Constructing Murder

A Framing Analysis of Mass Shootings in American News Reports

A capstone research project submitted to the faculty of

San Francisco State University

in partial fulfillment of

the requirements for

the degree

Master of Arts in

English: (Linguistics)

Jamie Rose Kitchel

May 9, 2020

0. Abstract

This study examines the reporting of four American mass shooting events between 2016 and 2019 in two American newspapers, The Wall Street Journal and The New York Times, and examined the differences between articles relating to events perpetrated by White shooters and events perpetrated by non-White shooters using Critical Discourse Analysis. Previous literature states that Americans have a racialized view of crime (Barberi, Ahlin, Hummer,& Gabbidon 2018), and that shootings are often reported associated with mental illness (McGinty, Webster, Jarlenski, & Colleen, 2014). This study aimed to examine the frequency of associations with mental illness with the shooting events within the newspaper articles to determine if race determined whether mental illness was discussed in related articles. AntConc software was used to search for frequencies of mental-illness related items and their collocates. The study concluded that articles related to events perpetuated by White shooters had overall higher frequencies of terms relating to mental illness, while articles related to events perpetuated by non-White shooters had lower overall frequencies of these same terms. However, even though there was a clear discrepancy in the numbers of mental-health related terms between the two datasets, collocates and contexts for the terms do not show a conclusive difference in mental health discussions between White and non-White shooter events.

1.0 Introduction

American news networks have reported shooting after shooting, death after death, as "thoughts and prayers" come through the airwaves and the public learns that simple actions like working in an office building, going to the store, and attending local events can turn deadly. In America, mass shootings happen frequently, reports of them are routine, and the rest of the world is left to

watch. The Gun Violence Archive's five year report documented well over a thousand mass shootings in the United States over the course of 2014-2018, and in 2019 alone there were over four hundred mass shootings (*Gun Violence Archive*).

As these reports consistently trickle into news outlets, the stories are investigated, organized, and delivered to American listeners, viewers, and readers. However, during the course of trying to provide reason for these events the discussion often turns to mental health: "In response [to shooting events], many politicians and pundits offer potential solutions, often aimed at addressing the three major proffered causal factors of mass shootings – guns, mental health, and violent media" (Schildkraut & Elsass 2016a; Schildkraut & Muschert 2013). Recent shootings where the shooters are suspected to have mental illnesses have received a spike in attention in the United States (McGinty, Webster, & Barry 2013; McGinty, et. al 2014), a association that holds potentially drastic consequences as "nearly 20% (43 million) of Americans are coping or diagnosed with a mental illness, and 4% (10 million) have a severe mental illness" *(National Alliance on Mental Illness,* 2015). This concept of mentally ill individuals perpetuating violence on this level is unfounded- "Among those diagnosed with severe mental illness, approximately 3–5% engage in violent behavior (*National Alliance on Mental Illness* 2015), but despite such low rates, the public belief that mental illness is associated with violence is pervasive (see Jorm & Reavley, 2014)" (Yelderman et.al. 2019), contributes negatively to the perception of individuals living with mental illnesses (Yelderman et. al. 2019, Wilson, Ballman, and Bucze 2016). These negative views towards individuals living with mental illnesses can "increase risk for symptom relapse, hospital admissions, and suicidality" (Eagles, Carson, Begg, & Naji, 2003; Penn, Kohlmaier, & Corrigan, 2000).

In addition to this association of mental illness and violence, there is another, much more historical association of crime-the association of non-White races and violence: "Not only are black Americans perceived as violent, dangerous, and subhuman (Goff, Eberhardt, Williams, & Jackson 2008), violent crimes are more likely to be remembered as having been committed by black people when they were not (Oliver and Fonash 2002)" (Saperstein, Penner & Kizer 2014). Racialization of crime runs deep in American culture, and this constant exposure to racialized violent stereotypes may contribute to distorted views of crime (Barberi et.al. 2018).

This study takes society's perceived correlations of race, mental illness, and crime, and examines how they are represented in reports of mass shootings-and more specifically, if all three correlations are found together. The coexistence of these variables has interdisciplinary significance, and can point to possible disparities in the perception of crime and mental health issues across different races. The study was begun to determine if mental health was discussed more frequently in news stories related to shooting events perpetuated by White shooters as opposed to non-White shooters. This study defined discussions of mental health as discourse including technical terms used by mental health professionals (e.g., *psychotic*), terms that could be used by both non-professionals and professionals (e.g., *depressed*), or terms that were primarily non-professional, (e.g., *scary*), building from a British study on adolescent terms for mentally ill individuals (Rose, Thornikroft, Pinfold, & Kassam 2007). The terms *mental illness* and *mental health* also signal some degree of discussion of mental health and were also included. The results of this study did not suggest any conclusive discrepancies between the reporting of shootings by White and non-White shooters past the freqency of wordlist items, but the results

do suggest that there is more possible work to be done regarding mass shootings and the associated discussion of mental illness and mental health.

2.0 Literature Review

2.1 Brief overview of Critical Discourse Analysis (CDA)

The theoretical background for this paper was based on Critical Discourse Analysis (CDA), a form of linguistic discourse analysis which focuses on power dynamics and ideology within discourses (among other features) (Van Djik 1995). Traditional discourse analysis focuses on the analysis of communication between entities, with the understanding that individuals use their previous understanding and knowledge to understand, create, and interpret discourse (Johnstone 2018). CDA builds on traditional discourse analysis by, among other features, focusing on "social problems", such as disparities between genders, races, or power structures, and has the potential to examine discourse at every level (Van Djik 1995). CDA also maintains opposition to "the powerful and the elites", focuses on building solidarity between oppressed groups, and analyzes forms of discourse which are manufactured to influence others to the benefit of those that hold power (Van Djik 1995). CDA maintains that these discourses may influence individuals subliminally, influencing both thoughts and actions:

> "CDA specifically focuses on the strategies of manipulation, legitimation, the manufacture of consent and other discursive ways to influence the minds (and indirectly the actions) of people in the interest of the powerful." (Van Djik 1995)

CDA literature also maintains that reality may be constructed through the "process" of communicating information (Chouliaraki 2000), which would imply that these discursive influences may have effects reaching outside of the individual sphere.

2.2 CDA and News Media

CDA maintains that individuals who are able to influence others to think or to act a certain way have "power"-which can be defined as holding a "power base" of financial resources, knowledge, social status, or even other forms of communication or discourse (Van Djik 2001). Individuals who hold this "power" may set agendas and have control over all levels of the discourses in question (Van Djik 1995). Journalists (and other members of the media) can be viewed as "powerful" through a CDA lens, as they have a great deal more knowledge of the subjects they are delivering than the individuals who are receiving the information, and are defined as holding "control over mass media discourse" (Van Djik 1995). Van Djik (2001) specifically cites journalists as holding a "power base" of knowledge again in a later paper: "...whereas the more or less persuasive power of parents, professors, or journalists may be based on knowledge, information, or authority" (355). The concept of influence becomes dangerous when topics that include imbalance of power- "sexism, racism, colonialism, and other forms of social inequality" (Van Djik 1995)- those who hold the power can possible turn the discourse to influence towards their own opinion (Van Djik 1995). In the case of this study, where race is a variable, the most likely form of social inequality to be present would be racial disparity-White individuals controlling discourse surrounding non-White individuals.

This study is composed of analyzing textual data. CDA maintains that texts can serve as "multifunctional": "CDA not only views the text as intertextual but maintains that linguistic processes in a text encode multiple social functions" (Chouliaraki 2000): "The multifunctional view of language makes it possible to investigate how choices in the lexico-grammar simultaneously constitute representations, social relations and social identities in the text" (98). This idea of multifunctionality follows the concept of CDA allowing for multilevel analysis of

discourses (Van Djik 1995). Bednarek and Caple (2014) specifically address the concept of discourse shaping, discussing ideological values known as "news values": "values that exist in and are constructed through discourse" (135). These "news values" determine newsworthiness of events and situations, and help to determine what stories are reported (Bednarek and Caple 2014). Bednarek and Caple stress how news values are "existing in and constructed through discourse itself" (137). These news values are deemed to be "culturally and socially constructed" (Fowler 1991), are highly ideological, reflecting societal views and priorities (Bell 1991), and help to reflect on or create precedent- an "ideology" for what is considered "news" (Cotter 2010). Since these "news values" are deemed to be highly ideological, they could be considered open to being influenced by biases or views which benefit the individuals which determine them, regardless of truthfulness.

Overall, the ideological nature of news values, in addition to the concept of power disparity within discourse, suggests that those in power are able to control not only what readers are able to see, but how readers interpret the information provided.

2.3 Framing

The ideological nature of choosing what news is reported is described as "framing" in media studies, and refers to a how interlocutors rely on omitting or including certain information and rely on a common base of knowledge to elicit a response or convey information to the other party, whether a listener or a reader (Wodemaghen 2014; McCombs and Ghanem 2001; Cassidy, LaFrance, and Babin 2018; Pan and Kosicki 1993). Frames used in reporting mass shootings can influence the public understanding of these events, in addition to being a "platform" for political response or involvement (Elsass, Schildkraut, & Stafford 2014; Schildkraut, Elsass, & Stafford

2015). Framing may also be used to promote certain issues as socially important, which may lead

to issues being addressed within public policy, and journalists may choose to frame their stories

in ways that draw attention (Wondemaghen 2014). Framing in news reporting uses several

different devices, including thematic elements, the structure of the sentences used within the

reports, and the structure of the script used to report (Pan and Kosicki 1993), and relies on the

audience's exists concepts of the subject presented and "highlighting" certain pieces of

information (Wondemaghen 2014). Framing may also be used to promote certain issues as

socially important, which may lead to issues being addressed within public policy, and

journalists may choose to frame their stories in ways that draw attention (Wondemaghen 2014).

Both sides of stories or issues discussed are frequently included in media coverage, and different

frames may evoke different responses to the information communicated (Schnell and Callaghan

2005).

The meaning within a frame does not have a direct "one-to-one correspondance" with

any particular term or item within the information being relayed, but instead relies on the readers

and their "active interpretations" of the information (Pan and Kosicki 1993). These

interpretations of the information relayed, the "individual-specific components", are in part

created by the different experiences and values held by the readers: "the shared component

results from the common structural and lexical features that they process and the predictable

functions between these features and the meanings that are most likely derived" (Pan and

Kosicki 1993).

Lexical devices, known as "designators", can help categorize information by the reader,

are highly ideological in nature, and can " [reveal]cognitive categorizations on the part of

newsmakers" (Pan and Kosicki 1993). Pan and Kosicki use the example of using the designator "Iraqi dictator" to refer to Saddam Hussein in a news report: " by using 'Iraqi dictator,' a news report places Saddam Hussein in the same category with Hitler, Noriega, Stalin, and other generally hated men in American culture" (62). Choosing to use a particular designator in a discourse can signal certain frames being evoked:. "Choosing a particular designator, then, is a clear and sometimes powerful cue signifying an underlying frame" (Pan and Kosicki 1993). The definitions of the players and situations being framed in each narrative are important, as these details will construct the frames used within these discourses (Strydom 2000). Those reporting events or information may choose to remove or include certain information, which results in the possibility of the same information being reported differently (Chyi and McCombs 2004).

"Framing" can be considered a further application of CDA views, suggesting reality construction through reader perception. "Frames" can be analyzed within the context of power disparities and power bases, as journalists control what others are able to read in the news (Van Djik 1995), and could use these frames to advance views beneficial to them.

2.4 Mass Shootings, Mental Illness, and Framing

Most of what the American public learns about shootings (and mental illness in general) comes from media, and individuals living with mental illness are often portrayed as having unstable traits (Coverdale et al., 2002; McGinty, Kennedy-Hendricks, Chosky, and Barry 2016), and suspected correlations of mental illness and mass shootings are considered "newsworthy": "Mass shootings have been identified as incidents that lead to noticeable spikes in news stories about mental illness and gun violence" (McGinty et.al. 2014). Stückemann (2018) also indicated that when gun violence was reported, a frame using mentally ill individuals was more commonly

used than a frame which discussed guns and dangerous weapons (McGinty, Webster, Jarlenski, & Colleen 2014). Jashinsky, Magnusson, Hanson, & Barnes (2017), however, found that consumers of news media were more likely to blame the government for mass shootings than individual persons, and that these consumers underestimated the broader scope of gun violence.

From a CDA perspective, the usage of the mental illness frame would be considered a "news value", as the journalists involved are choosing to portray the correlations (whether real or perceived) between mental illness and mass shootings as "newsworthy" (Bednarek and Caple 2014). The predominant use of this frame can also lead to the question of whether individuals are having their opinions of mentally ill individuals possibly influenced by these news stories, as previous literature has shown that individuals with mental illness are seen as possessing unfavorable emotional traits and unstable behaviors (Angermeyer & Dietrich 2006; Barry, McGinty, Vernick, & Webster 2013). This association between gun violence and mental illness-whether real or perceived by readers and reporters-also leads to increased stigma towards individuals living with mental illness, which can lead to increased difficulties in securing care and "increase risk for symptom relapse, hospital admissions, and suicidality" (Angermeyer & Dietrich 2006; Barry, McGinty et. al. 2013; Corrigan, Kosyluk, Konadu, & Park 2014; Eagles, Carson, Begg, & Naji 2003; Penn, Kohlmaier, & Corrigan 2000).

Whether or not this mental illness frame is used predominantly for stories related to mass shootings with White shooters is important. Discussing mental illness in stories pertaining to White individuals only could possibly influence individuals to correlate mental illness and Whiteness, and exclude other races from the discussion, contributing to the severely lacking amount of mental health support for non-White individuals: "Black and Latino children and

young adults receive markedly less outpatient mental health and substance abuse care than their non-minority counterparts, differences that persisted in analyses that controlled for other demographic differences, mental health impairment, income, and health insurance", and the same study found that over a year White children had roughly twice as many visits to a mental health care professional as their Hispanic and Black peers (Marrast, Himmelstein, and Woolhandler 2016). Reports by the U.S. Department of Health and Human Services found "Racial and ethnic minorities have less access to mental health services than do whites, are less likely to receive needed care and are more likely to receive poor quality care when treated" (McGuire and Miranda 2008). While these previous findings are not specifically correlated with the use of the mental health frame in reporting, consistent promotion of mental health as a subject relating to White individuals could potentially influence readers to perceive mental illness as a predominately White issue, and could lead to poorer standards of mental health care for non-White individuals.

3.0 Study

3.1 Data

The shooting events used in this study were selected based on the National Gun Archive's records from 2016-2019, with the intent of including more recent shootings in the dataset. The possible dates for the shootings ranged 1/1/16 to 12/31/19. Following the previous methodology used in Demszky, Garg, Voight, Zou, Gentzkow, Shapiro, and Jurafsky (2019)'s study of discussions of mass shootings on Twitter, the shootings were selected with a criteria of more than (or equal to) 10 victims who died. The shootings were controlled for the number of deaths with the consideration that shooting events with more deaths would result in higher levels

of reporting and more attention from news outlets. Details for the events that met this criteria, the dates of the shootings, and the numbers of victims can be seen in the following table:

Date	Location	Number of Dead	Number of Injured
8/4/19	Dayton, Ohio	10	17
8/3/19	El Paso, Texas	22	24
5/31/19	Virg.Beach, VA	13	4
11/7/18	Thousand Oaks CA	13	2
10/27/18	Pittsburgh PA	11	7
5/18/18	Santa Fe TX	10	13
2/14/18	Pompano Beach FL	17	17
11/5/17	Sutherland Springs TX	27	20
10/1/17	Las Vegas NV	59	441
6/12/16	Orlando FL	50	53

Mass shootings with 10 or more killed victims, 2016-2019. Table 1.

The number of injuries within each shooting event and the locations of the shootings were not controlled variables in this study.

The ethnicity of the shooters were determined through Google queries of the shooting event's shooter name, and his ethnicity and reviewing the search query results. The ethnicity of the shooters were coded as W (WHITE) or NW (NON-WHITE). The ethnicity search results are illustrated below in the following table:

Ethnicity of Dataset Shooters 2016-2019
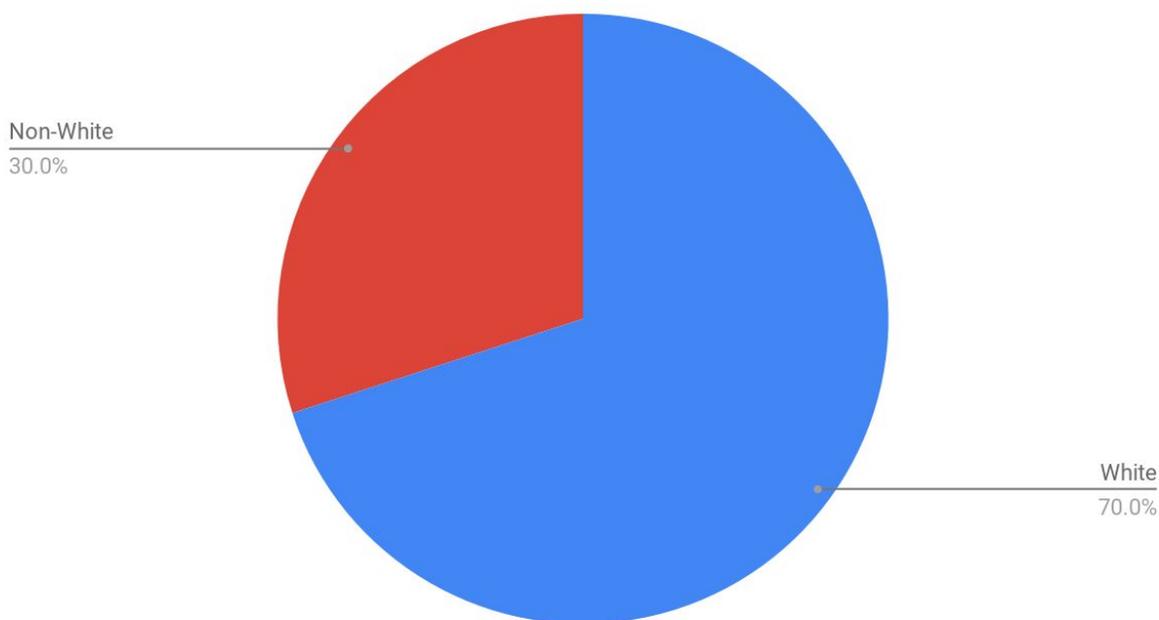
Ethnicity of shooters in Selected Shooters. Figure 1.

Two different sources were used for this study, The Wall Street Journal and the New

York Times. These two outlets were chosen with the consideration of which outlets would be

widely circulated and available to the American public, and with the intention of having both

more liberal and conservative viewpoints present in the data. This study did not control for

different editions or versions (such as international versions) of the publications, however,

"online" versions of these publications were not included in this study, and stories reported more

completely online than in the print versions were not included. The corpus consisted of two

hundred articles, with twenty-five articles being chosen for each shooting event from each

publication. Only articles with full-text were used for the corpus, with nothing outside of the

"full text" being included in the data (titles, author credits, and so forth). The first twenty-five

articles from each keyword search used were included in the corpus, no matter what the text of

the articles was about, reasoning that if an individual were looking for articles about these

shootings and used a similar keyword search, the articles included in the dataset would be the

articles available to the reader.

Due to the predominant Whiteness of the shooters within this set of shootings, the news

articles were randomized through the random.choice() function in Python 2.0 and were divided

into Non-white and White groups, with two shooting events from each group were selected in

order to create a balanced corpus. Code for this randomization and selection of events can be

found in Appendix A. The events randomly selected with non-white shooters were Virginia

Beach and Orlando (the PULSE Nightclub shooting). The events randomly selected with White

shooters were the Pompano Beach (the Marjory Stoneman Douglas shooting) and Santa Fe. The

details for these specific shooting events can be seen in the following chart:

Date	Location	# Injured	# Dead	Ethnicity of Shooter
2/14/18	Pompano Beach, FL	17	17	W
6/12/16	Orlando, FL	53	50	NW
5/31/19	Virg.Beach, VA	4	13	NW
5/18/18	Santa Fe, TX	13	10	W

Selected Events and Details Table 2.

The news articles for the shooting events were selected through the ProQuest database..

The news articles were selected by searching within the database within the chosen periodicals

with the location of the event and the word "shooting". In several cases the query needed to be

adjusted in order to find enough material for this study: the Pompano Beach shooting is more

commonly known as the shooting at Marjory Stoneman Douglas High School, or referenced by another location name, "Parkland". Similarly, the shooting in Orlando, Florida is more commonly known as the PULSE Nightclub shooting.

3.2 Methodology

The articles from each shooting were divided into two text documents, one for white shooters and one for non-white shooters. Both articles from the New York Times and the Wall Street Journal were included within each of the datasets, with twenty-five articles from keyword searches for each shooting event. Both the White and the non-White datasets were then analyzed through AntConc (3.5.8) using the concordance function and the word count function. The data was divided into two datasets in order to effectively compare the language use between the articles related to shootings with White shooters and articles related to shootings with non-White shooters.

Previous CDA literature suggests an inherent abuse of "discursive power" (Van Djik 2006) through power imbalance, and as stated before, journalists hold power over non-journalists (Van Djik 2001). Framing literature builds on this concept of journalistic influence, discussing how choosing to use certain lexical items in discourse can influence how concepts are perceived and interpreted (Pan and Kosicki 1993). Based on this background, this study posits that measuring lexical items which would trigger frames related to mental illness within the two different databases would be a straightforward way to determine discrepancies in reporting.

The words searched for within the dataset were taken from a wordlist used by Rose et. al. (2007) in a study regarding British youth, which examined the relationship between treatment avoidance and mental health stigma (1). In this study, young people were asked to fill out a

questionnaire, which asked, 'What sorts of words or phrases might you use to describe someone

who experiences mental health problems?' (2). Many of the lexical items from this study could

be considered slang, or otherwise informal terms which would not appear in most professional

journalism, so for this study's purposes the wordlist was edited and revised. The revised list

contained words ("designators"), which would relate either directly to the shooter's mental state,

or would fit into a frame discussing mental health as a whole. After compiling the corpus and

reviewing the contents, the words "mental health", "mental illness", and "bullied" were added to

the wordlist to allow for more general mentions of mental health and mental illness to be

controlled for, and compare usage of the term "bullied" (which was noted in the White dataset

during corpus compilation). The original wordlist from Rose et. al (2007) can be seen in

Appendix B.

<u>Concordance Wordlist (based on Rose et. al. 2007)</u>

Disturbed	Depressed	Distressed
Confused	Different	Stressed
Psychotic	Odd	Isolated
Spastic	Problem	Sad
Crazy	Scary	Mental Illness
Depression	Ill	Bullied
Disabled	Loneliness	Mental Health
Unpredictable	Psychiatric	Insane
Stress	Mental	Violent
Schizophrenia	Demanding	Weird
Embarrassed		

The datasets were then analyzed through AntConc for the frequencies of these words within the

articles, as well as which lexical items were concordant with each wordlist item.

3.3 Results

Both the non-White shooter dataset and the White dataset consisted of fifty articles from the New York Times, and fifty articles from the Wall Street journal.The results for word count found in each dataset can be seen in the table below:

Lexical item	*n* Non-White Corpus	*n* White Corpus
Mental	9	53
Mental Health	8	45
Violent	14	32
Problem	17	27
Different	34	20
Bullied	0	14
Mental Illness	0	7
Ill	4	6
Crazy	3	4
Confused	0	5
Stress	13	4
Sad	4	4
Disturbed	2	4
Depression	1	4
Depressed	0	4
Scary	0	4
Disabled	0	1
Isolated	1	3
Weird	1	3
Demanding	2	2
Odd	2	2
Psychiatric	3	1
Psychotic	1	1
Stressed	0	1
Distressed	1	2
Spastic	0	0
Unpredictable	1	0
Insane	0	0
Loneliness	0	0
Schizophrenia	0	0
Embarrassed	1	0

Resulting Frequencies of Wordlist Items Across Datasets Table 3.

While there are a handful of words within the non-White dataset which correlate directly to frames which suggest mental illness, their overall count within the dataset was low. The

highest count words, "different" and "problem" are words which could ostensibly be used in frames that suggest concepts other than mental illness, and could certainly be used to discuss concepts besides the shootings. Most of the frequent terms in the White dataset occurred at much different frequencies than within the non-White database.

In order to gain a clearer picture of the context of these wordlist terms, collocates (words found in close proximity to the original words or terms) for each wordlist item were also searched. Collocates are important within this study due to contextual meaning-many of these words can be used to discuss concepts or evoke frames aside from discussions of mental states or mental health. The window for the collocates was set to 1L/1R (One collocate to the left or the right of the original wordlist item).

The unique collocates for each of the wordlist items within the corpuses is iterated below. Following the original Rose et.al. study, the wordlist items can be divided into "superordinate categories": *popular derogatory names, negative emotional state, physical illness or learning disability, psychiatric categories, violence,* and *loneliness* (3-4). This study also added another category, *negative attributes*, and while the original study's categories did not contain all words from the terms collected, this study categorized all terms found on the wordlist used, using Rose et. al.'s categorization as a guideline (4). The wordlist items and their collocates are divided into the respective categories below[1]:

Popular derogatory terms	*Collocates (W)*	*Collocates (NW)*
Crazy s	watching, absolutely, nothing	walk, stop, ever y, thing,
Weird	seeing, so, s	buildings, many

---

[1] Function words have been removed from this table

Scary	cloi, less, parkland, s	No collocates found
Odd	point	emotion, year
Insane	No collocates found	No collocates found

Negative Emotional State	Collocates (W)	Collocates (NW)
Disturbed	mentally, though, man, young	deeply
Confused	alone, students	No collocates found
Depression	terrible, thoughts, mr	(function words)
Depressed	alienated, kid, seemed, get,	No collocates found
Ill	mundelein, mentally, advised, other	equipped, aurora, last, not
Stress	traumatic, disorder	blanks, traumatic, disorder, extreme, firing, real, officer, during, control, shooting
Stressed	(function words)	No collocates found
Distressed	readers, stronger, saturday	emotional
Embarrassed	No collocates found	elan
Sad	very, too, something	story, so
Bullied	nearly, without, children, few, being, according, because, so, been, t	No collocates found

Physical Illness or Learning Disability	Collocates (W)	Collocates (NW)
Disabled	accessible	No collocates found
Spastic	No collocates found	No collocates found

Psychiatric Categories	Collocates (W)	Collocates (NW)
Schizophrenia	No collocates found	No collocates found
Depression	terrible, thoughts, mr	while
Psychiatric	drugs	illness, capita, bed, treatment, need, other
Psychotic	person	break
Mental Health	expands, health, bolster, improving, comprehensive, address,increasing, require, include, better, changes, national, children, students, have	health, connection, another, s
Mental Illness	illness, confronting, control	No collocates found
Mental	hopscotch, expands,illness, health, bolster, improving,confronting,comprehensive, address, increasing, require, include, better, changes, national, children, control, students	defective, health, connection,another, s

---

Negative Attributes	Collocates (W)	Collocates (NW)
Demanding	readers, stronger, saturday	(function words)
Unpredictable	No collocates found	very
Different	trajectory, tongues, parliamentary, nationalities, astonishing, environment, fox, bottom, instagram, places, party, very, groups, used, young, here, much, if, schools, fe, people, mr	livelihood, interpretation, dynamic, totally, scenario, themed, forms, entirely, disclosure, color, approaches,locations, type, types,solutions, programs,circumstances,numbers, light, levels,position, reports,view,takes,guys,read, semiautomatic, far,schools,ways, middle, passed,under,very,bills,days, friday, part,violence, free, from, many, had

Problem	preventable, real, bullying, while, because, says, over, many, there, one, students, but, gun	users, societal, sport, only, no, one, gun, said

Loneliness	*Collocates (W)*	*Collocates (NW)*
Loneliness	No collocates found	No collocates found
Isolated	although, area	case

Violence	*Collocates (W)*	*Collocates (NW)*
violent	Inherently, entertainment, committing, movies,displayed, crimes, crime, potentially, individuals, handle, behavior, video, activities, playing, commit, communities, become, toward, led, events, played, game, act, calls, attack, young, million, another, then, if, first, shootings, other, some	visual, episodes, dire, altercation, prosecuting, rhetoric, extremism, racism, behavior, criminals, future, deaths, prevent, attacks, crime, death, where, just, other

Superordinate Categories of Terms. Table 4

3.4 Discussion

3.4.1 Overall Patterns

The most striking difference in these two datasets is the overall count of the wordlist items- 122 overall instances of wordlist items (counting all instances of every term on the wordlist) were present in the non-White dataset, while 253 overall instances of wordlist items (counting all instances of every term on the wordlist) were present in the White dataset. Based on just the count of the wordlist items alone, it would appear that there is more discourse (and the possibility of more frames) regarding and evoking mental illness in the White dataset than the non-White dataset.

3.4.2 More General Terms

The general terms *mental health*, *mental illness*, and *mental* have the greatest possibility of evoking a frame related to mental health, and would be the most straightforward indicators of mental health related discourse. Within the White shooter dataset, these terms appear a total of 105 times (*mental* n=53, *mental health* n= 45, and *mental illness* n= 7), while these same terms appear a total of 17 times in the non-White shooter dataset (*mental* n=9, *mental health* n=8). The usage of these terms would suggest that these articles are using frames related to mentally ill individuals, following previous literature stating mental illness frames are found more frequently in reports of gun violence than frames related to weapons (McGinty, Webster, Jarlenski, & Colleen 2014). However, the disparity of usage could suggest that these frames are being more commonly evoked in articles related to shootings by White shooters.

The frames suggested by the collocate terms for *mental*, *mental health*, and *mental illness* in the White shooter dataset suggest that mental health requires attention and improving, concepts that are not visited by the collative terms surrounding *mental* and *mental health* in the non-White corpus (it is worth noting that these terms are the first and second most frequent wordlist items in the White dataset and fifth and sixth most frequent in the non-White dataset). *Mental illness* is not found in the non-White dataset. Some of the collocates for *mental* within the White corpus suggest improvement, entirety, and involvement, and have the inclusion of words related to young people, as well as evoking the connection to health:

Terms related to *improvement:* expands, bolster, improving, increasing, better, changes

Terms related to *young people*: children, students

Terms related to *involvement*: confronting, address, control, require

Terms related to *entirety:* comprehensive, include

Terms related to health: illness, health

Some terms used in the non-White corpus, however, suggest negative sentiment and connection in addition to evoking the connection to health:

Terms related to *negative sentiment*: defective

Terms related to *connection*: connection

Terms related to *health*: health

Other lexical items: another,, s

The differences between the collocates in the two datasets suggests that articles related to White shooters contain more frames related to improving mental health or expanding existing mental health. The inclusion of collocates which discuss younger people may be present due to both events in the White dataset taking place in high schools, with young shooters-younger participants in these shooting events may also account for the lexical terms related to involvement and improvement. Concordance sentences from the White corpus suggest that the mental illness frames largely evoke the concept of mental illness being a factor of the shootings, as well as something that could be improved or addressed to prevent future incidents. Several times mental health discourse was present along with gun control discourse.

The collocates within the non-White corpus suggest that the mental health frames in this dataset are lacking the same sentiments as the White corpus-and missing the same focus on improvement and prevention. Mental health is still framed as a factor in this dataset, but it does not seem to be discussed as frequently in the White corpus. Concordance sentences in the non-White dataset support the idea that while a mental health frame is present, it does not contain the same values of entirety, involvement, or improvement like the frames in the White

datebase. The mental illness frame in the non-White corpus does not suggest connection with younger individuals, unlike the frames in the White corpus.

3.4.3 Popular Derogatory Terms

Words from the Popular Derogatory Terms had low counts across both datasets. This set included the terms *crazy* (White n=4, non-White=3)*, weird* (White n=3, non-White n=1)*, scary* (White n=4, non-White n=0)*, odd* (White n=2, non-White n=2), and *insane* (White n=0, non-White n=0)*.* This is most likely due to the articles within both datasets coming from professional newspapers, as professional publications generally do not include slang terms within their reporting. These terms would also be considered non-clinical if they were used to discuss the mental state of an individual. The collative terms for the derogatory terms in the non-White corpus have no clear pattern. There are two possible patterns within the concordance data for these terms for the White corpus-terms related to *perception* and terms related to *specific objects.*

Terms related to *perception*: seeing, watching

Terms related to *specific objects*: cloi (proper noun), parkland (proper noun)

These possible patterns suggest a possible connection between these types of derogatory terms and personal lived experience of shooting events. There are also several concordance sentence showing "crazy" being used to refer to shooters or the shooting situations:

1. *"Having to face an armed individual with bad intentions is every person's worst nightmare. You can't stop crazy, you can only respond to it," said a brochure for the workshop published by the local ABC News affiliate." (NW)*
(article associated with the Virginia Beach shooting)

In addition, there is another sentence in the non-White corpus referring to the percieved outlandishness of gun control legislation:

2. *"Every crazy thing that anyone has said would make us safe is on the agenda in Virginia,..."*

While these are relatively small data sources within both corpuses (and account for a very small amount of overall wordlist items present in both datasets, they could possibly indicate a tendency to frame shooting events or shooters as "crazy", much more substantial data would be needed to substantiate this claim.

3.4.4 Negative Emotional State

Wordlist items from the *Negative Emotional State* category were more plentiful within the corpus, with a general pattern of being more plentiful in the White dataset than in the non-White dataset (with the exception of *stress*, which was more frequent in the non-White dataset.

Frequencies for Negative Emotional State Wordlist Items

Disturbed	(NW) n=2	(W) n=4
Confused	(NW) n=0	(W) n=5
Depression	(NW) n=1	(W) n=4
Depressed	(NW) n = 0	(W) n=4
Ill	(NW) n= 4	(W)=6
Stress	(NW) n=13	(W) n=4
Stressed	(NW) n=0	(W) n=1
Distressed	(NW) n=1	(W) n=2
Embarrassed	(NW) n=1	(W) n=0
Sad	(NW) n=4	(W) n=4
Bullied	(NW) n=0	(W) n= 14

Frequencies for negative emotional state wordlist items. Table 5.

The patterns of collocates for this category of wordlist items are more clear-cut than the previous category of derogatory terms in both the White dataset and the non-White dataset, most likely due to more items being present across databases. The collocates for the White dataset fall into two main patterns: terms related to *younger individuals*, and terms related to *mental states*.

Terms related to *younger individuals*: young, students, kid, children
Terms related to *mental states*: mentally, thoughts, alienated, traumatic, disorder

By contrast, the collocates for negative emotional states from the non-White database have a similar pattern, referencing mental states, but having another pattern of terms related to *violence:*

> Terms related to *mental states*: traumatic, disorder, emotional
> Terms related to *violence*: blanks, firing, real, shooting (collocates also included *officer*, which may argue may be associated with violence)

The nature of the articles involved may have been involved in the type of collocates involved- at least one article included in the non-White dataset which detailed the ongoing mental health issues of the police offers involved in the PULSE (Orlando) shooting, which could account for the mental state terms, and both White shootings involved high schools, which may account for the collocates related to the younger individuals.

An interesting discrepancy between the two databases is the absence of the term *bullied* in the non-White corpus-a term which the concordance data shows to be mostly related to the shooters themselves:

> 3. *"...allegations have surfaced that the shooter was bullied, but whether there is a clear link between the two issues is the subject of contention."*

This may once again be a result of the young age of the White shooters, as bullying is primarily a problem for younger individuals, but the inclusion of bullying into discourse surrounding the shooters adds an undertone of vulnerability to them, which is not necessarily lent to the non-White shooters in this corpus. If this study were to be repeated, the inclusion of a wider range of shooters of various ages could show the more frequent use of *bullied* in articles related to young White shooters, but this corpus is not large enough or varied enough to draw strong conclusions about the use of this wordlist item.

3.4.5 Physical Illness or Learning Disability

There was only one instance of *Physical Illness or Learning Disability* category items, *disabled*, which was used in an article discussing aftermath of the Santa Fe shooting:

4. *"The insurance hasn't paid for disabled-accessible modifications to her home,..."*

A larger corpus with more shooting events included may yield significant patterns of collocates or be shown to evoke significant frames which could be analyzed through CDA, but this category of wordlist items has no significant patterns and evokes no significant frames within this study.

3.4.6 Psychiatric Categories

The *Psychiatric Categories* items range from high count to non-existence across the two datasets. The frames evoked and collocate patterns for *mental health, mental illness,* and *mental* are discussed at the beginning of this section due to their generality. *Schizophrenia* was not found within either dataset, and *psychotic* had even occurrences within each dataset, with n=1 in each dataset. *Depression* was more prevalent in the White corpus, while *psychiatric* was more prevalent in the non-White corpus. There is no clear pattern of collocates for *depression* in the White corpus, and concordance sentences show that only two instances are used to discuss matters related to shootings. One is used when discussing survivors of Columbine:

5. *"Ms. Klebold said her son and her son's friend helped set a template for others, leading young people with depression,..."*

One instance of *depression* was used in a letter to the editor writing in about mass shootings, suggesting that individuals with psychiatric issues could be violent:

6. *"Many years ago, I was physically attacked in my private office by a female patient whom I had been treating for depression."*

The direct association between psychiatric condition and violence is rare within this corpus, and could be significant as this individual cites their background as a psychiatrist (which could be considered holding a power base of knowledge of psychiatric health (Van Djik 2001)), which could possibly influence readers to accept this view. However, due to this usage in an editorial and due to being only one instance of use, this cannot be considered a significant frame within this dataset. The other two instances of *depression* in the White dataset were used in an article unrelated to the shootings. The one use of *depression* is used in an article about the aftermath of the PULSE (Orlando) shooting:

> 7. *"He has spent the past few months being treated for nightmares and depression…"*

This individual occurrence could possibly signal a larger frame of mental health discussion, but a larger corpus with more events would be needed to see if there was indeed a continued pattern of use. *Psychiatric* shared similar collocate patterns of *health*, with three occurrences in the non-White dataset and one occurrence in the White dataset:

Terms related to *health* (psychiatric): drugs (W); illness, bed, treatment (NW)

Concordance data shows that *psychiatric* was used to discuss PTSD treatments (related to the PULSE shooting), and to discuss the lack of community mental health resources in an article which referenced PULSE in the non-White dataset. The one use of *psychiatric* in the White dataset was used to discuss an NRA member blaming shootings on psychiatric drugs:

> 8. *"Oliver North, the incoming president of the National Rifle Association, Sunday on Fox News blamed mass shootings on violent movies and overuse of psychiatric drugs like Ritalin."*

While this wordlist item is certainly evoking a frame of psychiatric connections in these two

datasets, there are not enough occurrences to determine if this is a continual pattern across

shooting events. Similarly, the term *psychotic* evokes a mental illness frame in both corpuses but

does not have enough occurrences to suggest strong patterns of use:

9. *"... that when a psychotic person enters a facility, a school, where kids are at play or a study or at lunch and they pull a weapon,..."* (W)

10. *"My son's killer was a fellow student, a sophomore in the throes of a psychotic break*." (NW)

A larger corpus controlling for these specific items could possibly reveal a more constant pattern.

3.4.7 Negative Attributes

Negative Attributes, a category created for this study, had high frequencies of wordlist

items within both datasets.

	NW	W
Demanding	2	2
Unpredictable	1	0
Different	34	20
Problem	17	27

Frequencies of Negative Attributes terms across datasets. Table 6.

There were no clear collocate patterns for *demanding,* as the non-function word

collocates-*readers, stronger,* and *saturday*- did not evoke any collective theme. Concordance

sentences also did not show a pattern of *demanding* being used to evoke a mental health frame. It

was, however, used in articles directly related to the shootings in the datasets. *Unpredictable* had

one occurrence, and did not evoke a mental health related frame. *Different* did not have any

clear-cut patterns, despite being one of the wordlist items with the highest count. Collocate

patterns show this wordlist item does not evoke any clear mental health-related frames in the non-White corpus, and the same pattern persists for the White corpus. Concordance data shows that this word is used in a variety of discourses and does not seem to evoke any particular frames. *Problem*, the last word in this section of wordlist items, evokes a strong frame of issue and need for improvement when it is used, and is used to evoke this frame for several topics in the White corpus, most commonly to discuss guns and how they were-or were not-the issue behind shootings:

> 11. *"One of the students invited, Callie Wylie, told The Associated Press this week that violence was not a 'gun problem.'"*

Problem is also used in the white corpus to discuss issues which may be behind shootings:

> 12. *The Santa Fe high school seemed to have been well patrolled, so it was tough arguing that the problem was a lack of security.*

Three uses of *problem* correlated with the use of a possible mental health frame in the surrounding text:

> 13. *While cautioning that he was hesitant to imply that most mass shooters fit a specific profile, Dr. Ferguson listed some commonalities. They tend to have mental health problems, sometimes undiagnosed, a history of antisocial behavior, have often come to the attention of law enforcement or other authorities and are what criminologists call "injustice collectors," he said. "The problem is, you could take that profile and collect 500,000 people that fit," he said. "There are a lot of angry jerks out there that don't go on to commit mass shootings."*

Problem within the White corpus also has the collocate term *bullying,* which is most likely due to the young age of the shooters and victims involved:

> 14. *"...some say bullying has long been a problem at this rural Texas town's lone high school, but others don't recall the suspected shooter, Dimitrios Pagourtzis, being picked on by his peers."*

The collocate *students* is also unique to the White corpus, most likely to the young age of the

individuals involved. The non-White corpus does not have such clear-cut multiple patterns of

*problem,*but does have a similar frame related to guns:

> 15. *"I don't know how many more shootings have to happen for us to figure out that there's a problem," said Ms. Best, a 53-year-old financial-services manager.* [2]

3.4.8 Loneliness

Loneliness wordlist items had low frequencies within the corpus. *Loneliness* was not

found in either dataset and thus had no collocates. The other term in this wordlist set, *isolated*,

had low counts in both datasets, but still evoked a mental illness frame during one use in the

White dataset:

> 16. *"During the trial, his father took the stand and described his son as an isolated and deeply autistic young man who played with stuffed animals all day, according to The Sun Sentinel."*

While not referring to a shooter, this use of *isolated* does evoke a mental illness frame. There

was no such usage of isolated in the non-White database, but *isolated* was used to discuss gun

control:

> 17. *"You can't get people excited about gun control because there's a domestic homicide, an isolated case somewhere in America," said James Alan Fox, a professor of criminal justice at Northeastern University."*

While this term did not have high count in either dataset, it does appear that this term can evoke

very vivid frames, and a larger corpus may reveal more patterns of use.

3.4.9 Violence

The final section of the wordlist pertains to *violence*, and consists of one word: *violent.*

This word had relatively high occurrence rates in both datasets, with 14 occurrences in the

---

[2]This use of *problem* had the subject of gun control in the text above it

non-White corpus and 32 in the White corpus. The collocates for this term did have clear

patterns within the datasets. The White collocates fell into three main categories: terms related to

individuals, terms related to *entertainment*, and terms related to *violence:*

Terms related to *individuals*: individuals, communities

Terms related to *entertainment*: entertainment, movies, video, activities, playing, played, game

Terms related to *violence*: crimes, crime, commit, committing, attack,shootings

There were also interesting collocates that did not fit into these categories, such as *young,*

inherently, and *first.* Concordance sentences show this term being used to discuss possible causes

for shooting violence:

18. *"Oliver North, the incoming president of the National Rifle Association, Sunday on Fox News blamed mass shootings on violent movies and overuse of psychiatric drugs like Ritalin."*

This term is also used as an adjective to discuss the nature of the shootings or individuals:

19. *"Some measures go beyond 'hardening' school buildings and expanding police presence and focus instead on how to respond to a violent attack."*

This term also appears alongside a mental illness frame, as stated previously for *depression:*

20. *" I had never detected any sign that she could become violent. If, I, a psychiatrist, could not predict that my own patient could become violent, then what hope is there that background checks alone will prevent gun violence?"*

As previously stated in the discussion regarding *depression*, the credentials of this psychiatrist

writing a letter to the editor could be considered potentially enough to influence readers to adopt

this correlation, but the fact that this is not a published written article limits the possibility of

who would read it. In contrast, the several of the collocates for the non-White corpus fall into

categories as well:

Terms relating to behavior: extremism, racism, behavior

Terms relating to violence: altercation, attacks

Terms related to crime: criminals, crime

Terms related to death: deaths, death

Many of the collocates for this term in the non-White dataset are interesting, and do not fall into these categories: *episodes, dire, prosecuting,* and *rhetoric* are several of them. Concordant sentences show that *violent* in the non-White corpus is correlative with a possible mental health frame:

> 21. *"In a statement, the National Rifle Association said that "none of the governor's gun control proposals would have prevented the horrible tragedy at Virginia Beach," and that he should focus on mental health issues and prosecuting violent criminals instead."*

Most of the uses of *violent* in the non-White corpus is as an adjective to characterize other subjects, such as racism or events:

> 22. *"We discussed the deep societal problem of not just violent racism but also the casual racism that feeds it."*

There is also one instance of *violent* in conjunction with discussion of video games:

> 23. *"Colonel Grossman's take on the research got more dire: Violent visual imagery actually changed the brains of players. Video games were digital crack. The media were taking no responsibility for the content they put out there."*

Further investigation with a larger corpus could possibly indicate a pattern in this video game discussion, but in this corpus it would appear that it appears more in articles related to White shooters.

4.0 Conclusion

In summary, this study used both a quantitative and a qualitative approach to determine whether or not there are differences present between the framings of white and non-white mass shooters,

and whether there are more terms which describe or discuss mental illness in media articles about white shooters present across media publications.

The hypothesis that there will be differences between the discussions of white and non-white shooters was upheld, with higher frequencies of items from a wordlist of mental-illness related words within a corpus of articles collected about white shooters and lower frequencies of items from the same wordlist in a same-size corpus of shootings by non-white shooters. There were also consistent differences between the two datasets and the most frequent collocates for the same wordlist items. However, despite the differences between collocates and differences in frequencies of wordlist items, this study has no conclusive results as to whether or not White shootings were reported with a greater amount of mental illness frames.

From a CDA perspective, the use of lexical items which suggest mental illness or the quality of an individual's mental state could be considered a form of controlling discourse, as journalists hold power through a higher volume of knowledge than the rest of the public, and can control the discourses dispersed through the media (Van Djik 1995, Van Djik 2001). If discourses surrounding mental health are only being discussed when White individuals are the perpetrators of the shooting event, this could possibly influence readers to perceive mental health issues as a predominantly White issue, possibly influencing the mental health care that is offered or provided to non-White individuals. Framing shooting events with designators is an ideological process (Pan and Kosicki 1993) and if non-qualified (non-licensed) individuals are discussing the quality of an individuals' mental state or speculating on possibly psychiatric or psychological foundations of an individual's actions, the resulting discourse (and those reading it) will possibly be influenced by unqualified opinion or possible biases. These unqualified opinions and biases

have the possibility of influencing those receiving the discourses, since journalists control what

is available through the media (Van Djik 1995). Using frames by utilizing discourse about

mental health may also influence readers to view the shooting events differently than if a

different frame was used, as different frames elicit different responses (Schnell and Callaghan

2005).

This study could benefit from being run again with a larger corpus size, more

publications used, and more shooting events included. The results of this study were most likely

affected by the ages of the shooters, the venues of the shootings, and the results of the keyword

searches. Words like *bullied* were most likely absent from the non-White corpus due to the

White shooters being younger individuals, while the non-White shooters were older. There was

also a number of articles in the non-White corpus which focused on the resulting mental health

of first responders at the PULSE (Orlando) shooting, which may have resulted in a skewed

number of mental-health related terms. Widening the corpus to include more events, with a wider

range of ages and venues would allow for a more diverse dataset, and would potentially control

for these kinds of discrepancies. Another form of data collection, possibly by using the Corpus of

Contemporary American English (COCA) or another type of mass data collection tool, could

also be beneficial, and would allow for non-related articles to be weeded out-something this

study did not control for.

Possible future applications for this study would be applying these metrics to news stories

within the media studies, communication studies, or race studies fields, as a form of analyzing

the possible biases in news stories. If expanded further, this form of study could also be

considered beneficial to the field of psychological sciences, as a practical metric of how public

and social opinion could possibly reveal biases in treatment or perception.

7.0 References

Angermeyer, M. C., & Dietrich, S. (2006). Public beliefs about attitudes towards people with mental illness: A review of population studies. *Acta Psychiatrica Scandinavica, 113,* 163-179. doi:10.111/j.1600-0447.2005.00699.x

Barberi, D., Ahlin, E.M., Hummer, D.C., and Gabbidon, S.L. (2018). Are Non-U.S. Citizens Color-Blind? The Racialization of Violent Crimes. *Race and Justice*, 1(21).

Barry, C. L., McGinty, E. E., Vernick, J. S., & Webster, D. W. (2013). After Newtown—Public opinion on gun policy and mental illness. The New England Journal of Medicine, 368, 1077-1081. doi:10.1056/NEJMp1300512

Bednarek, M., & Caple, H. (2014). Why do news values matter? Towards a new methodological framework for analysing news discourse in Critical Discourse Analysis and beyond. *Discourse & Society, 25*(2), 135-158

Bell A (1991) The Language of News Media. Oxford: Blackwell.

Cassidy, W.P., La France, B.H., & Babin, S. (2018) Routine Adjustments: How Journalists Framed the Charleston Shooting. *International Journal of Communication 12*.

Chouliaraki,L. (2000) Political discourse in the news: democratizing responsibility or aestheticizing politics?. *Discourse in Society*, *11*(3).

Chyi, H.I., & McCombs, M. (2004). Media Salience and the Process of Framing: Coverage of the Columbine School Shootings. *J&MC Quarterly, 81*(1),22-35.

Corrigan, P. W., Kosyluk, K. A., Konadu, F., & Park, J. H. (2014). How does direct to consumer advertising affect the stigma of mental illness. Community Mental Health Journal, 50, 792-799. doi:10.1007/s10597-014-9698-7

Cotter C (2010) News Talk: Investigating the Language of Journalism. Cambridge: Cambridge University Press.

Coverdale, J., Nairn, R., & Claasen, D. (2002). Depictions of mental illness in print media: A prospective national sample. *Australian and New Zealand Journal of Psychiatry, 36*, 697–700. http://dx.doi.org/10.1046/ j.1440-1614.2002.00998.x

Demszky, D., Garg,N., Voight, R., Zou, J., Gentzkow, M., Shapiro, J., and Jurafsky,D. (2019). Analyzing Polarization in Social Media: Method and Application to Tweets on 21 Mass Shootings. *arXiv preprint arXiv:1904.01596.*

Eagles, J. M., Carson, D. P., Begg, A., & Naji, S. A. (2003). Suicide prevention: A study of patients' views. *The British Journal of Psychiatry, 182*, 261-265. doi:10.1192/bjp.182.3.261

Elsass, H. J., Schildkraut, J., & Stafford, M. C. (2014). Breaking news of social problems: Examining media effects and panic over school shootings. *Criminology, Criminal Justice, Law & Society, 15*(2), 31–42.

Fowler R.G. (1991) Language in the News: Discourse and Ideology in the Press. London: Routledge. Galtung J and Rüge MH (1965) The structure of foreign news. *Journal of Peace Research 2*(1): 64—91

Goff, P. A., Eberhardt, J. L., Williams, M.J., & Jackson, M.C. (2008). Not yet human: Implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology, 94* (2). 292-306.

Jashinsky, J. M., Magnusson, B., Hanson, C., & Barnes, M. (2017). Media Agenda Setting Regarding Gun Violence before and after a Mass Shooting. *Front Public Health, 4*(291). https://doi.org/10.3389/fpubh.2016.00291

Jorm, A. F., & Reavley, N. J. (2014). Public belief that mentally ill people are violent: Is the USA exporting stigma to the rest of the world? *Australian and New Zealand Journal of Psychiatry, 48*, 213–215. http:// dx.doi.org/10.1177/0004867413509697

Marrast, L., Himmelstein, D., & Woolhandler, S. (2016). Racial and Ethnic Disparities in Mental Health Care for Children and Young Adults: A National Study. *International Journal of Health Services, 46*(4), 810-824. doi:10.2307/48513006

Mass Shootings in 2016. Gun Violence Archive. https://www.gunviolencearchive.org/reports/mass-shooting?year=2016

Mass Shootings in 2017. Gun Violence Archive. https://www.gunviolencearchive.org/reports/mass-shooting?year=2017

Mass Shootings in 2018. Gun Violence Archive. https://www.gunviolencearchive.org/reports/mass-shooting?year=2018

Mass Shootings in 2019. Gun Violence Archive. https://www.gunviolencearchive.org/reports/mass-shooting?year=2019

McCombs, M. E., & Ghanem, S. I. (2001). The convergence of agenda setting and framing. In S. D. Reese, O. H. Gandy, & A. E. Grant (Eds.), Framing public life: Perspectives on media and our understanding of the social world (pp. 67−81). Mahwah, NJ: Lawrence Erlbaum.

McGinty, E. E., Kennedy-Hendricks, A., Choksy, S., & Barry, C. L. (2016). Trends in news media coverage of mental illness in the United States: 1995–2014. Health Affairs, 35, 1121–1129. http://dx.doi.org/10 .1377/hlthaff.2016.0011

McGinty, E.E., Webster, D.W., and Barry, C.L. (2013). Effects of News Media Messages About Mass Shootings on Attitudes Toward Persons With Serious Mental Illness and Public Support for Gun Control Policies. *Am J Psychiatry 170*(5).

McGinty, E. E., Webster, D. W., Jarlenski, M., & Barry, C. L. (2014). News media framing of serious mental illness and gun violence in the United States, 1997-2012. *American Journal of Public Health, 104,* 406-413. doi:10.2105/AJPH.2013.301557

McGinty, E. E., Webster, D. W., Jarlenski, M., & Colleen, L. B. (2014). News Media Framing of Serious Mental Illness and Gun Violence in the United States, 1997-2012. *American Journal of Public Health, 104*(3), 406–413.

McGuire T.G., Miranda J. (2008) New evidence regarding racial and ethnic disparities in mental health: policy implications. *Health Aff (Millwood), 27* (2):393‐403. doi:10.1377/hlthaff.27.2.393\

National Alliance on Mental Illness. (2015). Mental health by the numbers. Arlington, VA: Author. Retrieved from www.nami.org

Oliver, M.B., and Fonash, D. (2002). Race and crime in the news: Whites' identification and misidentification of violent and nonviolent criminal suspects. *Media Psychology 4* (2). 137-56.

Pan, Z., & Kosicki, G.(1993). Framing Analysis: An Approach to News Discourse. *Political Communication 10* (1): 55–75.

Penn, D. L., Kohlmaier, J. R., & Corrigan, P. W. (2000). Interpersonal factors contributing to the stigma of schizophrenia: Social skills, perceived attractiveness, and symptoms. *Schizophrenia Research, 45*, 37-45. doi:10.1016/S0920-9964(99)00213-3

Rose, D., Thornicroft, G., Pinfold, V., & Kassam, A. (2007). 250 labels used to stigmatise people with mental illness. *BMC health services research*, 7(97). https://doi.org/10.1186/1472-6963-7-97

Saperstein, A., Penner, A., & Kizer, J. (2014). The Criminal Justice System and the Racialization of Perceptions. *The Annals of the American Academy of Political and Social Science, 651*, 104-121. Retrieved May 9, 2020, from www.jstor.org/stable/24541696.

Schildkraut, J., & Elsass, H. J. (2016a). The influence of media on public attitudes. In L. Wilson (Ed.), The Wiley Handbook of the Psychology of Mass Shootings (pp.117-135). Oxford, UK: Wiley.

Schildkraut, J., Elsass, H. J., & Stafford, M. C. (2015). Could it happen here? Moral panics, school shootings, and fear of crime among college students. *Crime, Law, and Social Change, 63*(1-2), 91–110. doi:10.100710611-015-9552-z

Schildkraut, J., & Muschert, G. W. (2013). Violent media, guns, and mental illness: The three ring circus of causal factors for school massacres, as related in media discourse. *Fast Capitalism, 10*(1). Retrieved from http://www.uta.edu/huma/agger/ fastcapitalism/10_1/schildkraut10_1.html

Schnell, F. and Callaghan, K. (2005). Terrorism, Media Frames, and Framing Effects: A Macro- and Microlevel Analysis. In Framing American Politics (ed. Schnell and Callaghan). University of Pittsburgh Press.

Strydom, P. (2000).Sociological Discourse Analysis. In *Discourse and Knowledge:The Making of Enlightenment Sociology. 1*(1). Liverpool University Press.

Stückemann, E. (2018). *Deadly Gun Violence: A Critical Discourse Analysis of Possible Ideological Influences on the Framing of a Mass Shooting.* [Master's Thesis, JÖNKÖPING UNIVERSITY].

U.S. Department of Health and Human Services. Mental Health: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health; 1999.

U.S. Department of Health and Human Services. Mental Health: Culture, Race, and Ethinicity-A Supplement to Mental Health: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services; 2001.

Van Djik, T.A. (1995)Aims of Critical Discourse Analysis. *Japanese Discourse 1*. 17-27.

Van Dijk, T. A. (2001). Critical discourse analysis. In D. Tannen, D. Schiffrin, & H. Hamilton (Eds.), Handbook of discourse analysis (pp. 352-371). Oxford: Blackwell.

Wilson, L.C., Ballman, A.D., and Bucze, T.J. (2016). News Content About Mass Shootings and Attitudes Toward Mental Illness. Journalism & Mass Communication Quarterly 2016, Vol. 93(3) 644 –658

Wodemaghen, M. (2014). Media construction of a school shooting as a social problem. Journalism, 15(6) 696 –712

Yelderman, L.A., Joseph, J.J.,Butler, E., & West, M.P. (2019) Mass Shootings in the United States: Understanding the Importance of Mental Health and Firearm Considerations. *Psychology, Public Policy, and Law, 25*, (3), http://dx.doi.org/10.1037/law0000200

8.0 Appendices

Appendix A:

```python
from nltk import *
```

```
In [3]:
```

```python
WHITE = ['Dayton', 'El Paso', 'Thousand Oaks', 'Pittsburgh', 'Santa Fe', 'Sutherland', 'Las Vegas']
#Pompano excluded due to previous error re: shooter race
```

```
In [4]:
```

```python
NWHITE = ['Orlando', 'Virginia']
```

```
In [5]:
```

```python
import random
```

```
In [6]:
```

```python
squib_item=random.choice(WHITE)
```

```
In [7]:
```

```python
print squib_item
```

Santa Fe

```
In [9]:
```

```python
squib_item2=random.choice(WHITE)
```

```
In [10]:
```

```python
print squib_item2
```

Santa Fe

```
In [11]:
```

```python
squib_item3=random.choice(NWHITE)
print squib_item3 #Pompano shooting had White shooter, data already found and moved to the
White corpus.
```

Pompano

```
In [12]:
```

```python
squib_item4=random.choice(NWHITE)
print squib_item4
```

Pompano

```
squib_item5=random.choice(NWHITE)
print squib_item5
```

Pompano

```
squib_item6=random.choice(NWHITE)
```

```
print squib_item6
```

Orlando

Appendix B: From Rose et. al. (2007) (3)

Table 1: Most frequently occurring words and terms

Term	Frequency	Term	Frequency
Disturbed	11	Scary	5
Nuts	11	Div	4
Confused	10	Dumb	4
Psycho	10	Ill	4
Spastic	10	Loneliness	4
Crazy	9	Loony bin	4
Depression	7	Psychiatric	4
Disabled	7	Screw loose	4
Mad	7	Stress	4
Unpredictable	7	Violence	4
Insane	6	Brain dead	3
Loony	6	Demanding	3
Mental	6	Demented	3
Schizophrenia	6	Dinlo	3
Thicko	6	Distressed	3
Weird	6	Embarrassed	3
Depressed	5	Flid	3
Different	5	Frustrated	3
Freak	5	Isolated	3
Odd	5	Sad	3
Problem	5	Strait jacket	3
Retard	5	Wheel chairs	3