders call attention to “transnational inequality” (Farmer, 2001, p. 55). Finally, he identifies that emerging infectious diseases are those that pose the greatest risk to those in power; when those in power are those in the global North, then EIDs are constructed as a risk that can spread from

the “other” to “self,” a process made all the more possibly by globalization. The “rhetoric of immediacy” that fuels the spread of the perceived risk of disease allows professionals to raise awareness and funds, but ignores those for whom EIDS have been present for much longer (Farmer, 2001, p. 57). He argues for the dynamic, systemic and critical analysis of emergent diseases, a process that could take the form of a critical epistemology (Farmer, 2001). A critical epistemology of emerging infectious diseases would entail the critical viewing of health-related terms and units of analysis, including arbitrary borders largely ignored by microbes, vectors and pathogens, that seeks to understand disease not just as a biomedical threat, but as the result of structures that facilitate the spread of disease (see King, 2009).

As disease discourse converges with, or perhaps just draws from, the perceived risks inherent to globalization and networked societies, a narrative of disease emergence begins to surface. The “outbreak narrative,” as conceptualized by Wald, is the constructed representation of diseases from their initial emergence, to their swift, dramatic crescendo, and finally to critical point when public health authorities are able to defeat the disease and declare success. This “evolving story of disease emergence” relies on the circulation of ideas and attitudes, using a particular vocabulary and geography of disease emergence to map the spread of disease from its primitive origins, across borders, to international cities. Anxieties about globalization and the interconnectedness of the world are highlighted in this narrative, as disease and related disease phenomena spread from socially constructed ‘imagined communities’ to the whole world, betraying the false separation between “Self” and “Other.” These anxieties appear in pieces such as Robert Kaplan’s “The Coming Anarchy” (1994), in which Kaplan writes that “scarcity, crime, overpopulation, tribalism, and disease [of West Africa in particular] are rapidly destroying the social fabric of our planet.” Kaplan draws on

these anxieties to demonstrate how in modern times, what happens in one area of the world necessarily has the potential to affect the rest of the world.

In essence, “the outbreak narrative is a powerful story of ecological danger and epidemiological belonging, and as it entangles analyses of disease emergence and changing social and political formations, it affects the experience of both,” adapting to and changing the contexts in which disease occurs and is discussed (Wald, 2008, p. 9). Embedded in the outbreak narrative is the concept of space, a process by which disease has the power to escape its local confines and emerge into the world. For example, although infections such as HIV/AIDS and hemorrhagic fevers are endemic to impoverished areas (primarily in the global south), Wald argues that they gain the descriptor “emergent” when they threaten to escape their geographic origin and infiltrate the global north. Both Farmer and Wald’s work connect to ideas of disease discourse, arguing that diseases become emergent when the global North says they become emergent, highlighting how perceived truths are just constructions of truth.

Ebola’s Outbreak Narrative

A synthesis of the first three sections of this literature review shows how narratives are constructed representations of reality, and that disease discourse, particularly as it relates to globalization and networked societies, is no exception, as the powerful producers of discourse choose when and how to label and discuss disease. It is through this synthesis that Ebola’s outbreak narrative begins to emerge. Although Western health officials first documented Ebola in Zaire (now Democratic Republic of the Congo) in 1976, Ebola didn’t emerge in the Western public eye in any serious way until the mid 1990s. This perceived

disease emergence, like so many before it, relied on pre-existing disease discourse and concerns of globalization to crescendo and gain significance. Thus, this section of the literature review explores this emergence through the work of Charles Zerner (2003).

Ebola's outbreak narrative begins in the tropical rain forests of a single, homogenous Africa, and then documents the disease as it quickly spirals out of control and escapes its confines. Zerner argues that the construction of these tropical rain forests as "viral forests in motion" results from the foreign construction of the rainforest as a place of danger, threats and disease. Although historically perceived as stagnant, globalization and the increasing interconnectedness of the world have turned the forests into the sites of emergent disease and destruction. Environmental narratives construct the threat of an exotic 'other' escaping their natural environment and crossing borders through globalized connections to invade the local. According to Zerner, the forests of Africa have always been perceived as containing the potential to spillover into other distinctly non-African parts of the world and through the redevelopment of representations of African rainforests in the 1990s, those forests transformed from places outsiders travelled into to places connected to the globalized world, becoming "viral forest[s] in motion."

Zerner examines Ebola as an icon, one at the center of narratives of globalization, global health, national security and "networked societies." Zerner's close reading of Richard Preston's *The Hot Zone* focuses on Preston's attempts to stimulate fear through depictions of Ebola escaping from the forests of Africa through an increasingly globalizing world. According to Zerner, the Ebola escape narrative depicted by Preston relies on the construction of Ebola's geographical origin as a "place suggestive of terror," one that threatens "formerly safe spaces." These "safe spaces" are constructed as rational and orderly,

destined to become chaotic and like Africa, sites of “inevitable environmental degradation, disease and social chaos” (Zerner, 2003, p. 257). The “rapidly ascending spiral” (ibid) of fear and terror created by Preston contributes to Ebola’s construction as a phenomena destined to infiltrate increasingly interconnected local and international networks. Through these exaggerated representations, Preston articulates Ebola’s “outbreak narrative.”

Zerner’s work subjects the 1995 film *Outbreak* to a thorough analysis, similar to the analysis of *The Hot Zone*, deciphering the visual and dramatic metaphors for constructed ideas of Africa and the “viral forest in motion” embedded in the film. Similarly to *The Hot Zone*, *Outbreak* construes images of a “viral” Africa with the capacity to infiltrate networks and threaten outsiders and foreign places. Zerner also analyzes a full-page advertisement in *The New York Times* published in November 1999, which appropriates images of Ebola and represents transmission of Ebola inaccurately to demonstrate the danger lurking within African forests, deadly viruses with the capacity to move into foreign lands. Zerner’s analysis, using *The Hot Zone*, *Outbreak*, and the full-page advertisement as examples, articulates the use of the “viral forest in motion” to represent the dangers of Africa spreading outward, breaking their original geographic confines to infiltrate and infect unsuspecting citizens. This “master metaphor” constructs Ebola as a crafty, cunning representation of Africa, used to provoke anxieties of globalization and increasingly interconnected spaces (Zerner, 2003, p. 284).

Synthesis

By situating Ebola’s outbreak narrative within the greater context of critical political ecology and critical public health, I argue that the stories and ideas produced by the original

narrative fit into a preexisting discourse on disease and globalization. Rather than treating Ebola as a virus, the narrative produces Ebola as a phenomenon, a foreign invader bringing lethal pathogens across global networks to an unsuspecting, distinctly non-African public. Zerner's analysis of Ebola's outbreak narrative demonstrates the ease with which ideas of danger and disease are ascribed to Africa, Africans, and the "viral forests" from within which disease emerge. In its original incarnation, Ebola's outbreak narrative performs exactly as Wald identifies it, as an "evolving story of disease emergence," conforming to a prescribed understanding of how disease escapes its original confines and threatens the West.

Missing from the framework presented in this paper, however, is an understanding of how outbreak narratives are replayed and rearticulated over time. Zerner convincingly writes of Ebola's original outbreak narrative, but what of today's narrative? The reemergence of Ebola in the Western public's mind via media coverage of the 2014 West African epidemic has illuminated the original fears and misconceptions presented by the narrative constructed in the 1990s. As the 2014 outbreak has grown in magnitude and temporal scale, media coverage has crescendoed with a similar ferocity, highlighting the perceived threat of Ebola and all of its related chaos. Despite the similarities between the two outbreak narratives, it remains unclear whether the current narrative is distinctly different from the original narrative, or if today's narrative simply retells Ebola's original outbreak narrative, assigning the same problems, misconceptions and neuroses to the same actors, threats and populations.

Methodology

Critical Discourse Analysis

Critical discourse analysis is used to understand the ways in which certain sets of information, or discourses, are produced and circulated in specific contexts. Gordon Waitt ties the ideas of critical discourse analysis to Foucault's ideas of the construction of truth and fact. As Waitt writes, "Foucault's interest in discourse was to explain how those statements accepted as 'true' are always historically variable, being the outcome of uneven social relationships, technology, and power" (Waitt, 2010, p. 217). Through understanding the context in which information is produced as "true," it becomes possible to deconstruct that information. Critical discourse analysis seeks to understand not only the content of a particular discourse, but the ways in which structures enable the discourse's reproduction as legitimate and acceptable (van Dijk, 1993).

Media coverage of the Ebola epidemic is an ideal situation to which critical discourse analysis can be applied, as inherent in any media coverage or commentary is a particular set of power relations, common and accepted understandings of particular geographic places, and preconceived ideas of the ways in which information can and should be presented. In analysis of media coverage of HIV/AIDS, Sophie Wertheimer employs critical discourse analysis to examine how media coverage draws on "the long tradition of western imaginings about illness and health in relation to black populations," situating media produced disease discourse within a larger context (Wertheimer, 2007, p. 31). Wertheimer draws on van Dijk, who writes that "media discourse is the main source of people's knowledge, attitudes and ideologies, both of other elites and of ordinary citizens" (as cited in Wertheimer, 2007, p. 31). Thus, subjecting media coverage of the Ebola outbreak to critical discourse analysis allows

us to identify the dominant ideas and understandings, particularly as they relate to disease and Africa, which are both informed by, presented, and repeatedly reproduced through media coverage. Thus, critical discourse analysis is an appropriate tool for this research question and this situation.

Determining the Sampling Frame

During the 2014 Ebola outbreak, information about the epidemic was often presented through formal media coverage, first-hand accounts in editorials, commentaries, and blogs, and through social media outlets such as Twitter and Instagram. The subjectivity and objectivity of the information varied greatly from piece to piece, with some pieces presenting “facts”² from a biomedical background, with other presenting unsubstantiated opinions.

Government agencies and traditional media outlets utilized social media extensively during the outbreak, sharing information about the epidemic and international aid. Remarkably, the last time the United States Centers for Disease Control and Prevention (CDC) issued a Level 3 Travel Warning due to an infectious disease was in 2003³, during the SARS (severe acute respiratory syndrome) outbreak in southern China; Facebook, arguably the most prominent form of social media as it exists today, was not launched until February 2004, six months after the conclusion of the SARS outbreak (Willingham, 2014; Carlson, 2010).

² The quotation marks around “facts” are a nod to the idea of the construction of reality and truth; although presented as “facts,” objective, scientific representations of the world, this paper recognizes that those facts are, in fact, constructed in a particular place and time by people in specific contexts, as discussed in the literature review.

³ The CDC also issued a level 3 travel warning after the 2010 Haiti Earthquake, because “the destination’s infrastructure (sanitation, transportation, etc.) [could not] support travelers at [that] time” (CDC, 2015c).

Although the use of social media during the 2014 outbreak, and its potential resulting contributions to the outbreak narrative, are quite compelling, this research instead focuses on formal media coverage of the outbreak. This decision was made for two reasons: firstly, research on media coverage has traditionally focused on more formal examples of media, although this is sure to change in the future; and secondly, the logistics of selecting and aggregating social media posts in a formal, rigorous and replicable manner were prohibitive. Given these issues, the research presented in this paper uses only formal media coverage in its formal analysis, understanding that the analysis may only cover a portion of the outbreak narrative as presented during the current outbreak.

The following methodology draws from several similar critical discourse analyses. Thomas McFarlane and Iain Hay sampled an Australian national daily newspaper, *The Australian*, in analysis of media coverage of the December 1999 protests against the World Trade Organization in Seattle, WA (McFarlane & Hay, 2003). Charles Briggs's study of news coverage of health and bioexceptionalism in Cuba samples several newspapers for data, and describes the development of codes used for coding (Briggs, 2011). Nicola Jones examines media coverage of the HIV/AIDS pandemic in South Africa in 2004 and 2011, with an eye towards the ethics and responsibilities of journalism (Jones, 2013). Joye uses critical discourse analysis to examine Belgian television coverage of the 2003 SARS outbreak (Joye, 2010), and finally Peter Teo uses critical discourse analysis to analyze racism in Australian newspapers (Teo, 2000).

Data for this study come from four media outlets. *The Wall Street Journal*, an English-language international daily newspaper headquartered in New York, NY, focuses on business and economic news; it has the highest daily circulation of any newspaper in the

United States (The Associated Press, 2013). Notably, *The Wall Street Journal* is often characterized as a politically conservative leaning newspaper. *The New York Times* directly follows *The Wall Street Journal* in circulation numbers, and is considered of the leading newspaper in the United States with regards to the quality of its reporting and writing. It is considered to be a politically liberal newspaper; the political contrast between *The New York Times* and *The Wall Street Journal* was an additional reason for their inclusion in this study.

One feature of the outbreak narrative is the focus on a disease's diffusion to and arrival in a developed country, e.g., the United States. The first laboratory confirmed case of Ebola in a patient other than an international aid worker was diagnosed in Dallas, Texas, on September 30, 2014 (CDC, 2014). Thus, this study includes *The Dallas Morning News*, the major newspaper for the Dallas-Fort Worth, Texas area and the 9th largest metropolitan newspaper in the United States (DMNMedia, 2015). In addition to including a local perspective, this study includes an international, non-United States perspective through *Al Jazeera*, a Qatar-based satellite television network owned by Al Jazeera Media Network. *Al Jazeera* releases content in a variety of formats and languages, including English-language online posts. *Al Jazeera* is widely regarded as being a high quality and fairly impartial source of international news. In *Al-Jazeera and US War Coverage*, Tal Samuel-Azran writes that *Al Jazeera* aims to “emphasiz[e] news from the developing world, without an Anglo-American world-view” (Samuel-Azran, 2010).

Sampling and Article Selection

Systematic sampling methodology offers this analysis an element of rigor notably lacking from other studies of Ebola's narratives, such as Zerner's work (2003), which

selectively choose pieces for analysis. Articles from each of these sources came from three different databases. Articles from *The New York Times* and *The Wall Street Journal* were selected from ProQuest Newsstand, using the East Coast Late Edition of *The New York Times* and the Eastern edition of *The Wall Street Journal*. *The Dallas Morning News* articles were selected from the Access World News database by NewsBank, inc., and come from the electronic edition of the newspaper; the various blogs of *The Dallas Morning News* were not included. Articles from *Al Jazeera* were selected from the LexisNexis Academic database and were the web-based publications of the Al Jazeera Media Network. No data were available on LexisNexis Academic for *Al Jazeera* March 5-9, 2014, March 11-15, 2014, March 18-20, 2014, March 22-23, 2014, March 25-26, 2014, and March 28-April 1, 2014 (LexisNexis, n.d.); this is not a large limitation, given that *The New York Times* and *The Wall Street Journal* published a combined 7 Ebola-related articles prior to April 2014, so it is unlikely that *Al Jazeera* would have published many articles about Ebola in that time period.

This study required the construction of time-bound sample. The first cases of Ebola during this outbreak (identified during later epidemiological investigation) occurred in December 2013; although the cases weren't reported to local health officials until March of the following year, the date range for the articles that constitute the data set for this analysis starts on December 1, 2013, because that was the month of the first cases. The aforementioned first laboratory-confirmed case of Ebola in the United States was diagnosed on September 30, 2014; to allow the news of the first cases to play out through multiple media cycles and at least one 21-day Ebola incubation period following the death of that patient, Thomas Duncan, on October 8th, the end date of the date range for these articles is October 31, 2014. Although somewhat arbitrary, this date range was constructed to include the

beginning of the epidemic, a possible peak in foreign interest around July 30, and the initial Dallas, TX case.

To retrieve the articles from each source, their respective databases were queried using a general keyword search for the word “Ebola,” yielding 1384 articles. Upon reviewing the articles, it became clear that some articles were not about Ebola; for example, articles about the stock market and international sports competitions. Additionally, some articles were short-form news briefs with one-line updates from around the world. Finally, two articles were included more than once in the search results. Therefore, each article was reviewed for content and form, and were either included or excluded from the data sample. This resulted in 932 articles (67.34% of published articles). Microsoft Excel’s random number generator was used to select articles according to a proportional random sample based on the proportion of articles from each source (indicated in table 1). After accounting for rounding, an intended sample size of 100 became a sample of 101 articles published between December 1, 2013 and October 31, 2014.

Table 1 – Proportional Random Sampling

SOURCE	INITIAL #	EXCLUDED	REMAINING	PERCENT	SAMPLE
<i>The New York Times</i>	503	188	315	33.8%	34
<i>The Wall Street Journal</i>	392	144	248	26.6%	27
<i>The Dallas Morning News</i>	303	92	211	22.6%	23
<i>Al Jazeera</i>	186	28	158	17%	17
Total	1384	452	932	100%	101

Coding

All sampled articles were coded using ATLAS.ti for Mac OS X, version 1.0.12. Prior to coding, I developed a series of codes based on the main themes presented in this paper’s literature review; throughout the coding process, codes were adjusted for accuracy and specificity. Each article was read thoroughly for passages to which the codes applied. A particularly emphasis was placed on just identifying, rather than analyzing, passages during

the coding process. When coding, phrases, sentences or paragraphs (typically no more than two or three sentences) were assigned codes as appropriate.

The codes were organized into seven different code families: Development, Disease, Ebola Virus Disease, Movement, Place, and Society, as well as one Uncategorized group. The Development code family contains codes related to the development of West Africa as conceptualized by the Western world within a world economic system; examples codes include “Characterization of West Africa” and “Nature-Society Interaction.” The Disease code family contains codes for other diseases such as “SARS” and “Marburg.” Ebola Virus Disease contained codes related to the disease itself, such as “risk of transmission”, “emergence,” and “containment.” Many of the codes in this group were members of other code families as well. Movement contained codes that pertained to the movement of people, disease and goods. Place included specific places, such as Guinea, Dallas, and Senegal. The Uncategorized code family contained codes for ideas such as “animal” and “The Hot Zone.” Finally, the Society code family was constructed of codes relevant to societies and societal phenomena such as “urbanization”, “communication”, and “government response.”

Coding of qualitative data, no matter how rigorous, is an inherently subjective exercise. As a student of development and medical geography who has twice traveled to Sierra Leone, I’ve developed a critical approach to media coverage of stories in Africa, assessing them for their often-poor portrayals of developing countries and societies. I am also an avid consumer of news sources such as *The New York Times* and *Al Jazeera*. Thus, when coding my sample data, I made intentional efforts to disregard my biases and code as objectively as possible. For the sake of simplicity, I use the term “West Africa” to refer to Guinea, Liberia, and Sierra Leone. Although the region of West Africa contains many more

countries, it’s easier to name “West Africa” than naming lists of countries; the CDC refers to the “West Africa Outbreak” (CDC, 2015). Thus, this paper is somewhat complicit in Western discourse on “Africa,” except in this case “West Africa” has replaced “Africa.”

Table 2 – Example Code Families, Codes, and Quotations

CODE FAMILY	CODE	QUOTE
Development	Health Systems	“Scientists say the current epidemic surged out of control because it began near the borders of three countries where people traveled a lot, and they carried the disease to densely populated city slums. In addition, the weak health systems in these poor countries were not equipped to handle the disease, and much of the international response has been slow and disorganized.” (NYT, 24) <i>(Other codes: development, epidemic, border, urban, characterization of West Africa, characterization of Ebola)</i>
Disease	SARS	“But Hong Kong’s SARS experience shows how epidemic-stoked fears can cripple an advanced economy.” (WSJ, 41) <i>(Other codes: economics, public response)</i>
Ebola Virus Disease	Treatment	“The epidemic can’t be contained in West Africa unless roughly 70% of the sick are isolated in a treatment center -- or another setting where they don’t transmit the disease, according to the Centers for Disease Control and Prevention. Treatment centers can’t open without trained people to run them.” (WSJ, 55) <i>(Other codes: containment, health systems)</i>
Place	Nigeria	“By Friday, President Goodluck Jonathan had declared a state of emergency, officially adding Nigeria, home to more than 160 million people, to the list of nations struggling to control one of the largest public-health emergencies in recent history.” (NYT, 29) <i>(Other codes: epidemic, government response, control)</i>
Movement	Emergence	“Other officials have previously downplayed the significance of the virus jumping borders, saying that it was to be expected since people travel and trade frequently across the borders of the three countries.” (ALJ, 101) <i>(Other codes: border, characterization of Ebola)</i>
Society	Public Response	“Yes, these are worldwide numbers and mostly from West Africa, but people already are calculating the economic and societal and political impacts. The WHO warns that the spread of the virus could lead to failed states, adding that the cost of panic is ‘spreading faster than the virus.’” (DMN, 70) <i>(Other codes: impact, epidemic, politics, networked societies, quotation)</i>
Uncategorized	Media	“The U.S. Ebola case is ‘pressuring airline stocks a little bit,’ Stifel Financial Corp. analyst Joe Denardi told Bloomberg News. ‘The worse the news headlines get about this, the more risk there is to airlines.’” (DMN, 82) <i>(Other codes: economics, impact, quotation)</i>

Results & Analysis

Following coding of the sample data, the data were analyzed for themes that appeared most prominently, taking into consideration the distribution of codes across time, source, and subject. This analysis revealed four major geographical themes that focus on how the response to the movement of Ebola illuminates anxieties about the interconnectedness of disparate parts of the world. First, media coverage ascribes Ebola agency as a lurking, methodical, menace that spreads alongside anxiety and fear. The potential movement of Ebola necessitates that the discourse consider various approaches to containment and control, as well as the people and places that need containment; these ideas constitute the second theme, the containment of Ebola. The third theme, the interconnected world, describes the physical connections between different parts of the world through globalization and modern technology, as well as more the more abstract connections between West Africa and the rest of the world. Finally, discussion of the movement and containment of Ebola, as well as the relationships that make up the interconnected world contributes to the construction of a distinct geographical identity for West Africa, in which West Africa is reduced to a series of superficial simplifications.

Movement of Ebola

Media coverage characterizes Ebola as it spreads from one location to another, as well as the people and institutions that enable that spread. Characterizations of Ebola ascribe agency to the virus, turning its diffusion across space from that of a simple pathogen to that of a calculated killer. Africans, particularly rural Africans, enable the spread of the virus, and bear the burden of preventing transmission. The potential for the movement of Ebola from

Africa to other parts of the world highlights the fear and anxiety that accompany that potential. The uncertainty of if, and when, Ebola would arrive in the United States due to the novelty and unexpected nature of the epidemic lead to descriptions of the United States as uncertain, preparing for the arrival of Ebola amidst a host of unanswered questions.

Descriptions of Ebola, as well as its potential for movement and impact, give the virus agency as a calculated, lurking agent. Ebola is a “festering” pathogen (DMN, 79), a “killer disease stalking” nations (ALJ, 97). However, in addition (and perhaps in opposition) to its construction as a methodical killer, Ebola is constructed as free willed and out of control. “Ebola has run rampant” (WSJ, 59), “moving faster than authorities can handle” (ALJ, 97), allowed to “rampage through West Africa” (NYT, 20). Ebola is a “wily, unfamiliar pathogen” (WSJ, 42) “spreading at a terrifying clip” (WSJ 57) that “can adapt to become deadlier” (WSJ, 42). Ebola’s diffusion is seen as both controlled and uncontrolled, a virus spreading “geometrically” (WSJ, 47) and “geographically” (WSJ, 48), while also “spreading like wildfire” (ALJ, 89) across space, “leapfrog[ing]” from one area to another (NYT, 31).

Given the chaotic nature of Ebola’s spread, the “virus’s uncontrolled spread” (NYT, 24) necessitates efforts to “contain the killer disease” (ALJ, 97). This containment must “stamp out the epidemic” (NYT, 30), as it “requires an extraordinary response to stop its spread” (ALJ, 99). Specific biomedical approaches must “throw a wrench into the Ebola virus’s replication process” (WSJ, 43), a “notoriously sloppy” replication process (NYT, 26) that complicates containment efforts, given the indiscriminate replication of the virus. Together, these descriptions give Ebola agency as virus “sweeping” West Africa (NYT, 29), an unpredictable and dangerous threat to any society in its path.

However, the spread of Ebola is enabled by rural Africans, who also bear the burden of controlling Ebola's spread. Attempts to explain the spread of the epidemic explain that it "surged out of control because it began near the borders of three countries where people traveled a lot, and they carried the disease to densely populated city slums" (NYT, 24). These traveling people are to blame for not only for the "surge out of control," but for transporting the virus to urban areas; by enabling the spread of Ebola to urban areas, these infected individuals are seen as enabling the spread of the virus to the world, connecting remote, rural areas to the interconnected world via urban spaces. Readers are encouraged to "understand how Ebola has run rampant through Liberia's urban poor, who in many ways live by their own rules in a city of one million" (WSJ, 59). This quotation ties the ungoverned people of Monrovia to the spread of Ebola, connecting the mayhem of a crowded African capital city to the chaos of Ebola's uncontrolled spread.

Given the perceived roles of people in the spread of the epidemic, the burden of preventing further movement is placed on West African governments and leaders. In the early stages of the epidemic, "West African leaders agreed [...] to take stronger measures to try to bring the worst outbreak of Ebola under control and prevent it spreading outside the region, including steps to isolate rural communities ravaged by the disease" (ALJ, 100); at the same time, these countries "will need to redouble their efforts to contain a virus for which there is neither a cure nor a vaccine" (NYT, 34). West African leaders are explicitly tied to the responsibility of stopping Ebola from leaving their region, in an attempt to protect other areas of the world from a virus that has the potential to harm non-West Africans. It should be noted that the World Health Organization is ascribed agency in its response, "declaring the epidemic an international health agency and appealing for global aid" (ALJ, 98), although

media coverage seems to explore this agency mostly as it relates to threat of Ebola to the rest of the world, rather than the threat to West Africa.

In addition to its attention to the spread of Ebola, media coverage notes how the spread of fear and anxiety mirrors, and sometimes precedes, the spread of the virus. These moments lend media coverage a certain element of self-awareness, separating (to an extent) the justified fear of the virus from perhaps unfounded fear. Steven Johnson, a science writer and author of *The Ghost Map*, a popular account of the 1854 Broad Street Cholera epidemic in Soho, London, notes the similarities between the two epidemics, cautioning that “there is another element of the Broad Street outbreak that warrants attentions today, as popular anxiety about Ebola surges across the airwaves and subways and living rooms of the United States: not the spread of the disease itself, but the spread of information about the disease” (NYT, 7). Johnson later noted that “as societies and technologies evolve, the velocities vary with which disease and information can spread,” calling attention to the ways in which modern technology enable the spread of information (and by extension, fear, panic and anxiety) alongside the spread of disease.

The spread of fear is also grounded in specific geographic locations such as West Africa, where the “WHO warns that the spread of the virus could lead to failed states, adding that the cost of panic is spreading ‘faster than the virus’” (DMN, 70). Meanwhile in Dallas, Texas, days after Thomas Duncan died from Ebola (the first diagnosed case in the United States), Pulitzer Prize-winning journalist David Phillips noted that “there is no evidence that the Ebola virus has spread in this vast metropolitan area of 6.5 million people. But fear has” (NYT, 17). In the New York City metropolitan area, medical personnel who had been infected with Ebola while abroad were treated in multiple area hospitals, including

University Hospital in Newark, New Jersey and Bellevue Hospital in New York City.

Hospitals prepared for treating these patients, while government and hospital officials sought to “quell” fears that the surrounding areas were at risk (NYT, 4), expressing their faith in those institutions to prevent transmission of Ebola. Despite these displays of confidence,

As more doctors and nurses return from Ebola-stricken countries in West Africa, public anxiety has soared about the potential for contagion -- even though only one person in the United States has died from the virus, and several have recovered or returned from West Africa and never shown symptoms. (NYT, 1)

While this attention to the spread of fear and anxiety as it relates to the spread of Ebola isn't exactly reflexive (e.g., it lacks acknowledgement of the role the media plays in the development of this particular public response), it perhaps signals to readers a distinction between the spread of anxiety about Ebola and the spread of Ebola itself.

The ambiguity surrounding the movement and transmission of Ebola is associated with a reactive government response in the United States, instead of a proactive one. As doctors and nurses who had been in West Africa treating Ebola patients returned to the United States, it was unclear if they represented a risk to the United States, or how they might be quarantined or treated upon their return. Government officials “struggle[ed] to define public health policies on the virus, leaving a confusing patchwork of rules regarding monitoring, restricting and quarantining health care workers who have treated Ebola patients, whether domestically or abroad” (NYT, 1).

That “confusing patchwork of rules” was quickly tested after Dr. Spencer’s diagnosis. In New York City, “medical investigators fanned out [...] to retrace the movements of the city’s first confirmed Ebola patient in the 51 hours before he reported a fever,” closing a bowling alley in Brooklyn, a restaurant in Manhattan, and a coffee stand in Manhattan’s High Line park (WSJ, 36). Media coverage asserts that although medical investigators were

assigned to the case, clear and unambiguous policies could have lowered the risk of transmission. “In the wake of the Duncan case,” Siddhartha Mukherjee, a physician known for his 2010 book *The Emperor of All Maladies*, called for “three strategies to contain the entry and spread of Ebola in the United States,” including travel restrictions, screening of passengers, and isolation of infected individuals (NYT, 15). In “waiting for the CDC to figure [stopping the potential spread of the disease] out,” (DMN 75) the United States is held in suspense by the new, unknown epidemic.

In the narrative constructed by media coverage of the current Ebola outbreak, attention to the movement of Ebola, and the perceived threat created by this movement, contribute to the characterization of Ebola as an active agent, the spread of which is enabled by African populations in Guinea, Liberia and Sierra Leone. Additionally, the narrative characterizes the United States as reactive and uncertain, caught off guard by the emergence of a relatively new threat. The narrative acknowledges, however, that the movement of Ebola has been preceded by the diffusion of fear and anxiety, albeit with very limited acknowledgement of the role media plays in contributing to the development of fear and anxiety.

Containment and Control of Ebola

Concerns over the movement of Ebola occur at many scales, including transmission from individual to individual, the spread of Ebola from one community to another, and the potential for further international diffusion. Those concerns generate a desire for containment and control, and for the prevention of any further transmission. In the case of Ebola, strategies for control (as categorized within media coverage of the outbreak) vary according

to their geography. In West Africa, control is conceptualized as reactive amidst places of squalor, while in the United States control is proactive in spaces of precision. The two places have different responsibilities, as well: West Africa is to stop transmission, while the United States must prevent transmission. This narrative places faith in “modern” control techniques that rely heavily on the biomedical model of medicine and public health. West African Ebola patients are conceptualized as coercive, hidden, and conniving, acting against modern control efforts. The containment of disease, in both West Africa and the United States, adopts particular ideas about the people and places involved with controlling an uncontrollable disease.

In West Africa, efforts to control the outbreak are reactive; media coverage primarily focuses on efforts that occur in Ebola’s wake, rather than efforts to contain its spread, whereas the mentioned measures taken in the United States are often proactive, e.g., they occur prior to the movement of Ebola. Control and containment measures are “effort[s] to contain” Ebola, rather than proactive decisions to protect uninfected areas within West Africa from contracting the virus (ALJ, 98). Similarly, descriptions of how “thousands of health care workers seek to control the deadly virus in West Africa” (NYT, 13) highlight the reactive nature of the West African response to Ebola. Admittedly, containment and control in West Africa has been reactive, because the unexpected outbreak caught West African governments, and the entire international public health community, off guard. However, characterizations of the West African response that fail to account for proactive and successful containment efforts reinforces the perception of West Africa as incapable and unprepared, especially when compared to the United States.

Even when containment efforts are practiced, they're recognized as insufficient. "The situation in Guinea, Liberia, and Sierra Leone continues to deteriorate, with widespread and persistent transmission of Ebola...There is no evidence that the Ebola Virus Disease epidemic in West Africa is being brought under control" (ALJ, 86). That insufficient response contributes to worries about the movement of Ebola, which means "the afflicted nations and their neighbors will need to redouble their efforts to contain a virus for which there is neither a cure nor a vaccine" (NYT, 34). The reality of an epidemic means that containment is necessary; however, media coverage of these particular containment efforts highlights not only the perceived ineffectual actions of the countries, but links their actions with the perceived threat to other areas of the world.

It should be noted, however, that some West African containment efforts receive control-laden language. Containment efforts to stop the physical movement of Ebola include "checkpoints along the main highways [which] have increased tenfold [...] Every checkpoint is manned by volunteer health workers using temperature guns to test for those travelling with a fever," while "military officials have become stricter, demanding newly introduced Special Ebola Response passes issued for cross-country travellers by the health ministry" (ALJ, 92). This description does ascribe a certain element of control to preventing the movement of Ebola across space. By noting the checkpoints for Ebola on major thoroughfares via which Ebola might diffuse across space, media coverage attributes the ability for containment to Sierra Leone. However, this one description should not be mistaken for the overall depiction of Sierra Leone's containment efforts as ones of control and precision, as they are very infrequently described as such.

Containment in the United States, meanwhile, is described as a precise, controlled set of actions. In New York and New Jersey, “state officials [...] increased the screening of foreign travelers beyond the federal guidelines, instituting mandatory quarantines for health-care workers returning from West Africa and others who have come in contact with Ebola patients” (WSJ, 36). While government officials secure borders and use quarantines as containment measures, hospitals have protocols described as “an inordinate amount of safety” (NYT, 30). At Emory University Hospital, in Atlanta, Georgia,

‘We have a specially designed unit, which is highly contained,’ Dr. Bruce Ribner, a specialist in infectious diseases at Emory, said last week. ‘We have highly trained personnel who know how to safely enter the room of a patient who requires this form of isolation. We have control over everything coming out of the unit, so that everything is made noninfectious before any materials come out.’ (NYT, 30)

After Thomas Duncan’s diagnosis, officials quickly worked to contact individuals to whom Duncan may have transmitted the virus. Those individuals were to be “monitored for three weeks, receiving twice-a-day visits from health officials who will take their temperature and inquire about other symptoms” (NYT, 20). Although this approach is technically reacting to Duncan’s diagnosis, it’s described as methodical and comprehensive, an approach that “cast[s] a wide net” (NYT, 20). In the above examples, containment in a United States context is controlled and comprehensive, going above and beyond what’s necessary to provide comprehensive protection.

While containment in the United States has not been a perfect process, with a few cases of secondary transmission from some patients to their nurses, those missteps are incorporated into a narrative of control. For example, “the Centers for Disease Control and Prevention, despite a rocky beginning, now recognizes that containing Ebola presents unexpected challenges in technique and execution” (WSJ, 42). Even when things went wrong,

the important takeaway is that the CDC has a plan to move forward, one that requires “technique and execution,” while no doubts are raised as to the CDC’s ability to execute those steps. Even when considering the potential for further transmission in the United States, it is “expect[ed] that U.S. health officials will contain Ebola. The CDC has already changed its protocols and [...] the level of caution will be ramped up several levels” (DMN, 70). Despite the challenges of containing Ebola, faith in containment efforts outweigh concerns of transmission.

Great faith is placed in “modern” control and containment efforts, those driven by Western science and biomedicine. When woven into the containment narrative, these control efforts are precise and descriptive, with enough detail to allay fears but without any confusing or technical language. Treatment for Ebola patients in the United States occurs in spaces identified as modern, safe, and reliable, like Bellevue Hospital in New York City, where

The rooms employ so-called negative-pressure ventilation, which allows air to flow into an isolation room, but not let the contaminated air out. Each isolation room is equipped with an anteroom, where health-care workers can put on and remove safety equipment. And the floor has its own point-of-care testing lab so specimens don’t have to go to the hospital’s main lab, according to union leaders and other people familiar with the area. (WSJ, 37)

Not only are treatment spaces controlled through modern techniques, but spaces through which patients with Ebola might move are also subject to these controls. At Emory University Hospital,

Not long after the ambulance pulled into a service entrance at Emory, it left the hospital, its driver wearing a white hazardous materials suit. Security was tight at the hospital: Ahead of Dr. Brantly’s admission, law enforcement officers were posted around the building, and a police canine unit performed an inspection. (NYT, 33)

By describing the physical spaces in which containment measures occur, as well as the precision and detail with which they occur, the containment narrative creates the United States' control as exact and trustworthy, especially when compared with the chaos and reactive nature of containment in places other than developing countries.

Within the containment narrative, spaces, movement, and people's actions are all included, contributing to a comprehensive approach to containment that provides more than adequate protection. For example, all staff at Emory University Hospital are

highly trained in the specific and unique protocols and procedures necessary to treat and care for this kind of patient,' the hospital said in a statement on Tuesday. 'The standard, rigorous infection-control procedures used at Emory protect the patient, Emory health care workers and the general public.' (NYT, 32)

Not only are these controls designed to protect the general public, but the protection they offer transcends other motives, such as political issues, highlighting the importance of addressing the Ebola outbreak (and its potential movement to the United States) using tools such as modern science. In California,

'The governor has said publicly about this issue that he is not inclined to make any political decisions about something as serious and dangerous as Ebola,' said Diana S. Dooley, the secretary of the California Health and Human Services Agency. 'He wants this to be science-driven to protect the public, protect workers and to respect those health professionals that are going to Africa to fight this disease.' (NYT, 1)

The image of control presented in the containment narrative shows a reliance on the Western conceptualization of control, specifically measures of strict adherence and precision, to protect the United States from the potential threat of Ebola.

Images of a controlled, precise biomedical approach to containment in the United States are presented in contrast to the relative chaos of containment in West Africa, especially with regards to controlling and containing Ebola patients in West Africa. West African patients are described as deceptive, attempting to escape the modern techniques so

readily endorsed by the media. These patients refuse or don't seem to want treatment, the consequences of which include endangering the public at large, as untreated Ebola infections can contribute to the continued diffusion of Ebola. In fact, Dr. Armand Sprecher, a public health specialist for Doctors Without Borders noted that the “big problem is finding the patients in a timely way and convincing them to come to the treatment center [...] If you don't have a carrot to hang out there and bring people in, then you can't contain it” (NYT, 30). Containment of West African patients is necessary, for “as long as the epidemic rages out of control in Guinea, Liberia and Sierra Leone, there will always be a risk that infected people will leave their home countries and seek better conditions elsewhere” (NYT, 9). In response to the continued transmission of Ebola in Sierra Leone, despite treatment efforts,

The population of six million will be confined to their homes from midnight on Thursday as almost 30,000 volunteers go door-to-door uncovering patients and bodies hidden in people's homes. 'Rain or shine, the shutdown exercise is going to go ahead. During the three days... the job is going to get done,' said Steven Gaoja, head of the government's emergency operation centre. (ALJ, 90)

In these descriptions, patients must be convinced to come to treatment centers; given the role that Western biomedicine plays in treating Ebola, as evidenced by the containment narrative's attention to images of precision and control, the fact that West African patients must be convinced to receive this treatment only serves to highlight their construction as backwards, unknowledgeable people. Additionally, these uncooperative patients, who may hide not only themselves, but also deceased people, at home, must be tracked down, no matter what, because they are represented as a threat to areas other than Guinea, Liberia, and Sierra Leone. These uncooperative, deceptive patients “will always be a risk” (NYT, 9). Additionally, patients in the United States, particularly American patients, are presented as

more compliant and cooperative. The contrast highlights the differentiation between “us” and “them,” between Americans and Africans, as presented in the literature review.

In differentiating so deliberately between perceptions of containment in the United States and in West Africa, the containment narrative further highlights the various risks posed by the movement of Ebola described in the first section of this analysis. In West Africa, where control is reactive, containment efforts are seen as stopping transmission, presumably to protect the United States against the movement of Ebola. In the United States, however, control is proactive, protecting the United States against not only Ebola, but the sloppiness of West Africa’s Ebola response. Control in the United States, a series of precise, controlled measures that rely on Western ideas of biomedicine and control, also protects against the potential threats presented by coercive, manipulative West African Ebola patients. Containment of Ebola fits together with understandings of the movement of Ebola to construct not only a threat to the United States, but the containment of (and protection against) that threat.

Geographical Identity

Perceptions of the threat of Ebola, especially as it exists in an interconnected world, contribute to the construction of West Africa, a geographical identity that allows for the emergence of Ebola within a chaotic, African context. The identification of West Africa creates a sense of geographical precision, allowing readers to feel as if they understand the specifics of West Africa without requiring them to actually identify any specifics. Notably, this construction occurs through identifying not only the specifics of West Africa, but also the distinct differences between West Africa and the United States, effectively separating out

the “self” and “other.” This geographical identity relies on previously constructed ideas of Africa that have permeated Western discourse for centuries; West Africa, in this case, becomes a smaller version of “Africa.” Media coverage of the current Ebola outbreak ascribes to West Africa an identity of fragility and instability. Containment of the Ebola outbreak is created through stability, a quality lacking in West Africa. West Africa becomes a region with porous borders, an unaware, oblivious area that lacks the wherewithal necessary to prevent, recognize and contain the Ebola outbreak. Characterizations of place permeate the construction of West Africa through the descriptions of specific places, as well as the notable absence of description of other types of places. As it pertains to Ebola, West Africa consistently contains lush, tropical spaces, ones that form the origins of disease. The described places are either crowded, stifling and urban, or rural, isolated and poor; according to the discourse, no other types of places occur in West Africa. Treatment of Ebola in West Africa only occurs in places of squalor, distinctly different from the spaces of treatment in the United States, which are modern and clean.

In media coverage of the Ebola outbreak, the political stability of Guinea, Sierra Leone and Liberia is consistently questioned, combining the three countries through the construction of an unstable region. Discussion of political stability frequently mentions “decades of war and political upheaval,” (NYT, 27) without concrete references to any progress made in the post-war period. With regards to Ebola, it’s noted that “the spread of the disease has threatened to undo progress made in rebuilding Liberia and Sierra Leone after their wars of the 1990s, and exposed the fragility of the state in Guinea” (ALJ, 89). Although Guinea hasn’t experienced civil war in its post-independence period, the country is mentioned in the same sentence as Liberia and Sierra Leone’s history of civil war,

reinforcing Guinea's proximity to political instability. The political stability of the three countries is so precarious that Ebola may trigger civil unrest; "a Liberian minister has warned the country may slip back to civil war along with neighbouring Sierra Leone if the Ebola epidemic ravaging West Africa is allowed to continue to spread" (ALJ, 88). By consistently referencing the potential for political fallout, media coverage contributes to the construction of West Africa as unstable.

In addition to questioning the political instability, media coverage references the affected countries' economic instability as evidence of the region's overall instability, noting that "the Ebola epidemic threatens to jeopardise the fragile economies of the affected West African nations" (ALJ, 97). While this is certainly possible, and the economic fallout due to fear and aversion behavior (as discussed in the previous section) will contribute to poor economic outcomes in these countries, the discussion of economic volatility further constructs the region's instability. Importantly, this construction happens without any acknowledgement of the structural processes and unequal relationships of dependency and power between Western countries and the affected countries. Interestingly, contributions from Chinese investors ascribe some economic power to the area; for Zhang Wenguo, the manager of a Chinese-owned hotel popular with visiting Chinese businessmen, "Sierra Leone is like someone running a race and then Ebola knocks them down; they'll get up...Ebola is real, but so are the business opportunities" (WSJ, 40). Through this quote, Sierra Leone retains some economic agency.

The Ebola outbreak has highlighted the challenges of confronting Ebola in a variety of different health systems, including in the United States and in West Africa. Although the health systems of the three West African countries have struggled to comprehensively

address the outbreak, media coverage often mentions this fact with much more figurative language and description, and associates the difficulties of controlling Ebola with general poor development and instability, raising the possibility that “the epidemic will not be brought under control and that the disease will become endemic in West Africa, meaning that it could reach a steady state and become a constant presence there” NYT, 23. This “fail[ure] to contain Ebola could send already fragile West Africa into renewed instability” NYT, 22. In quoting an editorial published in *The New England Journal of Medicine* written by Dr. Jeremy J. Farrar of the Wellcome Trust and Dr. Peter Piot of the London School of Hygiene and Tropical Medicine, media notes

Guinea, Liberia and Sierra Leone are among the world's poorest countries, and the epidemic has overwhelmed their health care systems, which were weak to begin with... ‘Indeed,’ the authors say, ‘there is a very real danger of a complete breakdown in civic society.’ (NYT, 23)

The potential for instability (as it relates to development, particularly the development of health systems), homogenizes the region, scaling up the problems from one country to the whole area. As Joanne Liu, the International President of Médecins Sans Frontières, described her organizations work, “‘if we don't stabilise Liberia, we'll never stabilise the region’” (ALJ, 97). The combination of political, economic and developmental instability contributes to the construction of West Africa as a set of unstable societies threatening to come undone due to the Ebola outbreak.

Ebola coverage also ascribes a sense of obliviousness to West Africa. The ability of governments to recognize their priorities is called into question, as it's only later in the epidemic that “Sierra Leone finally appears to be getting to grips with its Ebola response” (ALJ, 92). Even when aware of the issues at hand, “Liberia's government felt it was easier to simply quarantine the neighborhood than change its sanitary habits” (WSJ, 59). West Africa

also suffers from a streak of lawlessness, one that illuminates “how Ebola has run rampant through Liberia's urban poor, who in many ways live by their own rules in a city of one million” (WSJ, 59). This disregard for order works in opposition of the stability required and control required for treating Ebola. When it comes to individuals, “‘we have spoken to them, but excuse me to say, Liberians, they don't listen to instructions,’ said James Beyan, the Liberian ministry's director of personnel. ‘That's what caused Ebola in this country’”(WSJ, 55). This obliviousness can be found in all aspects of society, at the individual, community and government levels, substantiating the idea of West Africa as unaware and unable to provide any sense of stability for the country.

West African countries are constructed as lush and tropical, where countless interactions between people and nature blur the distinction between the human and natural worlds. The connection between people's lifestyles and livelihoods with Ebola's zoonotic origins intensifies the perceived relationship between disease emergence and places like the forested areas of West Africa. In these areas, “opportunities for such cross-species jumps are increased by the loss of wildlife habitat to development as well as the human consumption of bushmeat due to poverty or cultural preference” (WSJ, 61). These “opportunities” can be thought of as the origins of disease, thereby connecting the forests of West Africa with disease emergence. When considering disease emergence, “we may not be able to directly address the drivers of infectious disease, but we can invest in surveillance in the developing world where cross-species transmission is likely to occur” (WSJ, 61). These quotes connect West African nature-society integration with disease emergence, conceptually construction a region specific place in which the Ebola epidemic “erupted in the forested zone straddling the borders of Guinea, Sierra Leone and Liberia” (ALJ, 97). When foreigners visit these areas,

they report on travel that takes “seven hours along a bumpy road to drive from the capital of Sierra Leone to scattered villages...Along the way, there were true tales of Liberian cannibals, of sorcery, and of black-magic murders of children” (DMN, 84). By associating stories of black magic murders and sorcery with truth, and with a set of scattered villages located somewhere in the Sierra Leonean countryside, the author reinforces Sierra Leone (and by extension, West Africa’s) identity as a lush, tropical place of magic and secrecy, as a place of which Western audiences should be afraid.

In West Africa’s geographical narrative, space is identified as either rural, isolated and poor, or urban, stifling and crowded, with no room for any spaces that fall outside of these descriptions. Ebola is described as having entered “densely populated, impoverished cities,” (NYT, 24), where an increasing population lives in “large city slums” (NYT, 26) and communities are “crammed into tin-roof homes” (WSJ, 59). In these “densely populated city slums” (NYT, 24), the residents “are jammed so tightly together [that] there’s not much room for a grave” (WSJ, 59). Juxtaposed against these urban spaces are “isolated villages” (NYT, 26), where the spread of Ebola necessitates action to “isolate rural communities ravaged by the disease” (ALJ, 100). In these villages, “where children walk[] around smiling and mostly naked,” (DMN, 84), the spread of Ebola has caused wide spread “desolation” (WSJ, 84), creating “Ebola-infected hamlets” (WSJ, 59). These two types of spaces, crowded urban slums and isolated ravaged villages, are the only types of spaces described in media coverage of the outbreak, playing into an already conceptualized idea of the spaces of West Africa.

According to media coverage of the outbreak, the treatment of Ebola occurs only in spaces of squalor and disorganization. Media coverage uses vivid, figurative language to describe these spaces of treatment (or non-treatment), using descriptions that conform to

West Africa's overall narrative. In West Africa, "the holding centers appear to be little more than stiflingly hot places to die" (NYT, 21), unlike the pristine treatment centers of the United States so specifically described in the previous section. Unlike those clean, modern spaces, in West Africa, "there are almost no buckets full of bleach []. There have never been enough latrines, so children play on a beach splattered with excrement" (WSJ, 59). In the treatment centers themselves, "Ebola patients are dying under trees at holding centers or in foul-smelling hospital wards surrounded by pools of infectious waste, cared for as best they can by lightly trained and minimally protected nurses, some wearing merely bluejeans" (NYT, 21). These descriptions, only a selection of the many interspersed throughout the sample, contribute to the idea of West Africa as a dirty, unorganized, chaotic, distinctly non-Western place.

Interconnected World

Media coverage of the 2014 Ebola outbreak highlighted anxieties about how the modern highly interconnected world might create conduits through which Ebola could threaten the entire world. Increased economic, political, and social integration, as well as the physical movement of people and goods, create networks through which disease might also spread. Through this interconnectedness, what's happening in one area of the world is all the more likely to impact another part of the world. In media coverage, given this modern context, Ebola's transmission from one area of the world to another, e.g., from West Africa to the United States, is inevitable. It's recognized, then, that proposed travel bans, especially via air traffic, offer little protection to individuals while disadvantaging the societies that need Western assistance; more importantly, Western societies have a responsibility to

address Ebola in those places, for both the sake of those countries and the future of the interconnected world. Interestingly, media coverage does present a somewhat straightforward connection between globalization, the spread of public anxiety and the public reaction generally, and the economic impact of that anxiety.

Inherent in the modern interconnected world is the creation of networked societies, a dynamic, ever-changing set of relations governed by complex power differentials that necessarily connect all parts of the world, in which what happens in one part of the world has the potential to dramatically impact any other part of the world. Wrapped up in those networked societies is the inevitable risk of transmission of ideas, goods, and as it pertains to media coverage of the Ebola outbreak, disease. As Michael Osterholm, director of the Center for Infectious Disease Research and Policy at the University of Minnesota wrote, a future possibility that “should keep us up at night” is that Ebola

spreads from West Africa to megacities in other regions of the developing world. This outbreak is very different from the 19 that have occurred in Africa over the past 40 years. It is much easier to control Ebola infections in isolated villages. But there has been a 300 percent increase in Africa’s population over the last four decades, much of it in large city slums. What happens when an infected person yet to become ill travels by plane to Lagos, Nairobi, Kinshasa or Mogadishu — or even Karachi, Jakarta, Mexico City or Dhaka? (NYT, 26)

Osterholm identifies the inherent risk posed to societies by modernity, by the connections between the “large city slums” of Africa’s urban population and the rest of the world, arguing that stopping the epidemic is about “humanitarianism and self-interest. If we wait for vaccines and new drugs to arrive to end the Ebola epidemic, instead of taking major action now, we risk the disease’s reaching from West Africa to our own backyards.” Osterholm highlights the role modern interconnectedness plays in enabling that transmission.

The diagnosis of Ebola in Nigeria in August, the first known diagnosis outside of Sierra Leone, Guinea, and Liberia, scared many people due to the perceived connection between risk of transmission, urban environments, and the difficulty of containing Ebola. Although this connection undoubtedly complicates controlling the spread of disease, media coverage explicitly ties urban environments to modernity and global interconnectedness. Coverage of Patrick Sawyer's Ebola diagnosis (a Liberian-American who was the first Ebola case in Nigeria) noted that his "story [...] demonstrates just how difficult containing the disease will be in the modern age of rapid travel and growing urbanization" (NYT, 29). Globalization, the increasingly interconnected spread of ideas, goods, people and services from one area of the world to another, also plays into this portion of the narrative, as "globalization means that people are mixing more, trading more and handling more farm animals in industrial settings – all of which facilitate the emergence and spread of infectious diseases" (NYT, 29). Living in an interconnected world necessarily increases the risk of infectious disease transmission, particularly Ebola.

Interestingly, through quotation of prominent individuals, *The New York Times* sets up a bit of reflexivity, albeit spread over the course of two months. In early August, Jeffrey Sachs, an American economist often consulted for his expertise and opinions on global economic development, poverty, and globalization, noted that "rapid epidemic transmission has been with us a long time, but my guess is that it's accelerating, with the number of people on the move and intensity of air travel, global trade and the numbers of displaced people we have globally" (NYT, 29). Sachs directly addresses the role that globalization plays in "accelerating" disease transmission. Two months later, *The New York Times* published an opinion piece by Steven Johnson, a popular American science writer and author of books

such as *Interface Culture: How New Technology Transforms the Way We Create and Communicate* (1997) and *The Ghost Map: The Story of London's Most Terrifying Epidemic – and How It Changed Science, Cities and the Modern World* (2006). In Johnson's piece entitled *Ebola's Information Paradox*, he writes that

We hear it said constantly that modern society is uniquely vulnerable to the threat of a pandemic because of the global connectedness of air travel. Yet we rarely pause to consider the other side of our global connectedness: the speed of information, which was been increasing at a much faster rate over the past few decades than the speed of airplanes has. (NYT, 7)

The juxtaposition of these two quotes, both from prominent voices in American society, opens up the media discourse to the possibility that rapid nature of epidemic transmission might be a constructed sense of speed, rather than simply an objective increase in epidemic transmission.

Given the perceived unpredictability of Ebola's transmission, efforts to control Ebola must be flexible and outsmart this natural pathogen, as "Ebola is an ingenious virus. To fight it, we need to be just as ingenious" (NYT, 15). Although anthropomorphizing Ebola as ingenious gives the virus an unnatural agency, this ingenious characteristic makes the virus unpredictable and its actions unforeseeable, attributes often associated with natural processes, especially the nature of West Africa. To some, it's concerning that "what is not getting said publicly, despite briefings and discussions in the inner circles of the world's public health agencies, is that we are in totally uncharted waters and that Mother Nature is the only force in charge of the crisis at this time" (NYT, 26). Indeed, "the Ebola epidemic in West Africa has the potential to alter history as much as any plague has ever done" (NYT, 26). This potential comes from Ebola's unpredictable emergence into a world of networked societies, highlighting the unique vulnerability of these societies in modern times.

Although an increasingly globalized world can be seen as facilitating the spread of Ebola, the accompanying concept of networked societies recognizes that the Western response to the Ebola outbreak cannot be just to cut off the affected areas of the world. Over the course of the epidemic, many politicians in the United States called for travel restrictions from the affected countries; some countries did impose “draconian” travel restrictions, (ALJ, 97), while airlines such as Korean Airlines suspended flights to Kenya (which hasn’t experienced any Ebola cases). Despite the demands of American politicians to impose travel bans, media coverage reflects a certain sense of responsibility on behalf of the Western public health community. While media does report on the calls for travel bans, these proposed bans aren’t presented as the only possible reasonable action. Instead, media coverage reflects the responsibility of Western countries to respond to public health emergencies in general, as well as during this specific outbreak.

In all public health emergencies, it’s recognized that the international community has a responsibility to provide support and resources to assist in the public health response to any emergency. For examples, “the U.N.’s International Health Regulations, adopted in 2005, commit all member states to respond to the spread of diseases throughout the world that pose risks to public health without unnecessarily disrupting international traffic and trade” (WSJ, 61). This commitment reflects an understanding that all countries must contribute to stopping an epidemic. Indeed, “the international community has a pivotal role as well as international legal obligations to ensure assistance and cooperation, particularly at times of crisis such as this epidemic” (ALJ, 91). Through assistance and cooperation, member states of the United Nations, the same members presented in the idea of networked societies, can contribute to

bettering not only the affected countries, but all members of an increasingly interconnected world.

With regards to this specific public health emergency, i.e., the Ebola outbreak, this sense of responsibility is referenced multiples times within media coverage of the outbreak. American politicians repeatedly called for travel restrictions, to the point of banning travel, from the affected countries in an attempt to contain Ebola; politicians repeated their “calls for a ban on travel from the three most affected African countries – Guinea, Liberia and Sierra Leone – a step Mr. Obama has so far opposed and that the country’s public health experts say would be counterproductive” (NYT, 11). Although enticing, these travel bans are presented as somewhat misguided, as “international medical authorities have warned against such practices, arguing that they will worsen suffering and deprivation, and do little to stop the spread of the disease” (NYT, 27). By presenting the potential detrimental impact of travel bans, media coverage acknowledges the role that Western societies, particularly ones like the United States, must play in addressing the Ebola outbreak.

During the current Ebola outbreak, supporting travel bans does little to help the affected countries control the outbreak; isolation of those countries could lead to further danger and outbreak, rather than the fulfilling the international community’s responsibility to help. David Nabarro, the Senior United Nations System Coordinator for Ebola Virus Disease, “warned the UN General Assembly that without the mass mobilization of the world to support the affected countries in West Africa, ‘it will be impossible to get this disease quickly under control, and the world will have to live with the Ebola virus forever’” (ALJ, 85). The responsibility to respond to all public health emergencies certainly applies to this particular public health emergency, as without that assistance, Ebola has the potential to

persist with no end in sight; thus, the responsibility of addressing the current epidemic becomes a responsibility to protect the future interconnected world.

In addition to preventing travel bans and preventing the transfer of supplies, the responsibility of other countries includes stepping up in times of emergency and urgency. Intentions, as well as the interconnectedness of networked societies, are simply not enough; instead action must be taken. “An indiscriminate ban on travel would make it impossible for aid workers to reach the most widely affected areas, obviously deepening the medical and humanitarian crisis” (NYT, 15); travel bans, then, work in direct opposition to the responsibilities of the international community. It’s understood by “the vast majority [of medical professional who have been fighting Ebola in West Africa] that restrictions like those adopted by New York and New Jersey could cripple volunteers’ efforts at the front lines of the epidemic” (NYT, 5). While attempts to protect against the risk of transmission in places without Ebola, like the United States, are understandable, they must not prevent the international community from fulfilling their obligations to help fight Ebola. When it comes to fulfilling those obligations, “the depth of the challenge we face in containing Ebola requires us to meet this test in a comprehensive manner on multiple fronts, and part of that is encouraging and incentivizing medical personnel to go to West Africa” (NYT, 1). Stopping the spread of Ebola requires a timely, comprehensive and responsible response from the international community.

The development of an interconnected world, including the responsibilities of providing for each other in times of need, has occurred largely in an economic context. Interestingly, the majority of the references to the economic impact of Ebola include an acknowledgement that the spread of anxiety and fear will make the largest economic impact,

rather than the virus itself, because “economic outcomes from epidemics depend both on how they develop and spread and on people’s beliefs about them” (WSJ, 41). During the 2003 SARS epidemic in southern China, so-called aversion behavior accounted for more than 80% of lost economic activity in the region, with SARS-related losses totaling \$8.5 billion in mainland China, \$1.3 billion in Hong Kong, and \$4.3 billion in Canada (WSJ, 41). “In addition to its effect on public health, the emergence of a new lethal infectious agents, or the re-emergence of a known one, can slow travel and trade. This can have profound effects on the economies where the disease appears, and elsewhere given global integration” (WSJ, 61). Changing economic behavior can have catastrophic impacts on countries such as Sierra Leone, Guinea, and Liberia, as their relatively weaker economies are less likely to withstand changes in economic patterns; thus, economic changes due to fear and anxiety, instead of the disease itself, can be extremely detrimental, as many observers have noted throughout the epidemic.

In an interconnected world, where goods and services increasingly flow between disparate places, changes to investment patterns also have the potential to substantially harm the economies of the affected countries. Investment, whether in the form of infrastructure projects, natural resource extraction, or contracts for goods and services, arguably help countries with economic mobility between the realms of “developing” and “developed.” At this point in the Ebola outbreak, “companies from the continent’s largest trading partner have evacuated workers from Ebola-affected countries in West Africa – curtailing trade, stalling crucial projects and compounding the region’s economic woes” (WSJ, 40); in the end, “the economic cost of fear, far more than medical costs, may be the most expensive outcome” (NYT, 13). By decreasing investments, “of course, the greatest economic danger is in the

economic isolation of countries. ‘By default or design, it really is an economic embargo,’ Kaifala Marah, finance minister of Sierra Leone, said over the weekend about his country, which has been all but cut off from the outside world” (NYT, 13). By highlighting the fact that economic outcomes are dependent on consumer and investment behavior, the media indirectly addresses the interdependent relationship between seemingly distant parts of the world, and how the actions of one set of actors can have a tremendous impact on others.

The interconnected world, in which geographically disparate countries are intimately connected through globalization and modern networks, shares a portion of the burden of Ebola; the presence of an infectious disease cannot be seen as the problem of just one geographically defined area. Both the movement and containment of Ebola, then, depend on the physical connections between various areas of the world, especially as the degree of interconnectedness intensifies through trade and globalization, a feature of engagement in the modern world.

Retelling Ebola’s Outbreak Narrative

So this is the strange paradox of the modern epidemic: The speed of information is both our greatest defense against a true epidemic in a city like New York, and it is the source of constant, nagging anxiety that creates the – entirely incorrect – sense that we live in unusually perilous times. A New Yorker or Londoner is far less likely to perish from an epidemic disease than he or she would have been 150 years ago. We are vastly less at risk and at the same time we are more worried – for the same reason. Information travels faster than viruses do now. This is why we are afraid. But this is also we are safe. NYT, 7

Ebola’s original outbreak narrative, as constructed in the early 1990s by pieces such as Richard Preston’s *The Hot Zone* and Wolfgang Petersen’s *Outbreak*, and supported by writings on emerging infectious diseases such as Laurie Garrett’s *The Coming Plague*, traces

the emergence of Ebola from the “viral forests” of tropical Africa through global networks of trade and communication to the societies of the global North, where careful epidemiological work eventually controls and eliminates the threat (Wald, 2008). This narrative arguably dominated the public’s understanding of Ebola until the recent epidemic, when the media coverage of the current epidemic presented the opportunity for either the narrative’s perpetuation or its modification. Based on the above analysis, I argue that today’s articulation of Ebola’s outbreak narrative is distinctly different than its original incarnation, although it builds on that original narrative to retain its strength and contains many of the same elements. Additionally, although the narratives themselves may be distinct, the impact of the two narratives largely remains the same; both narratives perpetuate and reinforce a constructed Western imaginary of Africa and Africans as ignorant, diseased, and underdeveloped.

Both sets of the outbreak narrative build on anxieties about globalization and modernity to construct the threat of Ebola to the modern world. These anxieties are powerful because of their distinction between “us” and “them,” those in the affected countries from where Ebola emerged, and those potentially threatened by Ebola’s escape from its original confines. Zerner writes that “unsettling representations of circulation” contribute to Ebola’s original outbreak narrative (Zerner, 2003, p. 251), while media coverage today focuses on similar ideas, as the circulation of people facilitates the movement of diseases like Ebola; this circulation facilitates “microorganisms moving from the South and penetrating the global North” (ibid). The original narrative also “focuses on the potential of webs and networks to facilitate the dispersion of infectious diseases” (ibid), much as today’s media coverage highlights the potential for diffusion through travel and globalizing connections between Ebola affected countries and other areas of the world. In detailing the various components of

Ebola's movement and containment in an interconnected, globalizing and distinctly modern world, the current Ebola outbreak narrative mimics the original, highlighting the same anxieties and fears presented in the early 1990s.

In these narratives, Ebola is ascribed the personality of an anthropomorphized, calculated, killer that strikes without warning. In the original outbreak narrative, "Ebola and the ancient African nature it signifies are vested with malevolent agency, charged with the sinuosity of animal movement...Ebola, like a wild African predator, retreats after a kill and prepares to strike again" (Zerner, 2008, p. 254); this characterizations occur throughout media coverage of the current outbreak. Descriptions of the virus are vivid and figurative, compelling the audience to understand just how horrific the virus can be. The original narrative "offered the audience the visceral experience of the graphic description—and particular horror—of a person's being liquefied by a hemorrhagic virus" (Wald, 2008, p. 39), a series of descriptions contained within the current narrative. Metaphors and descriptive language, of course, give journalistic writing a particular pizzazz, and by many accounts help authors show the on-the-ground experience; how, though, should journalists negotiate the tricky balance between describing what they see and describing what they expect to see? As Wald notes, writings such as *The Coming Plague* (and today's media coverage) "exemplif[y] how a conscientious, informed, compassionate account of disease emergence can be complicated by language and images that tell competing stories" (Wald, 2008, p. 32).

The environmental component of the original Ebola outbreak narrative seems to have changed. Although today's narrative perpetuates the tropical, exotic qualities of the West African landscape, these forests occupy a much less prominent role than Zerner identified in works such as *The Hot Zone* and *Outbreak*. Zerner's understanding of Ebola's emergence

starts in Africa's "viral forest[s]," places from which disease violently emerges outward, infiltrating networks of globalization to threaten the world, as described in the outbreak narrative. In his analysis, Zerner draws attention to the role forests, ecology and nature-environment interactions play in facilitating the story of Ebola's emergence. While the original narrative may have relied on the "viral forest[s]" as a place of disease emergence, current discourse pays relatively little attention to the interactions between nature and human populations. Given the current outbreak's geographic location and initial cases, which occurred in rural Guinea, this lack of attention to nature-environment interactions is somewhat surprising. If Ebola's outbreak narrative relies so heavily on the outward spiral of the "viral forest," then it could be expected that media coverage focus on the agrarian livelihoods of many West Africans and the frequency with which people interact with their environments, as well as the movement of those people from the forests to global networks. While some attention is paid to this idea, its expected frequency (based on Zerner's work) far exceeds its actual usage.

Both narratives rely on Africa's "geographical imaginary," the constructed set of ideas that reinforce a potentially false understanding of place. With regards to the physical places within the geographical imaginary, e.g., the landscapes of West Africa, there's potential for change from one narrative to the next. As Zerner writes, the original narrative "play[ed] on a legacy of negative images of Africa as primitive, chaotic, disease ridden, and violent: the place of monkeys, the jungle, tribal excesses, and unexplained deaths" (Zerner, 2003, p. 251), a series of images that "intersect and resonate with a centuries-old legacy of European images of the African landscape as a dark, chaotic, pestilential, savage world, a distinctly threatening configuration of an Africa other" (ibid). Notably, while many of these

images do contribute to the geographical imaginary of Africa, the narrative constructed by media discourse doesn't necessarily include all features of this geographical imaginary. For example, while the image of Africa as chaotic, disease ridden, and a threat to the North are present throughout media coverage, less emphasis is placed on Africa as Conrad's "dark continent" than one might expect. Although the local Ebola response is characterized as mismanaged and insufficient, it's neither "savage" nor "tribal," while very few connections are made between animals and the emergence of Ebola. Zerner's identification of Preston's writings as "Kaplansque visions of Africa as a site of inevitable degradation, disease, and social chaos" (Zerner, 2003, p. 257) doesn't apply as strongly to today's outbreak narrative.

Despite changes to the construction of physical places in the new outbreak narrative, the people contained within the geographical imaginary of the new outbreak retain many of the same negative characteristics ascribed to them by the 1990s narrative. Media coverage of the Ebola outbreak inherently relies on the constructed relationship between audience and subject, in this case between an audience in the United States and the people, societies, and places of West Africa. While anxieties about modernity and globalization distinguish between "us" and "them," as Wald writes, the construction of "us" and "them" with regards to disease emergence happens most often when disease emergence is perceived to have come from developing countries. This distinction "stigmatizes impoverished places as it obscures the sources of poverty and of the 'uneven development' that characterizes globalization" (Wald, 2003, p. 45); both sets of narratives fail to account for the complex global processes that create the conditions for disease emergence and the subsequent distinction between "us" and them." This abstract relationship between the United States and West Africa, distinct from the physical interconnected that facilitates the spread of Ebola, encompasses a complex

set of power dynamics that explain the ways in which interactions between the United States and Africa occur. By failing to account for these processes, the current narrative perpetuates this aspect of Africa's geographical imaginary.

Both narratives are rooted in historical representations of Africa and complex, often unacknowledged power differentials between the so-called "developed" countries of the Global North and "developing countries" such as the ones most affected by the current Ebola outbreak, i.e., Guinea, Sierra Leone, and Liberia. Although country names are used to identify specific countries at times, overall media coverage of the Ebola outbreak unifies the affected areas into a homogenous, chaotic, disease-ridden, uniformly-African Africa. Despite the somewhat infrequent attempts to create any distinctions between the people and places of the affected countries, the overwhelming majority of media coverage perpetuates the ideas of Africa presented in the original outbreak narrative. Thus, I argue that although the outbreak narrative presented by media coverage of the current Ebola outbreak is distinctly different from the narrative constructed in the early 1990s by Preston, Garrett, and others, the impact of the narrative remains the same.

Conclusion

As of April 2015, the Ebola outbreak in West Africa has slowed, although has not been extinguished completely. Undoubtedly, for the foreseeable future, media coverage of Sierra Leone, Guinea, and Liberia will mention the outbreak, whether discussing issues of public health, business, or politics. Given the impact Ebola has made on the region, and the as-of-yet unknown consequences of the outbreak, it could seem reasonable and prudent to reference Ebola whenever mentioning the affected countries. The danger, however, is that

continued references to Ebola will perpetuate and reinforce ideas of Africa, Africans, and their relationship to the Global North in an increasingly interconnected and globalizing world. After all, it is through the repetition of ideas that they gain legitimacy and power. In a world that has, at times, acknowledged the global processes that hamper economic development in Africa and create relationships of dependency between the powerful and the less-powerful, how does the continued retelling of Ebola's outbreak narrative continue to disadvantage the people and places of the current outbreak?

The continued repetition of these ideas through media coverage of the Ebola outbreak occurs alongside a variety of other discourses. Although this paper focuses on discourses of globalization and an interconnected world, the construction of Ebola as a threat to the United States plays into biosecurity discourses, in which seemingly objective attempts to separate the healthy "self" from the diseased "other" fixate on artificial state borders as the boundary across which emergent threats must not be allowed to cross (Hinchliffe et al., 2012). In media coverage of the Ebola outbreak, how might the construction of Ebola as a threat to the United States draw on other circulating perceived security concerns from a post-9/11 era? Other potential discourses against which current media coverage could be compared include the discourses of United States domestic politics. How might media coverage of the Ebola outbreak have played into the domestic election cycle and politicized government responses to the outbreak? In an arguably partisan political environment, might media coverage have contributed to the construction of various political actors as responsive or negligent, in control or overwhelmed, or capable or incompetent? Media coverage of the Ebola outbreak could also be tied to discourses of immigration, drawing on the distinctions between "self" and "other," the protection of the state and its borders, and current immigration debates. Thus,

this paper's focus on discourses of globalization and an interconnected world is one of many potential avenues for analysis.

Notably, the production of media coverage of the 2014 Ebola outbreak has occurred in a relatively new media landscape, one that distinctly differs from those of past outbreaks. Increased access to publishing and consumption of media via the internet has undoubtedly changed both the material produced and the ways in which the public access information. How might social media, with its ability to make pieces “go viral” (i.e., rapidly increase in visibility among the public), have influenced the consumption of media coverage of the Ebola outbreak? Social media potentially offers users the opportunity to self-select the articles they see via following specific news sources and the posts of other users; how might this feature have social media narrowed the view of the Ebola outbreak presented to users? Finally, features such as online commenting of news sources by users may have contributed to a “course correction” of media coverage; increased interaction between the producers and consumers of media offers consumers the chance to comment on and challenge media coverage. This represents a significant departure from media coverage of previous epidemics, in which media outlets produced information with few opportunities for feedback. Future research of this outbreak, as well as future outbreaks, could address these potential cases of media reflexivity, in which the media has the opportunity to critically self-evaluate the impact it has on knowledge production.

By analyzing media coverage of the current outbreak, and contextualizing its production within broader narratives of outbreaks, Africa, and an interconnected world, I have shown that since the production of Ebola's original outbreak narrative, media coverage of the 2014 West African epidemic has produced a distinct version of Ebola's outbreak

narrative. Today's narrative has distinct elements, such as a lessened focus on the ecological and environmental aspects of Ebola, and was produced in a media landscape distinctly different from those of previous epidemics. Ultimately, however, today's outbreak narrative contains the same fundamental elements as the original outbreak narrative, so while the narratives may be different, their impact remains much the same; today's narrative reinforces ideas of Africa and Africans as agents without agency or competency. The repetition of these ideas and perspectives through media coverage ascribes legitimacy and power to those constructed "truths"; far from simply reporting the news, media coverage has the power to actively construct our understanding of Africa and Africans via repetitions of already-formulated ideas. Thus, today's outbreak narrative remains problematic through its ability to construct a Western imaginary of Africa.

Appendix 1: Sample Data Citations

Code	Article
NYT, 1	Bidgood, J., & Zernike, K. (Oct 31, 2014). From Governors, a Mix of Hard-Line Acts and Conciliation Over Ebola. <i>The New York Times</i> .
NYT, 2	Choe, S. (Oct 31, 2014). North Korea Said to Impose Ebola Quarantine on All Travelers. <i>The New York Times</i> .
NYT, 3	Hartocollis, A., & Schweber, N. (Oct 30, 2014). Bellevue Employees Face a Virus at Work, and the Stigma of It Everywhere. <i>The New York Times</i> .
NYT, 4	Busch, A. (Oct 26, 2014). In New York, Bringing a Comforting Message During a Chaotic Time. <i>The New York Times</i> .
NYT, 5	Chen, D.W., & Robbins, L. (Oct 25, 2014). New Protocol Seen as Barrier to Volunteers. <i>The New York Times</i> .
NYT, 6	McGeehan, P. (Oct 25, 2014). Officials Soothe Fears, While Workers Sanitize Infected Doctor's Path. <i>The New York Times</i> .
NYT, 7	Johnson, S. (Oct 25, 2014). Ebola's Information Paradox. <i>The New York Times</i> .
NYT, 8	Apuzzo, M., & Fernandez, M. (Oct 22, 2014). 5 U.S. Airports Set for Travelers From 3 African Nations. <i>The New York Times</i> .
NYT, 9	The Editorial Board. (Oct 22, 2014). Some Good News on the Ebola Front. <i>The New York Times</i> .
NYT, 10	Altman, L.K. (Oct 21, 2014). Ethicist Calls CPR Too Risky in Ebola. <i>The New York Times</i> .
NYT, 11	Tavernise, S., & Smith, M. (Oct 18, 2014). Obama Names Democratic Operative to Coordinate Ebola Response. <i>The New York Times</i> .
NYT, 12	Fernandez, M., & Healy, J. (Oct 16, 2014). New Ebola Case Confirmed, U.S. Vows Vigilance. <i>The New York Times</i> .
NYT, 13	Sorkin, A.R. (Oct 14, 2014). Calculating Grim Costs of Ebola. <i>The New York Times</i> .
NYT, 14	Belluck, P. (Oct 13, 2014). Agency Will Offer More Ebola Training. <i>The New York Times</i> .
NYT, 15	Mukherjee, S. (Oct 13, 2014). How to Quarantine Against Ebola. <i>The New York Times</i> .
NYT, 16	Fernandez, M., & Sack, K. (Oct 11, 2014). Ebola Patient Sent Home Despite Fever, Records Show. <i>The New York Times</i> .
NYT, 17	Phillips, D. (Oct 10, 2014). Assurances Are Given and a Deputy Goes Home, but Ebola Fears Persist. <i>The New York Times</i> .
NYT, 18	Minder, R. (Oct 8, 2014). Demands for an Explanation Grow After a Nurse in Spain Contracts Ebola. <i>The New York Times</i> .
NYT, 19	Somaiya, R., & Steel, E. (Oct 4, 2014). For Journalists, a Stark Reminder of the Risk in Covering a Deadly Epidemic. <i>The New York Times</i> .
NYT, 20	Sack, K., & Fernandez, M. (Oct 3, 2014). Texas Apartment Not Sanitized for Days. <i>The New York Times</i> .
NYT, 21	Nossiter, A. (Oct 2, 2014). Outracing Vows of Aid, Ebola Swamps a City Unprepared for It. <i>The New York Times</i> .
NYT, 22	Landler, M., & Sengupta, S. (Sep 26, 2014). Obama Says Global Effort to Stop

	Virus Must Improve. <i>The New York Times</i> .
NYT, 23	Grady, D. (Sep 23, 2014). Health Agency's New Assessment of the Epidemic Is More Dire Still. <i>The New York Times</i> .
NYT, 24	Grady, D. (Sep 13, 2014). U.S. Scientists See Long Fight Against Ebola. <i>The New York Times</i> .
NYT, 25	Gladstone, R. (Sep 12, 2014). Ebola Cases Rise Rapidly in Congo. <i>The New York Times</i> .
NYT, 26	Osterholm, M.T. (Sep 12, 2014). What We're Afraid To Say About Ebola. <i>The New York Times</i> .
NYT, 27	Nossiter, A. (Sep 6, 2014). Ebola Is Taking a Second Toll, on Economies. <i>The New York Times</i> .
NYT, 28	Cumming-Bruce, N. (Aug 15, 2014). Health Officials Try to Quell Fear of Ebola Spreading by Air Travel. <i>The New York Times</i> .
NYT, 29	Tavernise, S. (Aug 11, 2014). Ebola's Leap Into Nigeria Raises Risk of Upsurge. <i>The New York Times</i> .
NYT, 30	Pollack, A. (Aug 9, 2014). Ebola Drug Could Save a Few Lives. But Whose?. <i>The New York Times</i> .
NYT, 31	Gladstone, R. (Aug 7, 2014). Expert Panel to Consult on Ebola. <i>The New York Times</i> .
NYT, 32	Blinder, A. (Aug 6, 2014). Atlanta Hospital Admits Second American With Ebola. <i>The New York Times</i> .
NYT, 33	Blinder, A., & Grady, D. (Aug 3, 2014). American Doctor With Ebola Arrives in U.S. for Treatment. <i>The New York Times</i> .
NYT, 34	The Editorial Board. (Jun 9, 2014). Ebola Gets Worse in West Africa. <i>The New York Times</i> .
WSJ, 35	Vilensky, M., & West, M.G. (Oct 27, 2014). City News: Bellevue ICU Team Tackles Ebola Case. <i>The Wall Street Journal</i> .
WSJ, 36	Maloney, J., Hollander, S., & Adam., J. (Oct 25, 2014). New Yorkers Cope With the Arrival of Ebola --- Officials Retrace Patient's Movements. <i>The Wall Street Journal</i> .
WSJ, 37	Mann, T., & West, M.G. (Oct 25, 2014). Bellevue Was Ready to Go. <i>The Wall Street Journal</i> .
WSJ, 38	Mann, T. (Oct 24, 2014). Ebola Case Puts Focus on Bellevue. <i>The Wall Street Journal</i> .
WSJ, 39	Campoy, A. (Oct 23, 2014). The Ebola Battle: U.S. to Monitor Travelers from Virus-Stricken Countries. <i>The Wall Street Journal</i> .
WSJ, 40	Wonacott, P. (Oct 22, 2014). The Ebola Battle: Fearful Chinese Firms Rethink Africa. <i>The Wall Street Journal</i> .
WSJ, 41	Casey, M.J. (Oct 20, 2014). U.S. News --- THE OUTLOOK: Gauging Economic Fear Factor. <i>The Wall Street Journal</i> .
WSJ, 42	Gottlieb, S., & Tevi, T. (Oct 20, 2014). Ebola Isn't a Messaging Problem. <i>The Wall Street Journal</i> .
WSJ, 43	Loftus, P., & McKay, B. (Oct 18, 2014). Race Is On for Ebola Drug. <i>The Wall Street Journal</i> .
WSJ, 44	Beck, M., & McKay, B. (Oct 18, 2014). The Ebola Battle: CDC Readies a Revamp

	Of Its Ebola Guidelines. <i>The Wall Street Journal</i> .
WSJ, 45	Loftus, P., & McKay, B. (Oct 16, 2014). The Ebola Battle: Treatment Spotlight Back on Atlanta. <i>The Wall Street Journal</i> .
WSJ, 46	Anonymous. (Oct 16, 2014). The Ebola Battle: Dispatches. <i>The Wall Street Journal</i> .
WSJ, 47	Anonymous. (Oct 16, 2014). The Ebola Twilight of Public Institutions. <i>The Wall Street Journal</i> .
WSJ, 48	Morse, A. (Oct 15, 2014). The Ebola Battle: WHO Says Epidemic Is Gaining Momentum. <i>The Wall Street Journal</i> .
WSJ, 49	Michael, H.W. (Oct 15, 2014). City News: De Blasio Talks Security, Ebola In Washington. <i>The Wall Street Journal</i> .
WSJ, 50	Johnson, R. (Oct 11, 2014). The Ebola Battle: South America's First Case?. <i>The Wall Street Journal</i> .
WSJ, 51	Bustillo, M., Campoy, A., & McKay, B. (Oct 9, 2014). Ebola Patient Dies in Texas. <i>The Wall Street Journal</i> .
WSJ, 52	Brat, I., & Christopher, B. (Oct 9, 2014). The Ebola Battle: Public Outcry Can't Save Aide's Dog. <i>The Wall Street Journal</i> .
WSJ, 53	Geiger, F. (Oct 4, 2014). The Ebola Battle: Germany Flies Ugandan Doctor To Frankfurt for Medical Treatment. <i>The Wall Street Journal</i> .
WSJ, 54	Levitz, J. (Oct 3, 2014). The Ebola Battle: American Journalist Tests Positive for Ebola in Liberia. <i>The Wall Street Journal</i> .
WSJ, 55	McKay, B., & Hinshaw, D. (Oct 3, 2014). The Ebola Battle: Lack of Qualified Staff in Africa Hurts Effort. <i>The Wall Street Journal</i> .
WSJ, 56	Ostrower, J., & Carey, S. (Oct 2, 2014). U.S. News: Discovery of Case in U.S. Raises Concerns Over Disease's Impact on the Airline Industry. <i>The Wall Street Journal</i> .
WSJ, 57	Hinshaw, D., & McKay, B. (Sep 29, 2014). World News: U.S. Troops Battling Ebola Get Off to Slow Start. <i>The Wall Street Journal</i> .
WSJ, 58	Anonymous. (Sep 18, 2014). U.S. News: U.S. Watch. <i>The Wall Street Journal</i> .
WSJ, 59	Hinshaw, D. (Sep 2, 2014). World News: Makeshift Burials Hinder Battle on Ebola --- In Liberia, Fishermen Ferry the Dead to Unmarked Graves on an Island; Officials Say Many Victims of the Disease Go Uncounted. <i>The Wall Street Journal</i> .
WSJ, 60	Anonymous. (Aug 23, 2014). World News: World Watch. <i>The Wall Street Journal</i> .
WSJ, 61	Lipkin, W.I. (Aug 4, 2014). Ebola: How Worried Should We Be?. <i>The Wall Street Journal</i> .
DMN, 62	Bush, R. (2014, Oct 24). When you worry about the west, think of these names: Nina Pham, Amber Vinson and Kevin Vickers. <i>The Dallas Morning News</i> .
DMN, 63	Jacobson, S. (2014, Oct 24). Presbyterian hospital cites changes that could improve Ebola care elsewhere. <i>The Dallas Morning News</i> .
DMN, 64	Rajwani, N. (2014, Oct 25). UTA grad isolated at New Jersey hospital as part of Ebola quarantine. <i>The Dallas Morning News</i> .
DMN, 65	Wilonsky, R. (2014, Oct 31). Update: Mayor Rawlings, Judge Jenkins to join Nina Pham and her dog Bentley at Saturday morning's reunion. <i>The Dallas Morning News</i> .
DMN, 66	Mitchell, J. (2014, Oct 24). New York is better prepared to treat Ebola and Dallas is

	the reason. <i>The Dallas Morning News</i> .
DMN, 67	Hoppe, C. (2014, Oct 17). Perry asks president to put those exposed to Ebola on no-fly list. <i>The Dallas Morning News</i> .
DMN, 68	Wilonsky, R. (2014, Oct 22). Nina Pham's dog Bentley has tested negative for Ebola; still in quarantine at Hensley Field. <i>The Dallas Morning News</i> .
DMN, 69	Wilonsky, R. (2014, Oct 20). Starting today, Dallas Animal Services will begin testing Nina Pham's year-old dog Bentley for Ebola. <i>The Dallas Morning News</i> .
DMN, 70	Mitchell, J. (2014, Oct 14). Ebola costs: Just the tip of the economic, political iceberg. <i>The Dallas Morning News</i> .
DMN, 71	Tsiaperas, T. (2014, Oct 16). Parkland releases how-to video on putting on, taking off protective gear. <i>The Dallas Morning News</i> .
DMN, 72	J. Gillman, T. (2014, Oct 16). NIH's Dr. Fauci vows top notch care for nurse Pham. <i>The Dallas Morning News</i> .
DMN, 73	Maxon, T. (2014, Oct 15). Frontier Airlines puts out statement on Ebola-stricken nurse who flew on Cleveland-Dallas flight. <i>The Dallas Morning News</i> .
DMN, 74	J. Gillman, T. (2014, Oct 15). Obama confident the US won't see "serious outbreak" of Ebola. <i>The Dallas Morning News</i> .
DMN, 75	Grigsby, S. (2014, Oct 16). Time has come to quarantine Dallas Presbyterian workers. <i>The Dallas Morning News</i> .
DMN, 76	Drago, M. (2014, Oct 15). Ask the editor: Why we published the op/ed from Thomas Eric Duncan's family. <i>The Dallas Morning News</i> .
DMN, 77	Reports, S. (2014, Oct 13). Federal, state officials say they're hard at work caring for nurse with Ebola, investigating how she got it. <i>The Dallas Morning News</i> .
DMN, 78	Peterson, M. (2014, Oct 9). UPDATE: Blood test negative for Dallas deputy who fell ill after visiting Ebola patient's home. <i>The Dallas Morning News</i> .
DMN, 79	jmittchell. (2014, Oct 9). The lessons of Thomas Eric Duncan's death — bad choices and deadly consequences. <i>The Dallas Morning News</i> .
DMN, 80	Railey, K. (2014, Oct 2). Ebola patient unlikely to be deported or granted asylum. <i>The Dallas Morning News</i> .
DMN, 81	T. Garrett, R. (2014, Oct 7). People in hospital waiting room with Ebola patient weren't overlooked, Janek says. <i>The Dallas Morning News</i> .
DMN, 82	Jean, S. (2014, Oct 1). Airline stocks sink after first U.S. Ebola case confirmed in Dallas (Updated at 3:45 p.m.). <i>The Dallas Morning News</i> .
DMN, 83	Robinson-Jacobs, K. (2014, Oct 1). Will Dallas Ebola case hurt local hotels and restaurants?. <i>The Dallas Morning News</i> .
DMN, 84	Lindenberger, M. (2014, Sep 25). As Obama talks ebola to UN, memories of last year's journey to Sierra Leone underscore its vulnerability to disease. <i>The Dallas Morning News</i> .
ALJ, 85	Al Jazeera. WHO says East Asia at risk of Ebola. (Oct 10, 2014). <i>Al Jazeera</i> .
ALJ, 86	Al Jazeera. WHO says no signs spread of Ebola is slowing. (Oct 9, 2014). <i>Al Jazeera</i> .
ALJ, 87	Al Jazeera. Sierra Leone Ebola 'spreading like wildfire'. (Oct 3, 2014). <i>Al Jazeera</i> .
ALJ, 88	Al Jazeera. Liberia fears Ebola crisis will spark war. (Sept 24, 2014). <i>Al Jazeera</i> .
ALJ, 89	Al Jazeera. Ebola 'contained in Senegal and Nigeria'. (Sept 23, 2014). <i>Al Jazeera</i> .
ALJ, 90	Al Jazeera. Deadly attack in Guinea on Ebola team. (Sept 19, 2014). <i>Al Jazeera</i> .

ALJ, 91	Al Jazeera. African healthcare laid bare by Ebola epidemic. (Sept 13, 2014). <i>Al Jazeera</i> .
ALJ, 92	Al Jazeera. New clinic key to Sierra Leone's Ebola fight. (Sept 12, 2014). <i>Al Jazeera</i> .
ALJ, 93	Al Jazeera. Ebola: What hope for a cure?. (Sept 4, 2014). <i>Al Jazeera</i> .
ALJ, 94	Al Jazeera. Ebola: Senegal confirms first case of virus. (Aug 30, 2014). <i>Al Jazeera</i> .
ALJ, 95	Al Jazeera. Ebola outbreak has killed 120 health workers. (Aug 26, 2014). <i>Al Jazeera</i> .
ALJ, 96	Al Jazeera. Ebola nations urged to screen all travellers. (Aug 19, 2014). <i>Al Jazeera</i> .
ALJ, 97	Al Jazeera. Ebola epidemic to take six months to control. (Aug 16, 2014). <i>Al Jazeera</i> .
ALJ, 98	Al Jazeera. Kenya bars travellers from Ebola-hit nations. (Aug 16, 2014). <i>Al Jazeera</i> .
ALJ, 99	Al Jazeera. Ebola declared an 'international emergency'. (Aug 8, 2014). <i>Al Jazeera</i> .
ALJ, 100	Al Jazeera. S Korea invitations withdrawn on Ebola fears. (Aug 4, 2014). <i>Al Jazeera</i> .
ALJ, 101	Al Jazeera. Seven new Ebola deaths reported in Liberia. (Jun 18, 2014). <i>Al Jazeera</i> .

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