

SOCIAL MEDIA FRAMING OF THE DAKOTA ACCESS PIPELINE

by

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ABSTRACT

Carla Tierney. Social Media Framing of the Dakota Access Pipeline. Under the direction of Dr. Teresa Scheid.

The purpose of this research is to identify and understand the social media framing of the Dakota Access Pipeline (DAPL). The DAPL is in North Dakota, crossing .55 miles north of the Standing Rock Sioux reservation. Primary criticisms raised through the Standing Rock Sioux and Cheyenne River Sioux tribes' lawsuit of the DAPL are grounded in violations of the Clean Water Act (CWA) and the Rivers and Harbors Act (RHA) and the federal authorization given to Energy Transfer Partners (ETP) to allow the DAPL to discharge into the waters of the Cannonball River. Within the United States, Native American reservations are known to have high levels of poverty and face some of the worst environmental problems (Bullard, 2003). Newspaper articles about the DAPL that are published on the social media site Facebook, will be analyzed to understand how the media "framed" the DAPL, and to examine the responses to this framing.

This is a multi-stage mixed method research design. The first stage of the project begins with the selection of newspapers on Facebook, and how many posts they have made in relation to the DAPL on their Facebook pages. These newspapers are near the DAPL and were split into two tiers. The first tier consists of smaller, more local newspapers such as the *Bismarck Tribune* and the Native American press the *Cherokee Phoenix*. The second tier consists of the *Chicago Tribune* and the Native American press *Indian Country Today*, which are the larger, more nationally known newspapers. Due to

the amount of content shared by the *Bismarck Tribune* and *Indian Country Today*, I have selected a timeframe window of the most posts, from September 2016 to March 2017 which includes key dates of DAPL events and the bulk of news stories. All of the posts from the *Chicago Tribune* and *Cherokee Phoenix* occur in this time span.

The second stage of the research consists of locating the Facebook pages of the newspaper agencies and collecting all the posts they have made in relation to the DAPL, the reactions to the posts, the number of shares of each posting, and a content analysis of the post.

The third stage is the content analysis of the newspaper articles. I analyzed the posting comments by the newspaper and the article and title. This analysis leads to the development of codes and themes and provides an understanding of how the newspapers have framed the DAPL.

The last stage of the research is the quantitative analysis with SPSS of the Facebook emotional reactions and the amount of shares the articles received. The primary objective is to determine which themes received the most or least reactions/shares, which reactions are most/least popular for each newspaper and their audience, and which themes are more prominent within each newspaper.

This analysis provides a sociological understanding of the DAPL and protests, the political conversation, and the political social consciousness of the United States. The initial appropriate themes to emerge from the analysis are environmental racism and eco-feminism, as the DAPL is an environmental issue and known feminists have come out in support of the anti-DAPL movement, such as Shailene Woodley and Jill Stein. Through the content analysis, other codes emerged consisting of Tribal Rights, Discussion of

Protestors positively and negatively, and Native Unity. Through the statistical analysis, significant correlations were found, including the newspapers dates and specific emotional reactions, specific frames and sub-frames within the newspaper articles and receiving specific emotional reactions, and frames within the *Bismarck Tribune* and *Indian Country Today* receive more attention on Facebook than other frames and newspaper articles.

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INTRODUCTION

The Dakota Access Pipeline (DAPL) is a 1,172 mile long oil pipeline stretching from Stanley, North Dakota to Patoka, Illinois. The pipeline crosses through four states: North Dakota, South Dakota, Iowa, and Illinois. In southern North Dakota, the pipeline crosses the Missouri River .55 miles north of the Standing Rock Sioux reservation. In response to the pipeline placement, the Standing Rock Sioux tribe began protesting the location in March 2016, with the lawsuit being filed in July 2016. The summer of 2016 brought the pipeline protest to the forefront of social media sites, while the television mainstream media avoided the issue for several more months. During this time, local newspapers and independent journalists were the primary purveyors of the DAPL news, whether factual or not. I explore how the media, through local newspapers, “framed” the DAPL on Facebook. Media framing is “a central organizing idea or story line that provides meaning to an unfolding strip of events. The frame suggests what the controversy is about, the essence of the issue” (Cacciatore et al, 2015:10). Media framing will be generally defined as newspaper article, posting’s contents, and Facebook users’ reactions. Media frames involve key socio-political issues which emerge through the articles and responses to the articles. A key issue, important politically and sociologically, is Environmental Racism. Environmental Racism is defined as any policy, practice, or directive which affects and disadvantages minority individuals, groups, and communities in specific geographical locations (Bullard, 1993; Bullard et al., 1997; Sicotte, 2008; Rainey & Johnson, 2009). The landfill in Emele, Alabama is a prime example of Environmental Racism. The town’s population consists of 90% African Americans and has one of the largest landfills in the country that has been nicknamed the “Cadillac of landfills” (Bullard, 1993). Environmental Racism is at the

heart of the DAPL, as Native American reservations face high rates of poverty, lack of healthcare facilities, and consistent environmental issues (Bullard, 2003). Over three dozen Native American reservations have been targeted by waste sites, landfills, and incinerators (Bullard, 2003).

In this thesis, I explore selected newspapers on Facebook to identify frames within articles about the DAPL, such as environmental racism. I completed a multi-stage mixed method research project which began with a content analysis of selected newspaper articles about the DAPL. Through the content analysis, I identified other key frames within the articles. Once these frames were identified, I gained an understanding on whether frames appeared more often in different newspapers. I conducted statistical correlations to identify connections between the emotional reactions on Facebook and the newspapers, frames, and social media's attention to frames. Through this thesis, I lay the groundwork for future research to include more diverse newspapers, other social media platforms, and further analysis of news coverage about the DAPL. Through the analysis of the newspaper articles, I found two sociological processes consistently present, which are conflict and accommodation (Bardis, 1979; House, 1926). These two processes are important for attempting to explain the DAPL protests through a sociological lens.

I became interested in the DAPL in April 2016, a month after the camps began forming on the Standing Rock reservation. I noticed a difference in coverage of the DAPL and the campsites at this time depending on what news source I received information. Due to this observation, I realized a critical issue in the role mainstream media and social media have played in raising public awareness of the DAPL. I also noticed that depending on the news source, there were differences in whether there was

encouragement or discouragement for political activism around the DAPL and more generally the presence of environmental racism. Through this interest, I began pursuing and gathering information on the news sources about the DAPL and broadened what news sources I was reading. I became curious about how newspapers framed the DAPL, if different newspapers used different frames, and what effect it had on the public awareness of the DAPL. As I get most of my news from social media, primarily Facebook, I began wondering if the emotional reactions on Facebook would provide valuable information about the public response to these various media frames. I also began wondering if different frames received more attention based on the amount and type of comments on the posts and the amount of shares each post received.

BACKGROUND AND SIGNIFICANCE

The Problem With the DAPL

Energy Transfer Partners (ETP), the owners of the DAPL, filed the compatibility and route permit application on December 22, 2014, beginning the process of building the DAPL. The route was to go through seven North Dakota counties, including Mountrail, Williams, Mckenzie, Dunn, Mercer, Morton, and Emmons. At the time of this filing, ETP requested waivers for procedures and time schedules that are established through North Dakota laws, including Century Code sections 49-22-07.2, 49-22-08, 49-22-08.1, 49-22-13, and Administrative Code section 69-06-01-02. The administrative code section requires separate filings, hearings, and notices for the applications (Government of North Dakota, 2015). On March 25, 2015, the Public Service Commission of North Dakota deemed the applications complete by ETP, and approved the application and permits. Three public hearings were scheduled to provide the public with information on the overview of the project, with a focus on different geographical regions within the project, as to provide convenience to people effected along the 1,172 mile track of the proposed pipeline. The meetings were scheduled for May 28, June 15, and June 26 of 2015.

Throughout May 2015, dozens of citizens of North Dakota, who lived along the projected pipeline route, filed petitions for intervening in the pipeline route and affidavits to ensure that they were protected throughout the legal proceedings and building of the DAPL. Throughout the remainder of 2015 and January 2016, concerns over the details of the project and the affidavits of citizens were discussed and agreements were reached for the route for the DAPL. Construction on the pipeline began January 25, 2016 in Stanley,

North Dakota. Throughout the following six months the DAPL work progressed, and route updates were given to the Commission. The original route of the DAPL was to go north of Bismarck, North Dakota, but it was rejected over concerns by citizens of Bismarck due to water contamination issues. Routes two and three, with the third being the final route, brought the pipeline south of Bismarck to its current place (Government of North Dakota, 2014). Throughout this process, the Standing Rock Sioux and Cheyenne River Sioux nation was not involved in the route planning or process, as ETP did not reach out to them, because the reservation was not physically involved in the pipeline route (Figure 1). As the crossing for the DAPL is less than a mile from the border of the Standing Rock Sioux reservation, and the land on which the DAPL is routed is included in the Fort Laramie treaty of 1868 between the Sioux tribes and United States government, including them in discussions on the route should have happened (Clark, 2016; National Archives, 2016). The treaty did not last a decade, as General Clusters moved American miners into the land promised to the Sioux. Despite the treaty, the land was claimed and used by the American miners with protection by the United States military (National Archives, 2016).

The route change and neglect of taking the Standing Rock Sioux and Cheyenne River Sioux nations' into consideration and ignoring their concerns over contamination is evidence of environmental racism, whether intentional or not (Earth Justice, 2016). Throughout United States history, there has been consistency in ignoring Native Americans and their concerns, as evidence in the ignoring of the Fort Laramie treaty of 1868. The exclusion of the standing Rock Sioux nation in the DAPL route plan is not new to Native American history.

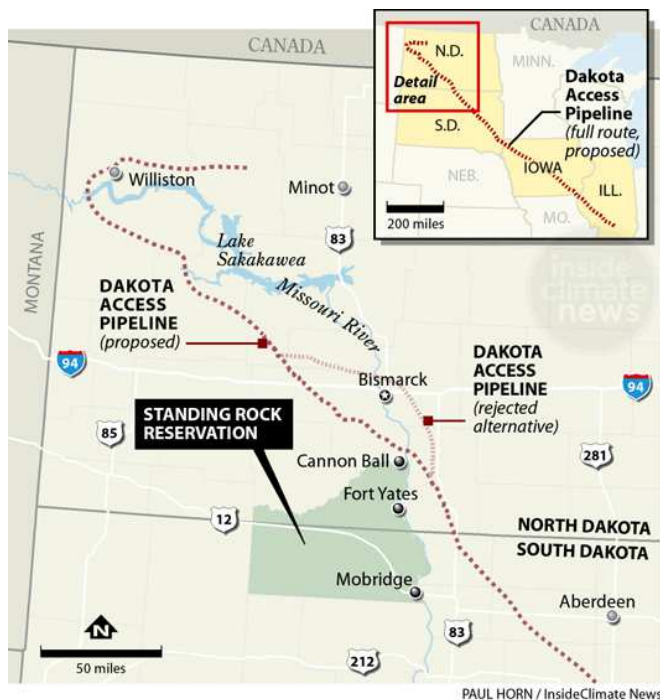


Figure 1: DAPL route by the Standing Rock Reservation (McKenna, 2016)

The Standing Rock Sioux and Cheyenne River Sioux nations', expecting legal action would need to take place, hired Earth Justice for legal representation to halt the DAPL project and to prevent contamination of their water source. Earth Justice is the United States' first and largest non-profit environmental legal firm that represents all clients free of charge (Earth Justice, 2018). On July 27, 2016, Earth Justice filed a lawsuit to stop the pipeline from crossing under Lake Oahe, the primary water source for the Sioux nation, with two primary complaints (Earth Justice, 2016). The first complaint sited violations of the Clean Water Act (CWA) and Rivers and Harbors Act (RHA). The second complaint involves the federal authorization by the Army Corps of Engineers to allow the DAPL to discharge pollutants into the waters, including at points near tribal ancestral grounds (Earth Justice, 2016). Oil pipeline discharges result in sheen or discoloration of water surfaces, violation of water quality standards, and can cause a sludge or emulsion to deposit and build up beneath the surface of the water (EPA, 2017).

In March 2016, protestors against the DAPL began setting up camps at the Standing Rock Reservation, specifically the Oceti Sakowin camp, in protest of the DAPL. These camps consisted primarily of tents and a few teepees for ceremonial services by the Standing Rock Sioux. Camp occupants grew into the thousands and lasted until February 22, 2017 at 2pm, when North Dakota's Governor issued a camp shut down. On multiple occasions between March 2016 and February 2017, police brutality, inhumane treatment, unlawful arrests, and many constitutional and civil rights have been reported and documented by protestors, independent journalists, newspapers, and observers. However, from March 2016 to September 2016, the major news media provided little coverage of the Standing Rock protest as it was considered a state issue just for North Dakota, and not in need of national and international attention.

Towards October 2016, major news sources began live coverage and more stories regarding the events in North Dakota when Shailene Woodley, a major Hollywood movie actress, was publicly arrested at a protest site during a Facebook livestream video. This brought a spike in protestors' appearances at the Standing Rock reservation in support of the Standing Rock and Cheyenne River Sioux nations' and in discussion on social media sites, like Facebook. In November 2016, under pressure from supporters of the Standing Rock and Cheyenne River Sioux nations', President Obama requested that the Army Corps of Engineers halt the pipeline and perform an Environmental Impact Statement (EIS) regarding the pipeline crossing above or below the river. The Army Corps issued this cessation on December 4, 2016, and the protests were quiet through the beginning of the New Year, as the nation waited for the results of the Army Corps statement and whether they would move forward on completing an EIS. The political atmosphere

around the Army Corps' position began to change as the Presidency shifted from Barack Obama to Donald Trump.

Less than a week into President Donald Trump's presidency, on January 24, 2017, the executive branch issued two executive orders for the DAPL and one for the Keystone XL pipeline, which had its plans halted five years ago under President Obama, that is proposed to run from Canada towards Texas and Louisiana. These executive orders was directed at the Army Corps of engineers to

“Review and approve in an expedited manner, to the extent permitted by law and as warranted, and with such conditions as are necessary or appropriate, requests for approvals to construct and operate the DAPL, including easements or rights-of-way to cross Federal areas under section 28 of the Mineral Leasing Act, as amended, 30 U.S.C. 185; permits or approvals under section 404 of the Clean Water Act, 33 U.S.C. 1344; permits or approvals under section 14 of the Rivers and Harbors Act, 33 U.S.C. 408; and such other Federal approvals as may be necessary” (Executive Order 13766, 2017).

This executive order insisted that the Army Corps quickly review not only the DAPL easement, but also for the Keystone XL pipeline (Figure 2). It allowed for the operation of the pipeline while the Standing Rock Sioux Tribe is still in the legal process against the pipeline.

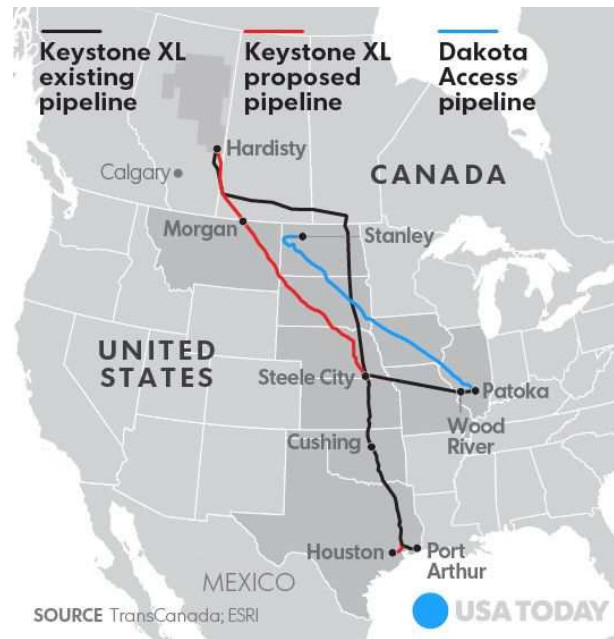


Figure 2: Map of DAPL & Keystone XL pipeline (USA Today, 2017)

On February 8, 2017 the Army Corps issued the easement for ETP to go ahead and finish the DAPL. The Standing Rock Sioux Tribe filed a motion for summary judgement on February 14, in opposition to this ruling. On February 22, 2017 the Oceti Sakowin camp where protestors had been living for the past year shut down at 2pm, with police forces in armored gear evacuating and arresting those who remained. By mid-March 2017 the DAPL was operational and 96% complete (Government of North Dakota, 2017). Lawsuits and other legislation continued to be processed through the Federal courts in 2017 and 2018 while the pipeline was operational.

The Standing Rock and Cheyenne River Sioux Tribes lawsuit is primarily rooted in Environmental Racism. The change of the route from north of Bismarck to south of Bismarck and the lack of an environmental impact statement (EIS) spurred a movement, which I will refer to as Anti-DAPL. Through this movement, news coverage increased and a temporary halt on the DAPL were achieved. With the media attention, other social

justice concerns were voiced, including police brutality, economic inequality, and favoritism towards corporations and government agencies.

Environmental contamination concerns and native sovereignty were the foundation for the protests and camps, and the United States government has been aware of contamination threats to minority communities for nearly 50 years (Hines, 2001). As early as 1971 the U.S. Council on Environmental Quality and Environmental Protection Agency (EPA) acknowledged issues with minority communities and lower income areas for being subjected to higher rates of pollution, waste, and contamination of chemicals and nuclear sites (Hines, 2001; U.S. Council on Environmental Quality, 1971). As Bullard, (2003:50) states, “The United States was founded on the principles of ‘free land’ (stolen from Native Americans and Mexicans), ‘free labor’ (African slaves brought to this land in chains), and ‘free men’ (only white men with property had the right to vote)”. However, these foundational principles have led to socio-political conflicts over issues such as unequal racial treatment, excessive police force, and environmental contamination. The anti-DAPL movement brought the latter to the forefront of the news media. Native American reservations are known to have high levels of poverty and face some of the worst environmental problems in the United States (Bullard, 2003), referred to as environmental racism.

Environmental Racism

Environmental racism occurs when minority communities are surrounded by, and must live with, contaminated areas and dangerous health conditions. Environmental racism is generally defined as any policy, practice, or directive which affects and

disadvantages minority individuals, groups, and communities, and can be intentional or unintentional by lawmakers, companies, commissions, and regulatory bodies (Bullard, 1993; Bullard et al., 1997; Sicotte, 2008; Rainey & Johnson, 2009). While the action may be unintentional, environmental racism is enforced and supported through government, legal, economic, political, and military institutions (Bullard, 2000). The term environmental racism was first coined by Reverend Benjamin Chavis, the leader of the United Church of Christ, in 1984 (Rainey & Johnson, 2009). A study done by the United Church of Christ in 1987 revealed that “15 million African Americans, 8 million Hispanics, and half of all Asian/Pacific Islanders and Native Americans resided in communities with one or more abandoned or uncontrolled toxic waste sites” (United Church of Christ, 1987:XIV). The Standing Rock Sioux and Cheyenne River Sioux nations’ in North Dakota are part of these communities impacted by environmental racism due to the DAPL and other pipelines crossing their water source.

Minority and low-income communities are at higher risk for health and environmental burdens including the nation’s air, water, and waste issues (Bullard, 1993; Hines, 2001; Bullard et al., 1997; Rainey & Johnson, 2009). Minority children, especially African Americans, are two to three times more likely than white children to be subjected to environmental hazards and living conditions in their lives (Bullard, 1993). Taken together, urban ghettos, rural poverty areas, and impoverished Native American reservations face some of the worst environmental problems in the United States (Bullard, 2003).

Prior cases of poor environmental conditions exist around the United States, ranging from Los Angeles to Houston and Dallas to Chicago to a large section of

Louisiana and more (Bullard, 1993). In Los Angeles, minorities, primarily African Americans and Hispanics, are surrounded by waste treatment, storage, and disposal facilities. These minority and lower SES areas are the primary focus for new sites to be built, despite already having the sites around them (Boer et al., 1997; Bullard, 1993; Diamond, 2006). These landfills were both privately and publicly owned. There are many examples of minority populations being forced to co-exist with environmental hazards. In Houston in the 1970s, the African American population only made up 28% of the city's population, but had 82% of the landfills located in their neighborhoods (Bullard, 1993). In Emele, Alabama, where the population is 90% African American, there is a landfill known as the "Cadillac of landfills" due to its size in the 1980s. It receives waste from all the 48 continental states (Bullard, 1993). In Dallas, there is a long history of lead smelters being in primarily African American and Latino neighborhoods, and has created a lead contamination problem among the citizens (Bullard, 1993; Diaz, 1993). In Chicago, there is an area known as Altgeld Gardens, and it is home to large portion of the African American and other minority populations in the city. The area is known as a "toxic doughnut", as it is surrounded by landfills, one hundred factories that include chemical plants and steel mills, and over one hundred abandoned toxic waste dumps (Bullard, 1993:25; Tanweer & Youth Policy Institute students, 2006).

Corporations and government agencies are the decision makers when it comes to environmental waste sites and their locations. Corporations do not randomly scatter pipelines, garbage dumps and incinerators, and collection facilities across the landscape of the United States. These facilities are mostly located in poor, minority, and elderly

neighborhoods (Bullard, 1993). Disadvantaged communities are the least likely to fight back due to a lack of resources and are easily paid off to allow the waste sites to persist. The DAPL was originally routed to go north of Bismarck, North Dakota, but due to the non-Native town raising concerns over potential water contamination, Energy Transfer Partners (ETP), the owners of the DAPL, changed the route to avoid conflicts with the Bismarck residents, and put the route .55 miles north of the Standing Rock reservation (Figures 1 and 2). The change from the first proposed route of the DAPL to the second route immediately shifted the potential conflicts from white, non-minority residents in Bismarck, to the Native, minority residents on the reservations.

This is not the first-time corporations and government agencies have collaboratively ignored environmental and health risks to minority communities, and two examples provide evidence of these collaborations. The first example is in rural eastern North Carolina. The area is known for large hog farms, as well as the state's highest concentration of African Americans. These areas produce massive amounts of waste, ranging from waste from the hogs themselves, to antibiotics and pesticides. The waste is known to drain into creeks and rivers, which the residents of these areas fish and drink from (Harris, 2000). Despite these concerns, corporations and government agencies in the area have not worked to reduce this contamination threat. The second example is oil refineries in Norco, Louisiana and Wilmington, California. Norco has a high concentration of African American citizens, while Wilmington has a variety of minorities. Both cities are faced with negative effects of the oil refineries in their neighborhoods, and government agencies are unresponsive to the negative environmental

impacts these refineries bring. These two instances show corporate overreach and government neglect resulting in environmental racism.

In response to corporate waste and government neglect, grassroots environmental protection activist groups have taken charge in the fight to protect the environment. The primary people involved in these activist groups are minority women, as they are the more nurturing and concerned about the well-being of themselves and their families (Rainey & Johnson, 2009). The DAPL had a range of female leaders at the forefront of the protests. These leaders range from Jill Stein, the 2016 Green Party Presidential candidate, to Shailene Woodley, a Hollywood actress who was arrested at a protest in North Dakota. While the early environmental justice movements in the 1900's were primarily run by men, they are now run by women, mostly women of color, and who are more likely to be pressed into activist roles over environmental threats, due to their concern for the well-being of their families and communities (Rainey & Johnson, 2009). Over 90 percent of memberships to environmental justice organizations belong to women, and women tend to be more concerned with environmental issues rather than men (Rainey & Johnson, 2009).

CONCEPTUAL FRAMEWORK

Social media is now over a decade old and has become a more established and influential form of media. It has changed the way people communicate and get involved in society. Social media was the primary platform for the anti-DAPL's message. On Twitter, Facebook, and Instagram the hashtag #NoDAPL was used for months in support of the protestors. Livestream videos on Facebook from the protests showed police brutality, unlawful arrests, and the living conditions of the protestors. Thousands of people on social media would tune in and out of these videos, share the posts of stories and pictures, and check in to the Standing Rock reservation Facebook page to confuse the police department of who was, and was not, at the reservation. Using social media for protests, especially environmental protests, is a powerful way to make these movements more successful as the ability to reach millions more people is at social media users' fingertips. Eliminating the 'digital divide' worldwide is a major strategy to combatting environmental racism, as this shines light on these issues worldwide and provides an open space for communication to take place between locations (Bullard, 2003; Eitzen & Johnston, 2015).

For this research I draw on Media Framing theory, which is generally referred to as "framing" to examine how the media discusses the DAPL and anti-DAPL protestors (Lecheler & de Vreese, 2012). Frames have a selective function, as they focus on central ideas and story lines that provide meaning to an unfolding strip of events, like the DAPL protests. The frames suggest what the controversy or issue is about. The frames push other aspects to the background to allow the focus to lay on the controversy and issues (Cacciatore et al, 2015; Lecheler & de Vreese, 2012). Framing contains two forms:

equivalence framing and emphasis framing (Cacciatore et al, 2015; Lecheler & de Vreese, 2012). Equivalence framing involves manipulating the presentation of information that is equally logical and not significantly different from each other in presentation and content, while emphasis framing involves manipulating the content of the message (Cacciatore et al, 2015; Lecheler & de Vreese, 2012). I will be using the conceptual model of emphasis framing to analyze the content of the news stories written on the DAPL and published by the newspapers. Researchers with specific issues in mind use emphasis framing, as it allows for issue specific selection of data that emphasizes aspects for the research. Emphasis framing is used for sociological understandings of the role of media in shaping our views of social problems, as media targets selected audiences (Best, 2001). Since World War II, media has shifted away from mass media and into smaller, more targeted media outlets. For example, magazines and television networks and shows have begun to cater to specific homogeneous groups to target race, age, political affiliations, religious affiliations, and so on (Best, 2001).

When the DAPL first surfaced in the news around March 2016, the primary news source for coverage was the *Bismarck Tribune* newspaper in North Dakota, Indigenous news sources, and independent journalists who went to the protest site to provide coverage for both. By September 2016, newspapers across the country were covering the DAPL and posting their articles to Facebook. Once Shailene Woodley was arrested in October 2016, television news sources began covering the DAPL alongside the newspaper sources and Facebook. The complete coverage by multiple media sources remained strong through February 2017 when the campsites were shut down by the Army Corps. Since March 2017, only local news sources, like the *Bismarck Tribune*,

indigenous sources, and independent journalists continued to cover the operation of the pipeline and continuing lawsuits.

Utilizing the conceptual model of frame theory, I explored how the media frames the DAPL. Within this analysis, I identified what main types of frames exist, such as environmental, racial, and political. I analyzed whether different newspapers vary in what frames they use for the DAPL. I also identified how social media responds to the DAPL in the emotional reactions to each newspaper and frames, and what frames receive the most attention on Facebook by the amount of shares and comments the frame receives. I examined the relationships between the news sites and frames used, the emotional reactions to these frames, the political direction of the content and the emotional reactions. Major frames originally guiding my research are environmental racism, eco-feminism, and power structures of government and corporation issues.

Content analysis and survey data are the logical procedure for understanding media framing (Scheufele, 1999). *Content analysis* is a research method that analyzes words and textual patterns within documents. I selected Facebook over other social media sites due to the six emotional reaction options, the consistency of comment threads, the ability to post larger than 160 character messages continually, and the ease of Facebook data collection. Hashtags, such as #AntiDAPL and #NoDAPL, are not limited to just Twitter anymore, as they are used on multiple sites now, such as Facebook, Instagram, and Tumblr. Further analysis was conducted to determine if additional frames exist through emerging codes in the content analysis. I analyzed newspaper stories that are posted to the newspapers' Facebook pages, and recording the reactions, comments, and shares for each posting, which can be seen in Figure 3.



Figure 3: Example of newspaper article posting on Facebook

The posting of an articles results in attitudes, opinions, and individual frames from the users of Facebook. I conceptualized and measured the media frames within the articles and comments posted by the newspaper in the sharing of the article, and these are the independent variables of the study, as defined by Frame theory (Lecheler & de Vreese, 2012). The dependent variables of the study are the emotional reactions, also known as emoting emojis on Facebook, from the Facebook users and the themes that come from comments from Facebook users. These emotional reactions are documented by Facebook for each post, and contain six options for the user to pick from. These responses are “like”, “love”, “laugh”, “wow”, “sad”, and “anger” (see Figure 4). The like reaction will be considered a general acknowledgement towards the post, with the other 5

options having more defined definitions. The love option is defined as the respondent loving the contents of the post, in a positive and happy manner. The laughing option is defined as the respondent finding something funny in the contents of the post. The wow option is defined as the respondent being in shock or awe at the contents of the post. The sad option is defined as the respondent being upset at the contents of the post. The anger option is defined as the respondent being angry at the contents of the post.



Figure 4: Facebook Emoting Emoji Options

RESEARCH QUESTIONS

The first research question is how does the media frame the DAPL? I started with three a priori codes, but allowed additional frames to emerge. Therefore, the first sub-question of the first research question is what frames exist? Additionally, frames could differ in the amount of presence in articles between newspapers, so the second sub-question of the first question is do diverse newspapers vary in what frames they use?

The second research question uses data from Facebook to determine the social media's response is to the DAPL. Three sub-questions direct my analysis. First, I explored what emotional reactions are produced by each newspaper. Second, I examined what emotional reactions are produced by each frame. Lastly, I inspected which frames received the most attention on Facebook through analyzing the amount of shares and comments the posting received when the frames are present. In summary, my analysis is guided by the following questions:

- I. How does the media frame the DAPL?
 - a. What frames exist?
 - b. Do the diverse newspapers vary in what frames they use?
- II. What is the response to the DAPL from users of Facebook?
 - a. What emotional reactions are produced by each newspaper on Facebook?
 - b. What emotional reactions are produced by each frame on Facebook?
 - c. What frames receive the most attention on Facebook by shares and comments on the newspapers posting?

RESEARCH DESIGN AND ANALYSIS

I conducted a multi-stage mixed methods research project with a combination of qualitative and quantitative data (Creswell, 2014). The first stage of the project began with the selection of newspaper sources on Facebook, and how many posts the newspapers have made in relation to the anti-DAPL on their Facebook pages. I selected the newspapers based on proximity to and relevance to DAPL; I also selected two tiers of newspapers for this project. The tier system is in place to ensure local and national newspapers are selected, and that each section has a Native American news source. The first tier is smaller local papers, including the *Bismarck Tribune* in Bismarck, North Dakota and the *Cherokee Phoenix* in Tahlequah, Oklahoma. The second tier is a larger, more nationally prominent newspaper, including the *Chicago Tribune*, located in Chicago, Illinois and *Indian Country Today*, in Verona, New York. These newspapers allowed for an in-depth analysis for how the DAPL has been framed by local and national newspapers in the United States that are near and relevant to the DAPL.

After this selection of newspapers, I moved into the second stage of data collection. I located each of these newspapers Facebook pages and collected all the articles posted by these newspapers that were in reference to the DAPL. Along with each article, I also recorded the date of the post, the title of the post, the amount of shares the post had on Facebook, and the reactions by Facebook users to the article and post. The reactions and comments to the post show how Facebook users have responded to the posting itself and the article of the newspaper. Due to the volume of the *Bismarck Tribune's* and *Indian Country Today's* articles and postings, I selected a window timeframe of articles from September 2016 to March 2017 to analyze from the 4

newspapers and selected 3 peaks of posts within this timeframe. The *Bismarck Tribune*'s first post on the DAPL was in May 2015, while the *Chicago Tribune* did not begin posting to Facebook about the DAPL until September 2016. *Indian Country Today*'s first post was in April 2016, while the *Cherokee Phoenix* did not post to Facebook until August 2016. A large volume of postings from all 4 newspapers can be found between September 2016 and March 2017, and then the posts begin to taper off.

Within this timeframe, there was a total of 297 posts between the 4 newspapers. To narrow this selection, I selected 3 key dates surrounding the events that occurred, those being December 4, 2016 when President Barack Obama halted the pipeline construction, January 24, 2017 when President Donald Trump issued the Executive Orders for the DAPL and Keystone XL, and February 22, 2017 when the campsite eviction deadline occurred. From these 3 dates, I selected posts with a time window of 15 days before and after the event dates for 2 of the newspapers, *Bismarck Tribune* and *Indian Country Today*, due to the quantity of posts. For the *Chicago Tribune* and *Cherokee Phoenix*, all posts are selected, as there are 20 posts by the *Chicago Tribune* and 19 posts by the *Cherokee Phoenix*. Within the timeframe window, the *Bismarck Tribune* had 53 posts to Facebook, and *Indian Country Today* had 18 posts, giving an estimated sample number of 112. Once this gathering of posts was done, I checked each article link from Facebook to ensure the post lead to an article by the newspaper. The *Chicago Tribune* and *Bismarck Tribune* had several broken links, resulting in a reduction of articles for the content analysis. The *Chicago Tribune* had 19 article posts, and the *Bismarck Tribune* had 41 posts. This gives a final article sample total of 97 articles for the 4 newspapers (see Figure 5).

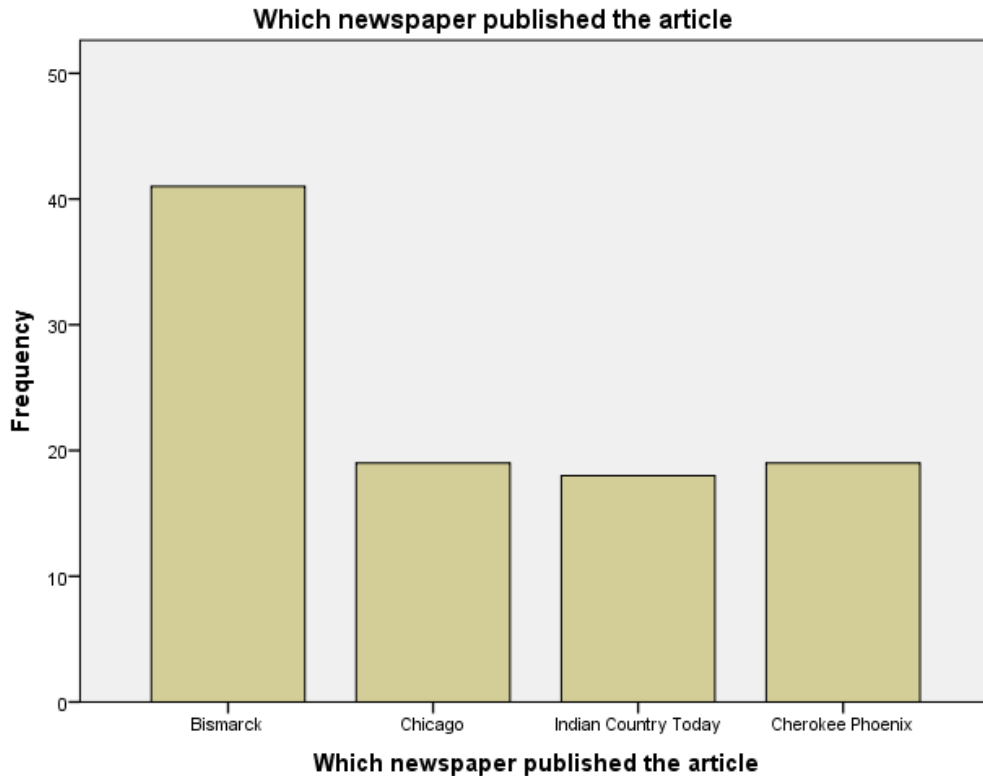


Figure 5: Frequency of Newspaper Article Selection (N = 97)

For stage three, I moved into the content analysis part of the study. I examined the title of the article and the article itself to identify frames within the articles. Descriptive memos, that is short summaries of the contents of the articles, were written for each article using NVivo. First, a priori coding, or predetermined codes from preliminary analysis, was used to code for eco-feminism, environmental racism, and the power structures of government and corporation issues (Creswell, 2014). After this coding, emerging codes were discovered for a second round of coding, including Native Unity, Tribal Rights, and Discussion of Protestors in positive and negative ways (Creswell, 2014).

For the fourth and final stage, I moved to a quantitative analysis of the Facebook emotional reactions and the amount of shares the articles received. The primary interests

of the analysis are which themes and newspapers received the most or least reactions/shares, which reactions are most/least connected to each theme, which reactions are most/least popular for each newspaper and their audience, and which themes are more prominent within each newspaper. These analyses provide data on emotional and frame choices by the newspapers.

With the exploratory parallel research design, the qualitative is collected first to complete the quantitative analysis. The newspaper articles were read multiple times prior to coding to identify the a priori codes. Once the first stage of coding the articles was completed, the second round of codes began to surface, known as emerging codes. Each article was analyzed for codes at least twice by me. Inter-rater reliability was achieved with another graduate student analyzing two random articles. Key words were used in the first round of codes to identify the codes. For example, the codes for Environmental Racism were typically identified within the first round of coding, and phrases such as “pipeline could break and pollute a primary source of drinking water” and “It was moved away from Bismarck because of drinking water concerns and set on the tribes’ doorstep” were coded as Environmental Racism. Each frame and what was used to code it can be found in Appendix A.

Through the second round of coding, an emerging frame was Tribal Rights. Throughout all the newspapers and their articles, mentions of tribal rights, treaty rights, sovereignty and independence were coded. For example, phrases such as “Not only is the mission protecting water, it's become a much broader issue of protecting our rights — civil rights, human rights” and “In the year 2016, we should not continue to trample on Native American sovereignty” were coded as Tribal Rights. Other emerging frames

included Discussion of Protestors and Native Unity between other natives and other races.

Once the coding was completed, variables for each of the codes, or frames, were created in SPSS. Each newspaper article is a case (or N), and the data set has a sample consists of 97 cases. The newspaper frames were operationalized as nominal variables, with two options of 0 and 1. The 0 represents N/A, or the frame not being present within that particular article, and the 1 represents the presence of the frame within the article. For the frames that have two possibilities, such as the Discussion of Protestors having a positive and negative possibility, the data was split into two variables. For this one frame, there are two variables, one named Protestors Discussed Positively and the other named Protestors Discussed Negatively. This process was also done for the frames Native Unity and Power Structures. Native Unity was split into Unity Between Other Natives and Unity Between Other Races. The power structure frame was split into sub-categories including Government Issues, Corporation Issues, and Police Violations (see Table 1). Each of these frames were created in SPSS as nominal variables with options of 0 and 1.

Table 1: Frames

Overarching Frames	Sub-Frames
<i>Social Movements</i>	Eco-Feminism
	Environmental Racism
<i>Power Structures</i>	Government Issues
	Corporation Issues
	Police Violations
<i>Native Unity</i>	Unity With Other Natives

Table 1, continued

	Unity With Other Races
	Tribal Rights
<i>Discussion of Protestors</i>	
	Protestors Discussed Positively
	Protestors Discussed Negatively

Within SPSS, a total of 23 variables were created (Appendix B). These variables include newspaper information, each frame, and the 6 different reactions available on Facebook, and the shares and comments for the posts on Facebook.

Analysis

For the first research question, how the media has framed the DAPL, a content analysis was performed in NVivo. Through first round a priori coding, known frames were coded. Once this first round was complete, second round coding was completed with emerging coding for frames that surfaced during the first round of codes. NVivo automatically counts the amount of articles that the codes are present in and the overall amount of sections coded for each frame. Each large frame, such as, Social Movements, Power Structures, and Native Unity, are called nodes. Within each node are sub-nodes in which the specific frames are coded. For example, the Social Movements node has the sub-nodes of Eco-Feminism and Environmental Racism (see Table 1). Within these nodes, the first sub-question of the first research question, what frames exist, is answered. To answer the second sub-question of the first research question, do diverse newspapers vary in what frames they use, a frequency distribution within SPSS is performed to understand which frames are most and least used by each newspaper.

The second research question, the response to the DAPL by social media, is answered through the quantitative analysis of the data with SPSS. For the three sub-questions for the second research question, what emotional reactions are produced by the newspapers and frames and what frames received the most attention on Facebook, correlations are performed. A correlation measures the statistical relationship of strength and association between two variables. For the first sub-question, the tests are measuring the emotional reactions and the newspaper variables of the date of the post to Facebook, the word count of the article, and the location of the article inside the newspaper. For the second sub-question, the tests are measuring the emotional reactions and the frames and sub-frames inside the articles. For the last sub-question, the tests are measuring the correlation between the frames and the shares and comments received to the postings on Facebook.

RESULTS

How Does the Media Frame the DAPL

The first research question asks how does the media frame the DAPL? Through the coding analysis of the articles, four overarching frames emerged from the 97 articles. These frames are Social Movements, Power Structures, Native Unity, and Discussion of Protestors (see Table 1). Within Social Movements, the sub-frames, or categories, are Eco-Feminism and Environmental Racism. Within the Power Structures frame, Government Issues, Corporation Issues, and Police Violations are found. The frame Discussion of Protestors is split into two sub-frames, one for Protestors Discussed Positively and the other for Protestors Discussed Negatively. The last overarching frame is Native Unity, which includes Tribal Rights, Unity With Other Natives, and Unity With Other Races. The Social Movements and Power Structures frames were a priori codes identified in first round coding. The Native Unity and Discussion of Protestors frames were emerging codes that were noticed in first round coding and were coded in second round coding as emerging codes.

What Frames Exist

The first sub-question of the first research question asks what frames exist in the articles. To explain the frames and sub-frames, quotations from within the articles are used as examples of what was coded under each sub-frame. NVivo, as coding is completed, keeps track of the number of articles each frame is present in, referring to this number as sources. It also keeps track of the amount of times the frame has been coded

and found within the articles, and this is known as the amount of references in all of the articles.

The first sub-frame of Social Movements is Eco-Feminism, which is the involvement of women, primarily minority women, in environmental movements. Through this frame, an analysis of women's involvement with the DAPL and being covered in the news articles was conducted. Specific references were coded if they involved a female in the DAPL protests. For example, in the *Bismarck Tribune* article on November 22, 2016, the article stated "Sophia Wilansky, of New York, is in serious condition, according to staff at Hennepin County Medical Center in Minneapolis". This quotation was coded as Eco-Feminism, as this woman was injured during a DAPL protest in which she was participating. Another reference was made about Sophia in the *Bismarck Tribune* November 25, 2016 article discussing protestors injured during the protest a few days earlier saying, "including a woman who suffered a serious arm injury and now is reportedly in satisfactory condition at a Minneapolis hospital." Politically involved women and Hollywood stars were also involved in protest activities against the DAPL, and on September 8, 2016 the *Chicago Tribune* stated, "A North Dakota judge issued a warrant Wednesday for the arrest of Green Party presidential candidate Jill Stein, who is accused of spray-painting construction equipment during a protest against the Dakota Access pipeline". This quote was coded to Eco-Feminism as Jill Stein is a woman and involved in the movement against the DAPL.

The second sub-frame of Social Movements is Environmental Racism. Quotes included in this frame reference and involve intentional or unintentional environmentally hazardous conditions around minority and lower-income areas. For example, the

Bismarck Tribune featured this frame in their post on November 25, 2016. They stated, “The tribe is in federal court, claiming the corps failed to follow federal law and properly consult the tribe amid concerns the 570,000-barrel capacity pipeline could break and pollute a primary source of drinking water”. The primary reason for the DAPL protests is the potential environmentally hazardous incidents. The *Cherokee Phoenix* also referenced the potential hazards of the pipeline project to minorities on January 20, 2017. They stated the pipeline “threatens drinking water and Native American cultural sites”.

The first sub-frame of Power Structures is Government Issues, which includes all government agencies, at the local, state, and federal levels. The Army Corps of Engineers, North Dakota Governors, and the Presidents of the United States in office during the time frames of the articles. One issue includes the Army Corps not following federal laws when granting the easements to ETP, which can be seen in a *Bismarck Tribune* article from December 1, 2016, which stated, “The tribe’s lawsuit against the corps alleges the agency failed to properly consult with the tribe and follow federal laws including the National Historic Preservation Act”. This is a violation of federal laws and is therefore coded as a Government Issue. Another issue brought up is by the *Cherokee Phoenix* on January 25, 2017 when interviewing a participator in the DAPL protests. The participant was quoted in the article saying, “I’m glad Trump got elected — it wakes people up to government-controlled capitalism”. The issue of intertwinement of government and corporations in America is raised in this quote and whether that has a direct effect on the direction of the DAPL progressing. Another example of the Government Issues frame is brought up by the *Chicago Tribune* on November 26, 2016. The article stated, “Trump also owns between \$100,000 and \$250,000 in Phillips 66,

which has a one-quarter share of Dakota Access”. Prior to taking the Presidency, Donald Trump was to put all his assets into a blind trust, whether this occurred is another research topic. President Trump having direct financial ties to ETP and the DAPL project is a federal violation.

The second sub-frame of Power Structures is Corporation Issues, which involves ETP and potential violations and lies by the corporation. The *Bismarck Tribune* addressed a lie by ETP on December 1, 2016, in an article stating, “Audio released by the Standing Rock Sioux Tribe from a September 2014 meeting with Dakota Access Pipeline representatives contradicts recent claims made by a pipeline company executive”. While ETP had been lying about communicating with the Sioux tribe, this audio recording contradicts their statements. Another example involves the route planning on the DAPL in the early stages of development. The *Indian Country Today* posted an article on December 15, 2016 addressing the route plans of the pipeline, and that the Native communities were left out of the planning entirely. The article stated, “Tribal leaders and environmental activists say the company’s draft environmental assessment of December 9, 2015 did not mention that the route they chose brings the pipeline near the drinking water of tribal citizens. In fact, it omitted the existence of the tribe on all maps and analysis, in violation of environmental justice policies”. This omitting of tribal citizens is a violation by ETP.

The last sub-frame of Power Structures is Police Violations, where unlawful force was used against the DAPL protestors. On November 22, 2016, the *Bismarck Tribune* covered reports from a conflict involving both the police and the protestors. The article stated, “Wayne Wilansky and several involved with the protest are alleging Sophia

Wilansky's injuries were caused by a concussion grenade thrown by police that exploded as it hit her arm while she was delivering water to protesters at 4:30 a.m.”. Later in the same article, the police attempted to dispute this incident, stating, “Iverson said the CS gas canisters thrown by law enforcement officers do make an audible boom, but they do not fragment, making them inconsistent with the shrapnel found in the woman's arm. He also said the canisters were not being used at the same time the woman reported her injury”. The father of Sophia Wilansky gave a statement after this, which also disputes the police and potential cover-up. The article stated, “Wayne Wilansky said at a press conference on Tuesday in Minneapolis that his daughter saw law enforcement throw a grenade ‘right at her’”. This incident, including all three quotes, were coded under Police Violations.

The first sub-frame of Native Unity is Unity With Other Natives. Unity With Other Natives was used to code for relationships between the Standing Rock Sioux and other Native groups in the United States in the fight against the DAPL. Each tribe is an independent and sovereign entity within the borders of the United States, and they tend to be independent and were not involved with each other until the 1960s. The Alcatraz occupation in 1970 and Wounded Knee in 1973 began bringing the Native tribes together in the United States (Kelly, 2014; Kotlowski, 2003; Lake, 1983). The protests of the DAPL are the largest gathering of Native Americans since Wounded Knee and has brought hundreds of Native groups together again. The *Bismarck Tribune* on December 4, 2016 brought up this unity between tribes but was not specific about the ethnicity of the Natives involved. The article stated, “The corps' decision followed several months of protests by the Standing Rock Sioux Tribe, along with members of Native American

tribes from across the country and supporters from the environmental movement”.

However, the *Cherokee Phoenix* specifically mentions the ethnicity of the Native groups involved in an article posted on October 24, 2016. The article stated, “The Cherokee Nation is standing up for the Standing Rock Sioux Tribe and all tribes who deserve a voice and respect”. These two examples were coded for Unity With Other Natives.

For the second sub-frame of Native Unity, Unity With Other Races, codes were created for references to other races supporting the DAPL protests. If there was not a specific mention of Native ethnicity in the unity statements, they were coded under this node. For example, on November 25, 2016, the *Bismarck Tribune* stated, “American war veterans are scheduled to arrive at the camp to stand in solidarity with Standing Rock”. While Natives can also be war veterans, the generalized statement and primary population of the United States gives support for many of these veteran supporters being of non-Native ethnicity provides foundation for this statement to code as Unity Between Other Races. Another example is on September 11, 2016 by the *Chicago Tribune*. The article stated, “Actor and activist Leonardo DiCaprio has also voiced support for the protesters”. Leonardo DiCaprio is not of Native descent but is in support of the Standing Rock Sioux tribe.

The last sub-frame for Native Unity is Tribal Rights. The recognition of tribal rights, sovereignty, and independence as nations is the foundation for Native tribes. For the fight against the DAPL, tribal rights is an important aspect. The *Bismarck Tribune* mentioned this topic on November 25, 2016. The article, referencing the protests and purpose of the fights, stated, “Not only is the mission protecting water, it's become a much broader issue of protecting our rights — civil rights, human rights”. While the

environmental harm is a large aspect in the fight, the foundational land rights of the path of the pipeline and what is considered Army Corp's land, is included in a treaty between the Sioux and the United States government in 1868 (Clark, 2016). The *Cherokee Phoenix* also references tribal rights on January 25, 2017 after President Trump signed his executive orders for the DAPL and Keystone XL. The article stated, "Not completing a study 'would be a gross violation of the tribe's treaty rights,' he said". Tribal rights are the foundation for Native tribes to be sovereign, and to have boundaries between them and the United States government.

Discussion of Protestors is the last overarching frame, which was split into two sub-nodes in NVivo to differentiate between negative and positive framing of the DAPL protestors. First, Protestors Discussed Negatively involves references made about the protestors with negative connotations attached to the references. For example, on November 22, 2016, the *Bismarck Tribune* was discussing the new land acquisition by ETP around the pipeline project. The article stated, "The company has claimed the purchase was necessary due to members of the ongoing protest movement camping near the Standing Rock Sioux Tribe's reservation border, resulting in repeated interruptions to construction activities". Through this statement, ETP is stating they had no choice but to purchase the additional land because of the protestors, creating a negative perception of the protestors of the DAPL. In *Indian Country Today* on February 8, 2017, the press affiliate Jenni Monet was arrested, and she wrote about her time before and during the arrest. The article stated, "The Last Child Camp, the arrests, the raid—it shifted attitudes at a sensitive time at Standing Rock. Personally, as someone who has spent nearly six months writing about the movement, I too have gleaned renewed perspective about the

continued pipeline battle, entirely because of my arrest”. The attitude shift was important to the success or demise of the pipeline fight, and in this case, it went negatively.

The second sub-node focuses on the Protestors Discussed Positively. The *Cherokee Phoenix* captures this node on September 19, 2016 in an interview with a protestor at the campsites. The article stated, “it’s truly peaceful. Being in the middle of nowhere with strangers would normally make me uneasy. Not there. We were welcomed when we entered the camp, told were to register, drop off our donations, and the gentleman said ‘if you need anything go to the brown tent. If we have it, we will give it to you,’ she said. ‘There is nothing commercial there. Everything is free to who needs it. Everyone is very optimistic, even with a serious matter at hand, everyone was happy’”. The statement shows the protestors in a positive way, being giving and concerned with taking care of all those involved, as well as keeping any demonstrations peaceful. In *Indian Country Today* on December 15, 2016, another interview with a protestor involved with the campsites showed a more positive side to the protestors. The article stated, “we want peaceful demonstrations and I need everyone to understand that what we are doing, in the manner we are doing it, is working,’ he said. ‘By being peaceful and avoiding violence we are getting the attention needed to stop the pipeline’”.

The sub-frame in the most articles is the second sub-frame of Social movements, Environmental Racism, which was found in 57 of the 97 articles, with 99 references within these 57 articles. The third sub-frame of Native Unity, Tribal Rights, was found in 47 of the 97 articles, with 133 references in the 47 articles. The second sub-frame of Power Structures, Government Issues, was found in 36 of the 97 articles, with 101 references within the 36 articles. The first sub-frame of Discussion of Protestors,

Protestors Discussed Negatively, was found in 34 of the 97 articles, with 67 references in the 34 articles. The first sub-frame of Power Structures, Corporation Issues, was found in 31 of the 97 articles, with 42 references within the 31 articles. The third sub-frame of Power Structures, Police Violations, was found in 27 of the 97 articles, with 48 references within the 27 articles. The second sub-frame of Native Unity, Unity Between Other Races, was found in 25 of the 97 articles, with 56 references in the 25 articles. The first sub-frame of Native Unity, Unity Between Natives, was found in 23 out of the 97 articles, with 60 references in the 23 articles. The first sub-frame of Social Movements, Eco-Feminism, was found in 17 of the 97 articles, with 31 references within these 17 articles. The least common sub-frame in the articles is the second sub-frame of Discussion of Protestors, Protestors Discussed Positively, which was found in 13 of the 97 articles, with 18 references in the 13 articles.

Overall, the most referenced sub-frame is Tribal Rights, with 113 references in the 47 articles it was coded for. For each article that had the sub-frame Tribal Rights, the frame was coded 2.8 times. The sub-frame in the most articles is Environmental Racism being found in 57 articles. The least common sub-frame is Protestors Discussed Positively, as it only appeared in 13 of the articles. Protestors Discussed Positively is also the least referenced sub-frame as well.

Table 2: Frames Within Articles

	Sources	References
Themes		
<i>Environmental Racism</i>	57	99
<i>Tribal Rights</i>	47	113
<i>Government Issues</i>	36	101
<i>Protestors Negative</i>	34	67

Table 2, continued.

<i>Corporation Issues</i>	31	42
<i>Police Violations</i>	27	48
<i>Unity Between Other Races</i>	25	56
<i>Unity Between Natives</i>	23	60
<i>Eco-Feminism</i>	17	31
<i>Protestors Positive</i>	13	18

Do Various Newspapers Use Different Frames

With the four over-arching frames and ten sub-frames, the next question is whether each newspaper varies in what frames and sub-frames they use when discussing the DAPL. The Social Movement frames, which are Eco-Feminism and Environmental Racism, appear in 63 of the 97 articles (Table 3 and Figure 6). Eight of the articles have both sub-frames present. The *Bismarck Tribune* had eighteen articles with no Social Movements sub-frames present. Five of *Bismarck's* articles had only the Eco-Feminism sub-frame present, and fifteen had only the Environmental Racism sub-frame. Three of *Bismarck's* articles had both sub-frames present. The *Chicago Tribune*, for all 19 articles, at least one sub-frame present. One of *Chicago's* articles had only the Eco-feminism sub-frame, and fourteen had only Environmental Racism present. Four of *Chicago's* articles had both sub-frames. *Indian Country Today* is the least likely to have the Social Movement frames present, as three of the articles had the Eco-feminism sub-frame present and seven articles had the Environmental Racism sub-frame. None of *Indian Country Today's* articles had both sub-frames present. Lastly, the *Cherokee Phoenix* had 5 articles with no Social Movements sub-frames. None of the *Phoenix's* articles had only the Eco-Feminism sub-frame, while thirteen articles had only the

Environmental Racism sub-frame. One *Cherokee Phoenix* article had both Social Movements sub-frames present.

Table 3: Presence of Social Movements sub-frames in articles

Newspaper	No Frames	Eco-Feminism	Environmental Racism	Both Frames
<i>Bismarck Tribune</i>	18	5	15	3
<i>Chicago Tribune</i>	0	1	14	4
<i>Indian Country Today</i>	8	3	7	0
<i>Cherokee Phoenix</i>	5	0	13	1
Totals:	31	9	49	8

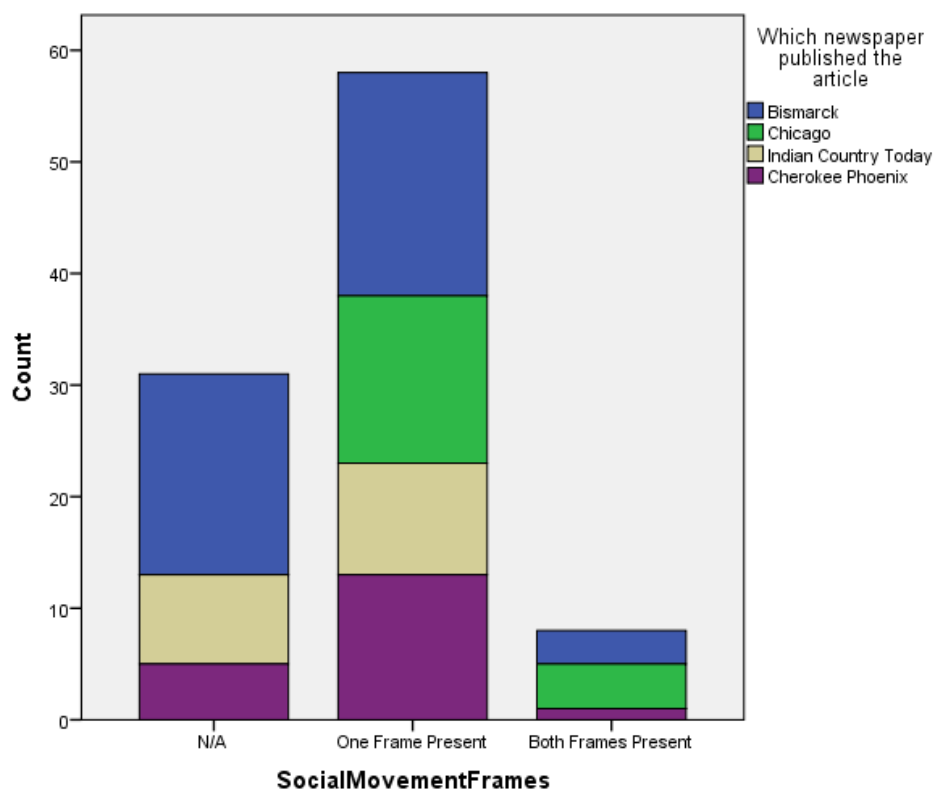


Figure 6: Presence of Social Movements Sub-Frames in Articles

The Power Structures frames consist of Government Issues, Corporation Issues, and Police Violations. These sub-frames appear in over 60 of the 97 articles (Table 4 and Figure 7). Seventeen of the *Bismarck Tribune's* articles had none of the Power Structures

sub-frames. Sixteen of the articles had the sub-frame Government Issues present, ten articles had the Corporation Issues sub-frame, and seven had the Police Violations sub-frame. None of *Bismarck's* articles had all three sub-frames present in the same article. The *Chicago Tribune* had seven articles with no Power Structures sub-frames present. Five of *Chicago's* articles had the Government Issues sub-frame, seven articles had the Corporation Issues sub-frame, and nine had the Police Violations sub-frame. Three of *Chicago's* articles had all sub-frames present. *Indian Country Today* had three articles with no Power Structures sub-frames. Eleven of *Indian Country's* articles had the Government Issues sub-frame present, six had the Corporation Issues sub-frame, and seven had the Police Violations sub-frame. Two of *Indian Country's* articles had all three sub-frames present. The *Cherokee Phoenix* had nine articles with no Power Structures sub-frames. Three of the *Phoenix's* articles had the Government Issues sub-frame, eight articles had the Corporation Issues sub-frame, and four articles had the Police Violations sub-frame. None of the *Phoenix's* articles had all three sub-frames present at once.

Table 4: Presence of Power Structures Sub-Frames in Articles

Newspaper	No Frames	Gov't Issues	Corp Issues	Police Violations	All Three Frames Present
<i>Bismarck Tribune</i>	17	16	10	7	0
<i>Chicago Tribune</i>	7	5	7	9	3
<i>Indian Country Today</i>	3	11	6	7	2
<i>Cherokee Phoenix</i>	9	3	8	4	0
Totals:	36	35	31	27	5

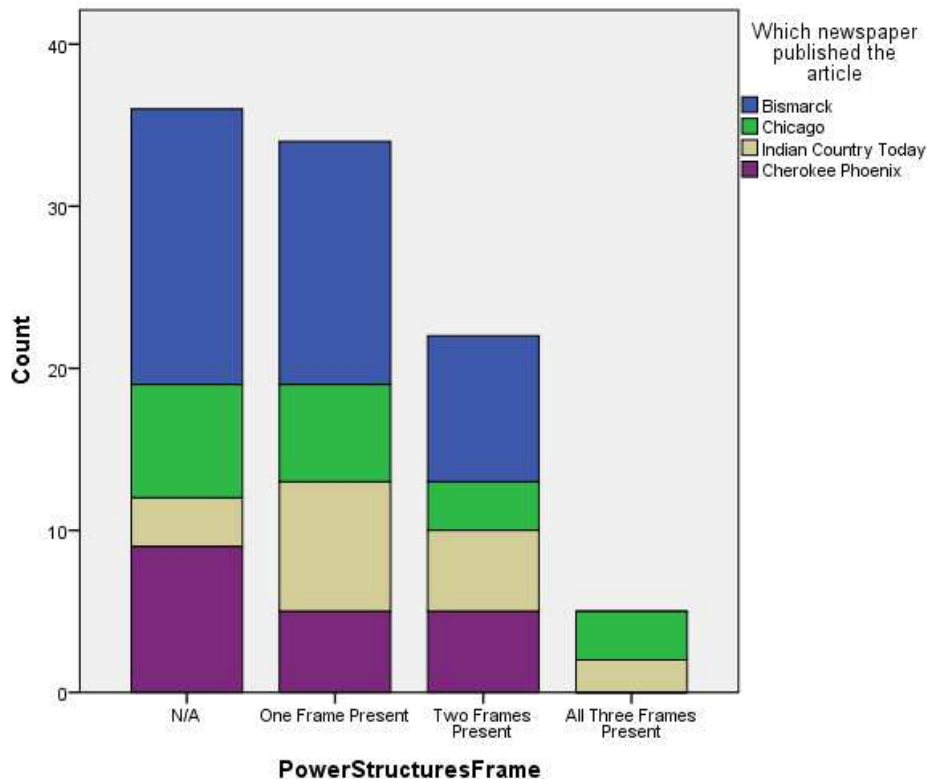


Figure 7: Presence of Power Structures Sub-Frames in Articles

The Native Unity frame consists of Tribal Rights, Unity Between Other Natives, and Unity Between Other Races as sub-frames. Out of the 97 articles, 37 did not have any references to the three sub-frames (Table 5 and Figure 8). The *Bismarck Tribune* had twenty-one articles with no Native Unity sub-frames. Five of *Bismarck's* articles had the Unity Between Other Natives sub-frame, eight articles had the Unity Between Other Races sub-frame, and seventeen articles had the Tribal Rights sub-frame. Only one of *Bismarck's* articles had all three Native Unity sub-frames present. The *Chicago Tribune* had eight articles with no Native Unity sub-frames present. Three of *Chicago's* articles had the Unity Between Other Natives sub-frame, seven had the Unity Between Other Races sub-frame, and eight had the Tribal Rights sub-frame. One of *Chicago's* articles

had all three Native Unity sub-frames present. *Indian Country Today* had five articles with no Native Unity sub-frames present. Four of *Indian Country's* articles had the Unity Between Natives sub-frame, four articles had the Unity Between Other Races sub-frame, and eleven articles had the Tribal Rights sub-frame. Only one of *Indian Country's* articles had all three Native Unity sub-frames present. The *Cherokee Phoenix* had three articles with no Native Unity sub-frames. Eleven of the *Phoenix's* articles had the Unity Between Other Natives sub-frame, six articles had the Unity Between Other Races sub-frame, and eleven had the Tribal Rights sub-frame. Four of the *Phoenix's* articles had all three of Native Unity's sub-frames present.

Table 5: Presence of Native Unity Sub-Frames in Articles

Newspaper	No Frames	Unity Between Natives	Unity Between Races	Tribal Rights	All Three Frames Present
<i>Bismarck Tribune</i>	21	5	8	17	1
<i>Chicago Tribune</i>	8	3	7	8	1
<i>Indian Country Today</i>	5	4	4	11	1
<i>Cherokee Phoenix</i>	3	11	6	11	4
Totals:	37	23	25	47	7

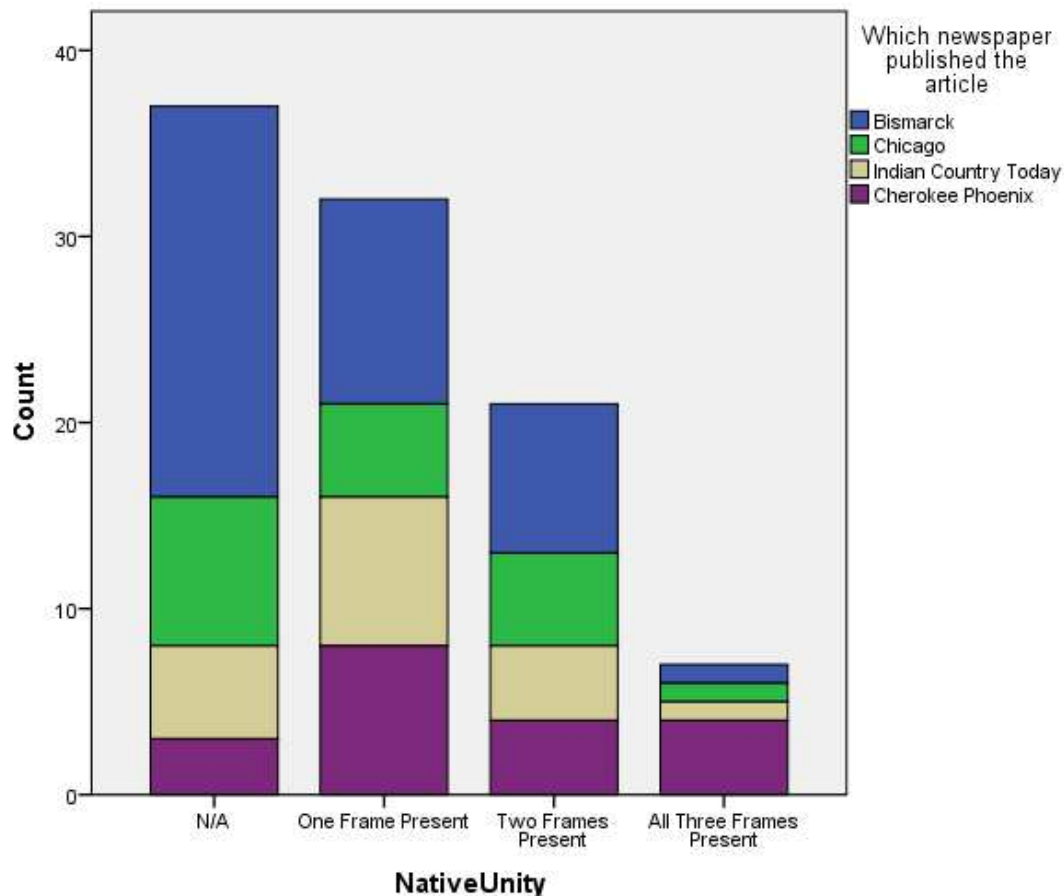


Figure 8: Presence of Native Unity Sub-Frames in Articles

The last frame is the Discussion of Protestors, which includes the sub-frames of Protestors Discussed Positively and Protestors Discussed Negatively. Overall, fifty-six articles did not frame the protestors in a negative or positive way when discussing their actions (Table 5 and Figure 8). Twenty-three of the *Bismarck Tribune* articles did not reference the protestors in either way. Sixteen of *Bismarck's* articles discussed the protestors negatively, with no articles referencing the protestors in only a positive way. Two of *Bismarck's* articles referenced the protestors negatively and positively. The *Chicago Tribune* had nine articles that did not reference the protestors negatively or positively. Seven articles discussed the protestors only negatively, and only one article

discussed the protestors only positively. Two of *Chicago's* articles had positive and negative references towards the protestors in them. Eleven of the *Indian Country Today* articles did not reference the protestors in a positive or negative way. Two of *Indian Country's* articles referenced the protestors in only a negative way, while four articles discussed the protestors only positively. One of *Indian Country's* articles had negative and positive references towards the protestors. Thirteen of the *Cherokee Phoenix* articles did not have any references to the protestors in a positive or negative way. Four of the *Phoenix's* articles referenced the protestors only negatively, while two articles had only positive references. None of the *Phoenix's* articles referenced the protestors in both ways.

Table 6: Presence of Discussion of Protestors Sub-Frames in Articles

Newspaper	No Frames	Protestors Negative	Protestors Positive	Both Frames
<i>Bismarck Tribune</i>	23	16	0	2
<i>Chicago Tribune</i>	9	7	1	2
<i>Indian Country Today</i>	11	2	4	1
<i>Cherokee Phoenix</i>	13	4	2	0
Totals:	56	29	7	5

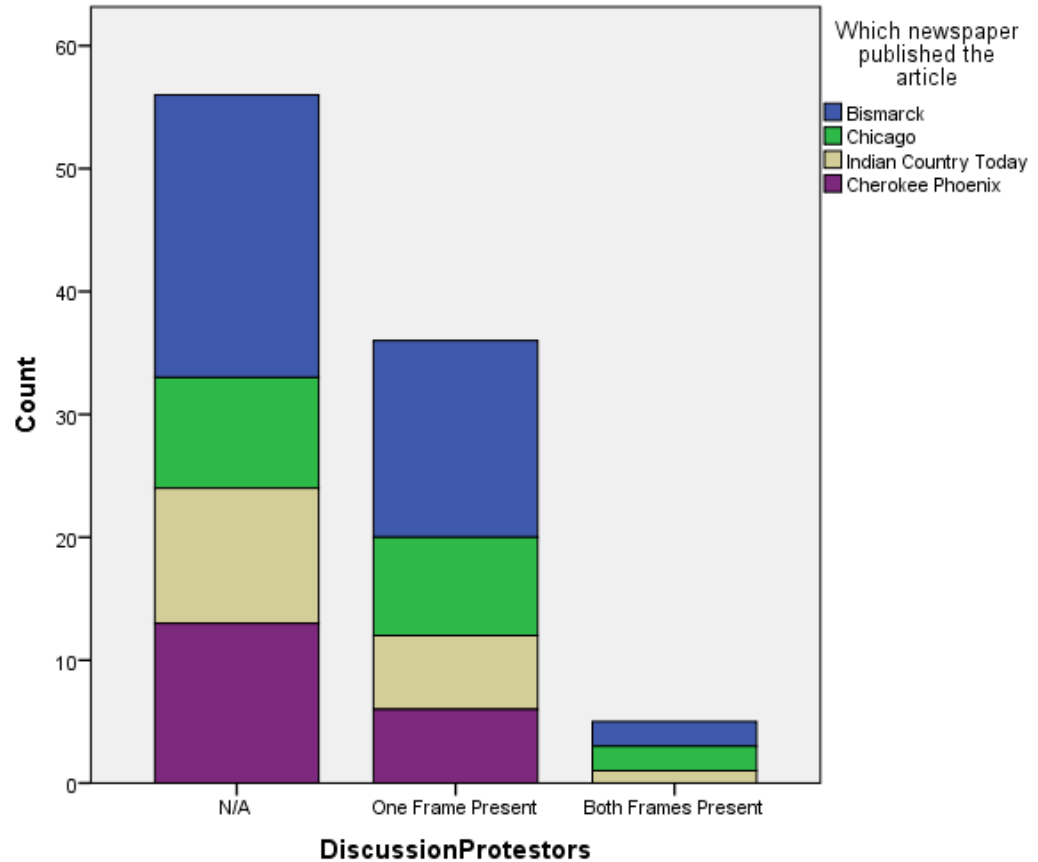


Figure 9: Discussion of Protestors Sub-Frames in Articles

With four large frames and ten sub-frames, only five articles did not have any frames within them (Table 7 and Figure 10). One article had eight sub-frames present, which was written by the *Chicago Tribune*. Twenty-four articles had three sub-frames present, and this is the most common number of sub-frames within each of the articles. Thirteen articles had one sub-frame within them, eighteen articles had two sub-frames within them, sixteen articles had four sub-frames within them, seven articles had five sub-frames within them, eleven articles had six sub-frames within them, and two articles had seven sub-frames within them.

All the *Chicago Tribune* articles had at least one frame present in each of the articles, and in one of those articles there are eight frames present (Table 7 and Figure 10). There was one article for each of the *Cherokee Phoenix* and *Indian Country Today* that did not have any frames present, and three of the *Bismarck Tribune* articles did not have any frames present. Ranging from two to six frames within an article is rather evenly spread across the newspapers, with three frames in the articles being the peak amount present. Only the *Bismarck Tribune* and *Chicago Tribune* had seven frames present in one article by each paper.

Table 7: All Sub-Frames Present in Articles

<i>Amount of Frames</i>	<i>Bismarck Tribune</i>	<i>Chicago Tribune</i>	<i>Indian Country Today</i>	<i>Cherokee Phoenix</i>	Total
<i>No Frames</i>	3	0	1	1	5
<i>1 Frame</i>	8	1	2	2	13
<i>2 Frames</i>	9	4	2	3	18
<i>3 Frames</i>	10	5	5	4	24
<i>4 Frames</i>	6	3	3	4	16
<i>5 Frames</i>	2	1	2	2	7
<i>6 Frames</i>	2	3	3	3	11
<i>7 Frames</i>	1	1	0	0	2
<i>8 Frames</i>	0	1	0	0	1
Total	41	19	18	19	97

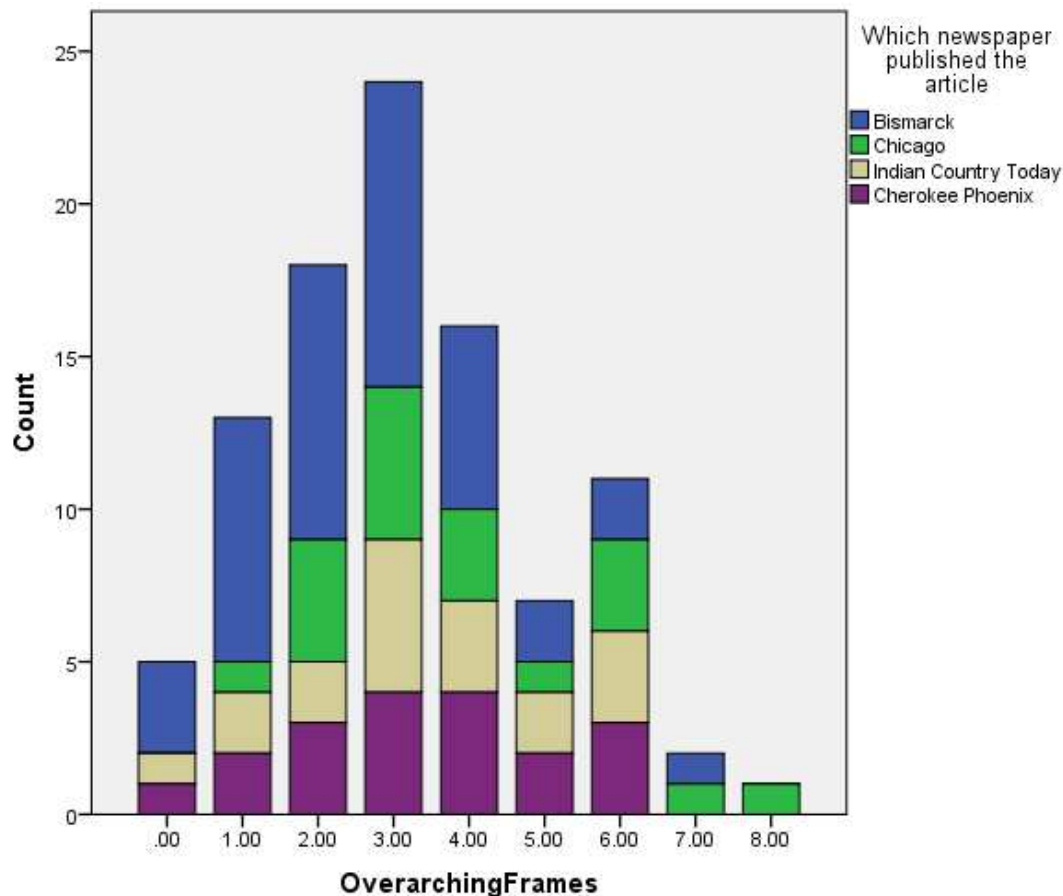


Figure 10: Presence of Multiple Sub-Frames in Articles

Summary

The four newspapers do vary in what frames they use when discussing the DAPL (Table 8). The *Bismarck Tribune* has a prominent presence of the Power Structures and Discussion of Protestors sub-frames. While none of *Bismarck's* articles had all three sub-frames present at once, multiple articles had two Power Structures sub-frames. Eighteen of *Bismarck's* articles had the frame Discussion of Protestors present, with sixteen of those articles only have the sub-frame for Protestors Discussed Negatively. The other two articles had both sub-frames present. The *Bismarck Tribune*, when discussing protestors, prominently focuses on the negatives of the protestors.

The *Chicago Tribune* has a prominent presence of Social Movements and Power Structures sub-frames. Fourteen of *Chicago's* articles had the Environmental Racism sub-frame, and one article had the Eco-Feminism frame. This means fifteen of *Chicago's* nineteen articles had Social Movement sub-frames in their articles. Three of *Chicago's* articles contain all three Power Structures sub-frames. While seven of *Chicago's* articles do not have any Power Structures sub-frames, the other nine articles have at least one Power Structure's sub-frame present.

Indian Country Today has the frames Power Structures and Native Unity prominent in their articles. Three of *Indian Country's* articles have no Power Structures sub-frames, while the other fifteen articles have at least one sub-frame present. Native Unity sub-frames are in thirteen out of eighteen articles. The most prominent Native Unity sub-frame in *Indian Country* is Tribal Rights.

The *Cherokee Phoenix* has the frames Social Movements and Native Unity. Five of the *Phoenix's* articles have no Social Movements sub-frames, thirteen of the articles discuss Environmental Racism, and the last article has both sub-frames present. None of the *Phoenix's* articles only discuss Eco-Feminism. The frame Native Unity is found in sixteen of the *Phoenix's* nineteen articles. Four of the sixteen articles contain all three Native Unity sub-frames. Of the sixteen articles, eleven have the sub-frame Tribal Rights, which is the most prominent Native Unity sub-frame in the *Cherokee Phoenix*.

Not only do the newspapers vary in the frames they use, but depending on the press, whether the newspaper is American or Native American, effects what frames are used in the articles. The Native American newspapers use the Native Unity frame more often than the American newspapers. When the different newspapers discuss the

protestors, the American newspapers focus on the sub-frame Protestors Discussed Negatively while the Native American newspapers use the sub-frame Protestors Discussed Positively more often. The Social Movements and Power Structures frames are in Native American newspapers, but the sub-frames vary by newspaper. The Social Movements sub-frame Eco-Feminism is found in the American presses more often. The sub-frame Environmental Racism is evenly distributed between the presses, as the primary issues of the DAPL are centered on the environment. The Power Structures frame is within all the newspapers. However, the Native American presses have fewer articles with no sub-frames present (Table 4).

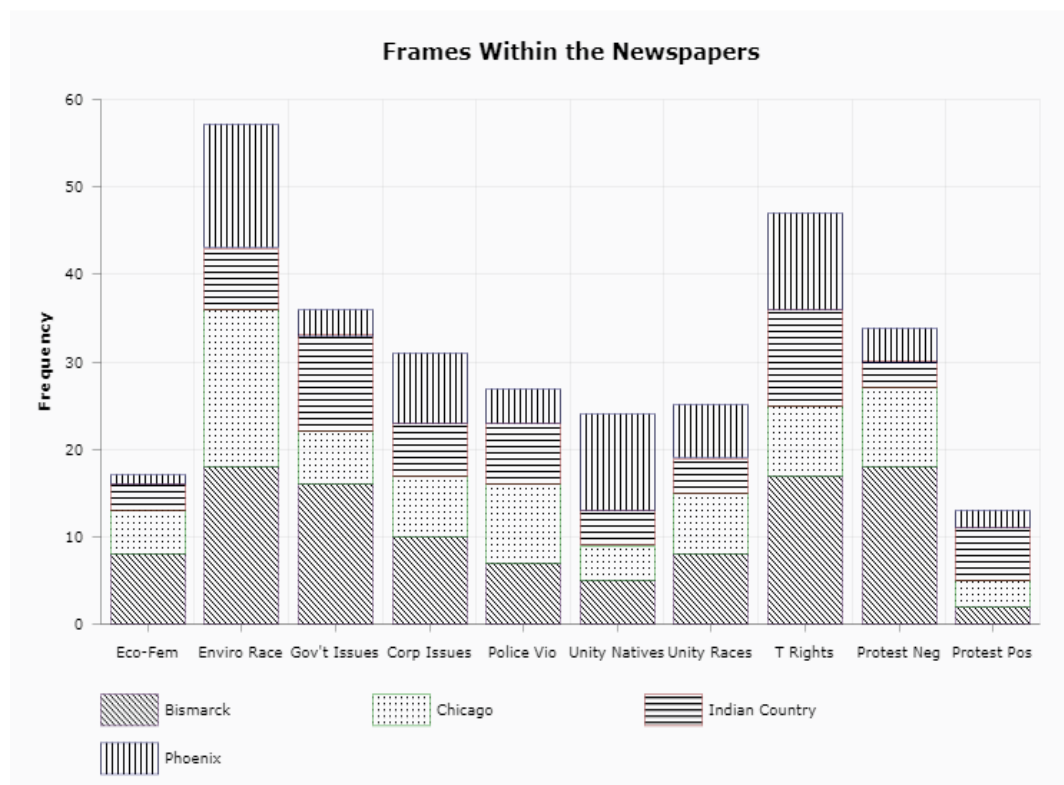


Figure 11: Frames Within Each Newspaper

Social Media's Response to the DAPL

The second research question is what is social media's response to the framing of the DAPL? To answer this question, three sub-questions were addressed. The first sub-question is what emotional reactions are produced by each newspaper? This question analyzes whether different newspapers receive different emotional reactions on Facebook. The second sub-question is what emotional reactions are produced by each frame? This question analyzes whether the different frames within the articles receive different emotional reactions on Facebook. The third sub-question is what frames received the most attention on social media by shares and comments? This question analyzes whether different frames received additional attention compared to others on Facebook.

Emotional Reactions by Newspaper

The first sub-question is what emotional reactions are produced by each newspaper? Four variables were created for the newspaper postings. These variables include which newspaper posted the article, the date the article was posted, the word count of the article, and the location of the article within the newspaper. Through the analysis, I am looking for correlations, whether positive or negative, between the newspaper posting variables and the emotional reactions received. Correlations were used to test the linear relationship between the variables and to test for the strength and direction of the relationships between the newspaper variables and emotional reactions. Correlations were ran with three of the newspaper variables as the independents, which

are the date of the post, the word count of the article, and the location of the article within the newspaper. The dependent variables are the emotional reactions, including like, love, laugh, wow, sad, and angry. A recoded variable that included all the emotional reactions is also included to explain the overall emotional reactions to the three newspaper variables. To understand the newspaper variables and emotional reactions by newspaper, a layer variable was added. The layer variable is which newspaper published the story.

The *Bismarck Tribune* has no significant correlation for the newspaper variable for date of post and the emotional reactions (Table 8). The date of the posting is an ordinal variable, keeping the dates in order. For the emotional reactions of like, love, laugh, wow, angry, and the recoded variable, the correlation is positive, indicating that the dates for August 2016 to December 2016, when President Obama was in office, are more likely to receive these reactions. The sad reaction has a negative correlation with the date of the article being posted to Facebook. When the articles were posted to Facebook between January 2017 and March 2017, which is when President Trump had taken office, the sad reactions is more likely to occur, during these dates than in the August 2016 to December 2016 timeframe.

The word count variable does not create significant emotional reactions for the *Bismarck Tribune*. The emotional reactions of like, love, laugh, wow, and the recoded variable have a positive correlation with the word count variable. The longer the article the more likely these emotional reactions are to appear. The emotional reactions of sad and angry have a negative correlation with the word count of the articles. The shorter the article, the more likely these emotional reactions are to appear.

The location of the article within the newspaper has one emotional reaction that was significant for the *Bismarck Tribune*. All articles posted to Facebook from *Bismarck* are located within two sections of the newspaper – State & Regional and Local News. The location of the article and the angry reaction are positively significant. When the article is posted in Local News, the angry reaction is more likely to occur in the *Bismarck Tribune*. All emotional reactions are positively correlated with the location of the article in the newspaper. Overall, the location of the article within in *Bismarck's* newspaper does not determine the emotional reactions, as they are all positively correlated.

The *Chicago Tribune* does not have a significant correlation for the emotional reactions and the date of the article being posted to Facebook (Table 8). The emotional reactions of like, love, and the recoded variable are all positively correlated with the date of the post falling between August 2016 and December 2016, which is when President Obama was in office and making decisions. The emotional reactions of laugh, wow, sad, and angry are negatively correlated, as these reactions were more likely to occur on articles posted to Facebook between January 2017 and March 2017, which is when President Trump had taken office and was making decisions. Depending on the date of the post, these reactions are less likely to appear on *Chicago's* Facebook postings.

The word count of *Chicago's* articles is not significantly correlated with the emotional reactions. The word count of the article is negatively correlated with all of the emotional reactions, including the recoded variable. As the word count increases for the article, the less likely the emotional reactions are to occur. When the *Chicago Tribune* posts longer articles on Facebook, the likelihood of receiving emotional reactions decreases, regardless of what emotional reaction is analyzed.

The location of the article in the *Chicago Tribune* is significantly and negatively correlated for the laugh reaction. When the article is posted under the section Local News, the laugh reaction occurs more on these articles than other sections of the newspaper. All other emotional reactions are positively correlated with the location of the article in the newspaper, such as Nation & World and the Business section.

The date of the posting for the newspaper *Indian Country Today* has a significant positive correlation with the like and love emotional reactions (Table 8). When the article was posted between August 2016 and December 2016, when President Obama was in office and making decisions, these emotional reactions are more likely to occur. The rest of the emotional reactions, laugh, wow, sad, and angry, are negatively correlated with the date of the post. When the articles were posted between January 2017 and March 2017, when President Trump is in office and making decisions, these reactions are less likely to occur.

The word count of *Indian Country Today's* articles does not have a significant correlation with the emotional reactions. However, as the word count increases for the articles, the emotional reactions of love, laugh, wow, and angry are less likely to occur. The like and sad reactions are positively correlated with the word count of the articles.

The location of the article in *Indian Country Today* has a significant negative correlation with the laugh variable. When the article is posted in Native News and the Politics sections, the laugh reaction is less likely to occur. The emotional reactions of like, love, wow, and the recode variable are also negatively correlated with the location of the article, as they are more likely to occur on the Native News and Politics articles. The sad and angry reactions are positively correlated with the location of the article in the

newspaper, as they are more likely to occur on the Opinion and Arts & Entertainment articles.

The *Cherokee Phoenix's* date of postings is not significant (Table 8). However, the like and love reactions are positively correlated with the date of the posts. The articles posted to Facebook between August 2016 and December 2016, when President Obama was in office, the posting was more likely to receive the like and love reactions. The reactions of laugh, wow, sad, and angry are negatively correlated with the date of the postings. When the articles were posted in January 2017 and March 2017, when President Trump was in office, the laugh, wow, sad, and angry reactions were more likely to occur.

The word count of the *Phoenix's* articles is positively correlated with all emotional reactions except the like and recoded variable. The love and sad reactions are half positively and half negatively correlated depending on which test is observed. The laugh, wow, and angry reactions are positively correlated with the word count of the articles. The longer the article is word count wise, the more likely the laugh, wow, and angry reactions are to occur.

The location of the article in the newspaper is insignificant and cannot be calculated for the *Cherokee Phoenix*, as the newspaper did not have that information available. The *Cherokee Phoenix* is a smaller paper and does not have different sections for news stories unlike the other three newspapers. While the other newspapers posted stories under the local, world news, political, business, and other normal newspaper sections, the Phoenix does not have separate their news stories into these categories.

Table 8: Correlations for Emotional Reactions & Newspaper Variables

<i>Bismarck Tribune</i>	Date of Post	Word Count of article	Location in Newspaper
<i>Like Reaction</i>	.164	.055	.110
<i>Love Reaction</i>	.164	.187	.066
<i>Laugh Reaction</i>	.023	.158	-.007
<i>Wow Reaction</i>	.209	.125	.084
<i>Sad Reaction</i>	-.039	-.122	.302
<i>Angry Reaction</i>	.137	-.025	.339*
<i>All Reactions (Recode)</i>	.173	.066	.147
<i>Chicago Tribune</i>	Date of Post	Word Count	Location in Newspaper
<i>Like Reaction</i>	.232	.011	.336
<i>Love Reaction</i>	.095	.009	.234
<i>Laugh Reaction</i>	-.243	-.451	-.548*
<i>Wow Reaction</i>	.179	-.072	.004
<i>Sad Reaction</i>	-.231	-.073	.089
<i>Angry Reaction</i>	-.124	-.130	.000
<i>All Reactions (Recode)</i>	.018	-.096	.179
<i>Indian Country Today</i>	Date of Post	Word Count	Location in Newspaper
<i>Like Reaction</i>	.600**	.228	-.169
<i>Love Reaction</i>	.682**	-.069	-.076
<i>Laugh Reaction</i>	-.087	-.273	-.609**
<i>Wow Reaction</i>	-.137	-.280	-.096
<i>Sad Reaction</i>	-.351	.164	.161
<i>Angry Reaction</i>	-.348	-.183	.017
<i>All Reactions (Recode)</i>	.319	.085	-.141
<i>Cherokee Phoenix</i>	Date of Post	Word Count	Location in Newspaper
<i>Like Reaction</i>	.167	-.019	.
<i>Love Reaction</i>	.123	.064	.
<i>Laugh Reaction</i>	-.273	.040	.
<i>Wow Reaction</i>	-.319	.018	.
<i>Sad Reaction</i>	-.421	-.023	.
<i>Angry Reaction</i>	-.385	.125	.
<i>All Reactions (Recode)</i>	.146	-.007	.

(N = 97; P < .05 = *, P < .01 = **, P < .001 = ***)

Summary

Each newspaper besides the *Cherokee Phoenix* has significant correlations with the emotional reactions received (Table 9). The *Bismarck Tribune* has a significantly

positive correlation with the angry emotional reaction and the location of the article within the newspaper. When the articles were posted under the Local News section instead of State & Regional, the angry reaction is more likely to occur on the Facebook posting. The *Chicago Tribune* has significantly negative correlation between the laugh reaction and the location of the article within the newspaper. When the article is posted in the Local News and Nation & World sections, the laugh reaction occurs more than in the Business section. *Indian Country Today* has significant correlations for two newspaper variables. First, the date of the article being posted to Facebook has a significantly positive correlation with the like and love reaction. When the article was posted between August 2016 and December 2016, when President Obama was in office, the like and love reaction are more likely to occur. The dates that were analyzed and that have significantly higher like and love reactions are in December 2016. Second, the location of the article within the newspaper has a significantly negative correlation with the laugh reaction. When the article is in Native News and Politics sections, the laugh reaction is more likely to occur than for the Opinion and Arts & Entertainment sections.

Table 9: Summary for Correlations for Emotional Reactions & Newspaper Variables

	Date of Post	Word Count of Article	Location in Newspaper
<i>Bismarck Tribune</i>			
<i>Angry Reaction</i>			+*
<i>Chicago Tribune</i>			
<i>Laugh Reaction</i>			-*
<i>Indian Country Today</i>			
<i>Like Reaction</i>	+**		
<i>Love Reaction</i>	+**		
<i>Laugh Reaction</i>			-**

Emotional Reactions by Frames

The second sub-question is what emotional reactions are produced by each frame? Variables were created for each of the sub-frames and recodes were done to group the sub-frames into the frame categories. The first recoded variable was for the Social Movements frame, and that included the variables for the sub-frames Eco-Feminism and Environmental Racism. The second recoded variable was for the Power Structures frame, which includes the sub-frames Government Issues, Corporation Issues, and Police Violations. The third recoded variable was for the Native Unity frame, and that variable includes the sub-frames Unity Between Other Natives, Unity Between Other Races, and Tribal Rights. The fourth recoded variable was for the Discussion of Protestors frame, which includes the sub-frames Protestors Discussed Negatively and Protestors Discussed Positively.

The *Bismarck Tribune* does not have a significant correlation for the Social Movements frame and the emotional reactions received but does have one sub-frame significant (Table 10). There is a positive correlation between the emotional reactions and the Social Movements frame, as all the reactions correlations are positive. When the Social Movements frame is present in *Bismarck's* articles, the posting is more likely to receive emotional reactions on the Facebook posting. Within the Social Movements frame are the two sub-frames Eco-Feminism and Environmental Racism. The sub-frame Environmental Racism has a significantly positive correlation with the sad reaction. When the sub-frame Environmental Racism is in *Bismarck's* articles, the sad reaction is significantly more likely to occur on the posting.

There is a significantly positive correlation for the frame Power Structures and two of its sub-frames in the *Bismarck Tribune*. The Power Structures frame and the love emotional reaction are significantly correlated. The emotional reactions of like, laugh, wow, angry, and the recoded variable are all positively correlated for the Power Structures frame. If the Power Structures sub-frames are present in the articles, the like, love, laugh, wow, and angry reactions are more likely to occur on the posting. The sad reaction is negatively correlated with Power Structures. If the Power Structures sub-frames are present in the articles, the sad reaction occurs less on the postings. The sub-frame Government Issues has a significantly positive correlation with the love reaction. When the sub-frame Government Issues is present, the love reaction is more likely to occur on the posting. The second sub-frame with a significantly positive correlation is Police Violations. The recoded reaction variable, which includes all the emotional reactions, is positively correlated with Police Violations. When the sub-frame Police Violations is present, the emotional reactions are more likely to occur on the Facebook posting.

The *Bismarck Tribune* has a significantly positive correlation for the frame Native Unity and one of its sub-frames. The love reaction is positively correlated with the Native Unity sub-frames being present in the articles. There is a positive correlation for the Native Unity frame and the emotional reactions of like, laugh, sad, angry, and the recoded variable. If the Native Unity frame is present, the like, laugh, sad, and angry are likely to occur on the posting. The emotional reaction of wow is negatively correlated with the Native Unity frame. If the Native Unity frame is present, then the wow reaction is not likely to occur on the posting. The sub-frame Tribal Rights has a significantly

positive correlations with the emotional reactions of like and love, as well as the recoded emotional reaction variable. When Tribal Rights is in *Bismarck's* articles, the like and love reactions are more likely to occur on the posting.

The Discussion of Protestors frame is not significant for the *Bismarck Tribune*. However, there is a positive correlation for the presence of the Discussion of Protestors frame and the emotional reactions of wow and angry. When the *Bismarck Tribune* articles are discussing the protestors, the emotional reactions of wow and angry are more likely to occur. There is a negative correlation for the emotional reactions of like, love, laugh, sad, and the recoded variable. These emotional reactions are less likely to occur in articles with the frame Discussion of Protestors.

The *Chicago Tribune* is not significant when analyzing the Social Movements frame and the emotional reactions. All the emotional reactions have a negative correlation with the Social Movements frame. When *Chicago's* articles have this frame, the emotional reactions are less likely to occur.

The Power Structures frame is significant for the *Chicago Tribune*, but the sub-frame Government Issues is. The frame Power Structures has an overall positive correlation with the emotional reactions. When the Power Structures frame is present in *Chicago's* articles, the emotional reactions are likely to occur except for the love and laugh reactions. The sub-frame Government Issues has significantly positive correlation with the like and love reactions, as well as the recoded emotional reaction variable. When Government Issues are discussed in *Chicago's* articles, the like and love reactions are more likely to occur on the Facebook posting.

The Native Unity frame is not significant for the *Chicago Tribune*. All the emotional reactions are negatively correlated with the Native Unity frame. If the Native Unity frame is present in the articles, the emotional reactions are less likely to occur.

The Discussion of Protestors frame is not significant for the *Chicago Tribune*. The emotional reactions like, love, and laugh are negatively correlated with the Discussion of Protestors. If this frame is in the *Chicago Tribune's* articles, these emotional reactions are less likely to occur. The emotional reactions of wow, sad, and angry are positively correlated with the Discussion of Protestors frame. If this frame is present in the articles, the wow, sad, and angry reactions are more likely to occur.

The Social Movements frame is not significant for *Indian Country Today*, but the sub-frame Eco-Feminism is. The emotional reactions of like and love are positively correlated with the Social Movements frame presence in the articles. If this frame is present, the like and love reactions are more likely to occur. The emotional reactions of laugh, wow, sad, and angry are negatively correlated with the Social Movements frame. If this frame is present, the emotional reactions of laugh, wow, sad, and angry are less likely to occur. The recoded emotional reaction variable gives an interesting perspective to the Social Movements frame and the emotional reactions. Pearson's R has a value of .016 and the Spearman Correlation has a value of .000. For the Social Movements frame in *Indian Country Today* articles, the relationship between the two is barely positive and truly not correlated. The sub-frame Eco-Feminism has significantly positive correlation with the wow reaction. When *Indian Country's* articles contain the sub-frame Eco-Feminism, the wow reaction is more likely to occur on the posting.

The Power Structures frame in *Indian Country Today* articles is not significant, but the sub-frame Corporation Issues is. The emotional reactions of like, wow, sad, angry, and the recoded variable are positively correlated with the Power Structures frame. If this frame is present in the article, the emotional reactions like, wow, sad, and angry are likely to occur. The emotional reactions of love and laugh are negatively correlated with the Power Structures frame. If this frame is present in the articles, the love and laugh reactions are less likely to occur. The sub-frame Corporation Issues has a significantly positive correlation with the like and love reactions in *Indian Country's* articles. When the articles contain the Corporation Issues sub-frame, the like and love reactions are significantly more likely to occur.

The Native Unity frame in *Indian Country Today* has a significantly negative correlation with the emotional reactions of wow and angry. When the Native Unity frame is present in the articles, the wow and angry reactions are significantly less likely to occur on the posting. The other emotional reactions of laugh and sad are also negatively correlated. The emotional reactions of like and love are also positively correlated. The emotional reactions of like and love are positively correlated with the Native Unity frame. When the Native Unity frame is present in the articles, the like and love reactions are likely to occur.

The Discussion of Protestors frame in *Indian Country Today* does not have significant correlations with the emotional reactions. The emotional reactions of like, love, sad, and the recoded reaction variable are positively correlated with the Discussion of Protestors frame. The emotional reactions of laugh, wow and angry are negatively

correlated with the Discussion of Protestors frame. If this frame is present in the articles, the laugh, wow, and angry reactions are less likely to occur.

The *Cherokee Phoenix* does not have a significant correlation with the Social Movements frame and emotional reactions. There is a positive correlation between the frame and the reactions of like, love, wow, sad, angry, and the recoded variable. When the Social Movements frame is present in the *Phoenix's* articles, the emotional reactions of like, love, wow, sad, and angry are likely occur. The emotional reaction of laugh is negatively correlated with the Social Movements frame. When the frame is present in the articles, the laugh reaction is not likely to occur.

The Power Structures frame is not significant for the *Cherokee Phoenix*. There is a positive correlation between the Power Structures frame and the emotional reactions of wow, sad, and angry. When the Power Structures frame is present in the articles, the reactions wow, sad, and angry are likely to occur. There is a negative correlation between the Power Structures frame and the reactions of like, love, laugh, and the recoded variable. When the Power Structures frame is present, the like love, and laugh reactions are not likely to occur.

The frame Native Unity is significantly correlated in the *Cherokee Phoenix*, as well as one its sub-frames. The love reaction is significantly and positively correlated with the frame. When Native Unity is present in the *Phoenix's* articles, the love reaction is more likely to occur. The other emotional reaction of like is also positively correlated with the Native Unity frame. The emotional reactions of laugh, wow, sad, and angry are negatively correlated with the Native Unity frame. When the Native Unity frame is present in the articles, the laugh, wow, sad, and angry reactions are not likely to occur on

the posting. The sub-frame Unity Between Other Natives has a significantly negative correlation with the wow and sad reactions. When the *Phoenix's* articles contain the sub-frame Unity Between Other Natives, the wow and sad reactions are less likely to occur on the Facebook posting.

The Discussion of Protestors frame is significantly correlated in the *Cherokee Phoenix*, as well as one of its sub-frames. The wow and sad reactions are positively correlated with the Discussion of Protestors frame. When the Discussion of Protestors frame is present in the articles, the wow and sad reactions are more likely to occur. The emotional reaction angry is also positively correlated with the Discussion of Protestors frame. The emotional reactions of like, love and laugh are negatively correlated. When the frame appear in the articles, the reactions like, love, and laugh are not likely to occur. The sub-frame Protestors Discussed Negatively has a significantly positive correlation with the emotional reactions of wow, sad, and angry. When the *Phoenix's* articles discuss the protestors in a negative way, the reactions wow, sad, and angry are more likely to occur on the Facebook posting.

Table 10: Correlations for Emotional Reactions & Frames

<i>Bismarck Tribune</i>	Like	Love	Laugh	Wow	Sad	Angry	All Reactions
<i>Social Movements</i>	.248	.238	.240	.096	.017	.045	.252
<i>Eco-Feminism</i>	.103	.007	.097	.160	.317*	.049	.111
<i>Environmental Racism</i>	.226	.290	.219	-.008	-.232	.017	.223
<i>Power Structures</i>	.266	.333*	.075	.099	-.106	.009	.261
<i>Gov't Issues</i>	.247	.312*	.134	.034	-.198	.020	.242
<i>Corp Issues</i>	-.071	.106	-.165	-.022	-.217	-.145	-.080
<i>Police Violations</i>	.306	.157	.169	.185	.286	.159	.313*

Table 10, continued

<i>Native Unity</i>	.271	.489***	.280	-.081	-.039	.083	.295
<i>Unity Natives</i>	-.005	.275	.084	-.126	.011	.119	.035
<i>Unity Races</i>	.132	.220	.248	-.119	.061	-.017	.142
<i>Tribal Rights</i>	.368*	.491***	.231	.039	-.125	.078	.375*
<i>Discussion of Protestors</i>	-.109	-.034	-.114	.274	-.045	.300	-.067
<i>Protestors Negative</i>	-.148	-.093	-.159	.262	-.048	.276	-.110
<i>Protestors Positive</i>	.043	.122	.054	.148	-.014	.186	.071
Chicago Tribune	Like	Love	Laugh	Wow	Sad	Angry	All Reactions
<i>Social Movements</i>	-.323	-.285	-.111	-.122	-.235	-.257	.016
<i>Eco-Feminism</i>	-.339	-.302	-.191	-.165	-.267	-.305	-.415
<i>Environmental Racism</i>	.080	-.173	.174	.103	-.150	.131	.145
<i>Power Structures</i>	.160	-.089	-.140	.058	.226	.125	.235
<i>Gov't Issues</i>	.676** *	.502*	-.179	.382	-.068	.221	.491*
<i>Corps Issues</i>	.070	-.051	-.292	.268	-.196	-.057	-.020
<i>Police Violations</i>	.024	-.137	.044	.286	-.100	.177	.103
<i>Native Unity</i>	.340	.397	-.338	-.542	-.248	-.486	-.026
<i>Unity Natives</i>	-.005	.105	-.176	.089	-.071	-.210	-.131
<i>Unity Races</i>	-.095	.085	-.054	-.232	-.265	-.411	-.329
<i>Tribal Rights</i>	-.203	-.385	-.321	.233	-.118	.082	-.091
<i>Discussion of Protestors</i>	.350	.179	-.195	-.257	.167	-.004	.324
<i>Protestors Negative</i>	.141	-.003	-.197	.224	.332	.398	.355
<i>Protestors Positive</i>	-.274	-.244	-.176	-.096	-.073	-.212	-.287
Indian Country Today	Like	Love	Laugh	Wow	Sad	Angry	All Reactions
<i>Social Movements</i>	.191	.264	-.304	.023	-.047	-.270	.016
<i>Eco-Feminism</i>	-.064	-.032	-.143	.490*	.096	-.071	-.070
<i>Environmental Racism</i>	.244	.293	-.200	-.352	-.121	-.221	.069
<i>Power Structures</i>	.160	-.089	-.140	.058	.226	.125	.235
<i>Gov't Issues</i>	-.115	-.411	.172	.103	.456	.374	.157

Table 10, continued.

<i>Corp Issues</i>	.589**	.576*	-.203	-.211	-.396	-.369	.274
<i>Police</i>	-.164	-.308	-.229	.205	.336	.208	.003
<i>Violations</i>							
<i>Native Unity</i>	.340	.397	-.338	-.542*	-.248	-.486*	-.026
<i>Unity Natives</i>	.366	.284	-.140	-.281	-.206	-.284	-.155
<i>Unity Races</i>	.068	.191	-.180	-.324	-.213	-.266	-.131
<i>Tribal Rights</i>	.222	.286	-.314	-.427	-.075	-.377	-.044
<i>Discussion of</i>	.350	.179	-.195	-.257	.167	-.004	.324
<i>Protestors</i>							
<i>Protestors</i>	.005	-.078	-.151	-.168	.097	-.215	-.130
<i>Negative</i>							
<i>Protestors</i>	.463	.304	-.134	-.203	.142	.173	.541
<i>Positive</i>							
<i>Cherokee</i>	Like	Love	Laug	Wow	Sad	Angry	All
<i>Phoenix</i>			h				Reactions
<i>Social</i>	.132	.080	-.191	.209	.213	.188	.135
<i>Movements</i>							
<i>Eco-Feminism</i>	.093	-.027	-.081	-.122	-.124	-.110	.074
<i>Environmental</i>	.109	.108	-.184	.309	.315	.278	.122
<i>Racism</i>							
<i>Power</i>	-.130	.001	-.119	.131	.054	.038	-.113
<i>Structures</i>							
<i>Gov't Issues</i>	-.225	-.172	-.149	-.047	-.138	-.110	-.226
<i>Corp Issues</i>	.177	.287	.055	.083	-.049	-.060	.192
<i>Police</i>	-.280	-.191	-.177	.208	.293	.249	-.261
<i>Violations</i>							
<i>Native Unity</i>	.412	.423	.009	-.376	-.318	-.121	.406
<i>Unity Natives</i>	.313	.306	-.055	-.475*	-	-.276	.298
<i>Unity Races</i>	.387	.428	.136	-.212	-.358	-.316	.383
<i>Tribal Rights</i>	.151	.142	-.055	-.083	.183	.329	.159
<i>Discussion of</i>	-.118	-.135	-.233	.621**	.563*	.327	-.101
<i>Protestors</i>							
<i>Protestors</i>	-.254	-.202	-.177	.824**	.778*	.493*	-.221
<i>Negative</i>				*	**		
<i>Protestors</i>	.158	.064	-.118	-.177	-.181	-.160	.141
<i>Positive</i>							

(N = 97; P < .05 = *; P < .01 = **; P < .001 = ***)

Summary

Each newspaper has significant correlations with the frames, sub-frames, and the emotional reactions received on the Facebook postings. The *Bismarck Tribune* has a significantly positive correlation with the Eco-Feminism sub-frame and the sad reaction, so when *Bismarck's* articles discuss Eco-Feminism, Facebook users are more likely to have a negative emotional response (Table 11). The Power Structures frame and two of its sub-frames, Government Issues and Police Violations, are significantly correlated with receiving emotional reactions on the Facebook postings. The Power Structures frame and the Government Issues sub-frame have significantly positive correlations with the love reaction, so when *Bismarck's* articles contain these frames, Facebook users are more likely to have a positive emotional response. The sub-frame Police Violations has a significantly positive correlation with the recoded all-inclusive reaction variable. *Bismarck's* articles have a significant correlation with the Native Unity frame and Tribal Rights sub-frame. The Native Unity frame has a significantly positive correlation with the love reaction. The Tribal Rights sub-frame has a significantly positive correlation with the love reaction and the recoded all-inclusive reaction variable.

The *Chicago Tribune* has significantly positive correlation with the Government Issues sub-frame, under the Power Structures frame. The like, love, and recoded all-inclusive reaction variable are positively correlated with the Government Issues sub-frame. When *Chicago's* articles discuss Government Issues, Facebook users are more likely to have a positive emotional response.

Indian Country Today has significant correlations with several frames and sub-frames. The sub-frame Eco-Feminism, under Social Movements, has a significantly

positive correlation with the wow reaction. When *Indian Country's* articles discuss Eco-Feminism, Facebook users are more likely to have a positive emotional response. The sub-frame Corporation Issues, under Power Structures, has significantly positive correlation with the like and love reactions. When *Indian Country's* articles discuss Corporation issues, Facebook users are more likely to have a positive emotional response of like and love. The frame Native Unity has a significantly negative correlation with the wow and angry reactions. When *Indian Country's* articles contain the Native Unity frames and sub-frames, the Facebook posting receives less negative emotional responses.

The *Cherokee Phoenix* significant correlations with several frames and sub-frames. The sub-frame Unity Between Other Natives, under Native Unity, has significantly negative correlations with the wow and sad reactions. When the *Phoenix's* articles contain these frames, negative emotional responses are less likely to occur on the Facebook posting. The Discussion of Protestors frame has significantly positive correlations with the sad and angry reactions. The Protestors Discussed Negatively sub-frame, under Discussion of Protestors, has a significantly positive correlation with the wow, sad, and angry reactions. When the *Phoenix's* articles discuss the Protestors, primarily negatively, Facebook users are more likely to have a negative emotional response.

Table 11: Summary for Correlations for Emotional Reactions & Frames

<i>Bismarck Tribune</i>	Like	Love	Laugh	Wow	Sad	Angry
<i>Eco-Fem</i>					+	*
<i>Power Structures</i>		+	*			
<i>Government Issues</i>		+	*			
<i>Native Unity</i>		+	***			
<i>Tribal Rights</i>	+	*	+	***		

Table 11, continued.

<i>Chicago Tribune</i>			
<i>Government Issues</i>	+***	+*	
<i>Indian Country Today</i>			
<i>Eco-Fem</i>		+*	
<i>Corporation Issues</i>	+**	+*	
<i>Native Unity</i>		_*	_*
<i>Cherokee Phoenix</i>			
<i>Unity Natives</i>		_*	_*
<i>Discussion of Protestors</i>		+**	+*
<i>Protestors Negative</i>	+***	+***	+*

Attention to Frames on Facebook

The third sub-question is what frames received the most attention on social media by shares and comments? To answer this question, two variables were created for the shares and comments that were received on each posting. Correlations were used to test the linear relationship and the strength and direction of the relationships between the frame variables and attention on Facebook variables. The four recoded frame variables and all frame inclusive variable were included in the correlations as the independent variables. The attention on Facebook variables for shares and comments were used as the dependent variables. The shares variable explains how many times Facebook users posted the news story to their own Facebook newsfeed. If fifty different people shared the article, then shares for that article is 50. The comments variable explains how many times Facebook users commented on a specific article post. This includes all comments and sub-comments within the comments thread on Facebook. To understand the frames and attention on Facebook by newspaper, a layer variable was included in the correlation. The layer variable is which newspaper published the story.

The *Bismarck Tribune* has a significantly positive correlation for several frames and sub-frames (Table 12). The Social Movements frame and its sub-frame Eco-Feminism have significantly positive correlations for shares and comments on the Facebook posting. When the Social Movements frame and Eco-Feminism sub-frame are present in the *Bismarck's* articles, the Facebook posting is shared more often and receives more comments on the post. The Power Structures frame has a significantly positive correlation for shares. When the Power Structures frame is present in the article, the Facebook posting receives more shares. The sub-frame Police Violations, under the frame Power Structures, has significantly positive correlation with comments on the post. When the Police Violations sub-frame is present in *Bismarck's* article, the Facebook posting receives more comments. The sub-frame Tribal Rights has a significantly positive correlation for shares. When the Tribal Rights sub-frame is in *Bismarck's* articles, the Facebook posting receives more shares.

The *Chicago Tribune's* articles do not receive significantly more attention on Facebook when the frames are present (Table 12). None of the frames or sub-frames have significant correlations with the amount of shares or comments the Facebook posting receives. However, substantive correlations do exist and are overall negative. Only Environmental Racism and Protestors Discussed Negatively are entirely positively correlated with the shares and comments received. When the other frames and sub-frames are present, the postings mainly receive less comments and shares, or a mixture of the two.

Indian Country Today one sub-frame with a significant correlation (Table 10). The sub-frame Protestors Discussed Positively has a significantly positive correlation

with the amount of shares the posting receives. When the Protestors are discussed positively in *Indian Country's* articles, the Facebook posting is shared more. While not significant, other correlations do exist too. The Social Movements frame has a negative correlation with shares on the posting, but a positive correlation with comments on the posting. When the Social Movements frame is present in the articles, the posting receives more comments but fewer shares. The Power Structures frame has a positive correlation with the shares and comments on the posting. When the Power Structures frame is present in the articles, the posting receives more shares and comments. The Native Unity frame has a negative correlation with shares on the posting, but a positive correlation with comments on the posting. When the Native Unity frame is present in the articles, the posting receives fewer shares but more comments. The Discussion of Protestors frame has a positive correlation with shares on the posting, but a negative correlation with comments on the posting. When the Discussion of Protestors frame is present in the articles, the posting receives more shares but fewer comments.

The *Cherokee Phoenix* does not have any frames with a significant correlation. The Social Movements frame has a negative correlation with the shares received on the posting, but a positive correlation for the comments. When Social Movements is present in the article, the posting receives fewer shares, but more comments on the Facebook posting. The sub-frame Eco-Feminism has negative correlations with the shares and comments the posting receives. When Eco-Feminism is present in the articles, the postings receive fewer comments and shares. The sub-frame Environmental Racism has positive correlations with the shares and comments the posting receives. When Environmental Racism is present in the articles, the postings receive more comments and

shares. The Power Structures frame has a negative correlation with the shares and comments received on the posting. When the Power Structures frame is present in the articles, the posting received less shares and comments. The sub-frames Government Issues and Police Violations have negative correlations with the shares and comments on the posting. When these sub-frames are present, the posting receives fewer comments and shares. The sub-frame Corporation Issues has a positive correlation with shares, but a negative correlation with comments. When Corporation Issues is present in the articles, the posting receives more shares, but fewer comments. The Native Unity frame and all three sub-frames have positive correlations with the shares and comments received on the posting. When these frames are present in the articles, the posting received more shares and comments. The Discussion of Protestors frame and both sub-frames have negative correlations the posting receiving shares and comments. When these frames are present, the Facebook posting receives fewer shares and comments.

Table 12: Correlations for Attention by Social Media & Frames

<i>Bismarck Tribune</i>	Shares	Comments
<i>Social Movements</i>	.336*	.320*
<i>Eco-Feminism</i>	.317*	.336*
<i>Environmental Racism</i>	.163	.129
<i>Power Structures</i>	.334*	.241
<i>Gov't Issues</i>	.220	.104
<i>Corp Issues</i>	.294	-.114
<i>Police Violations</i>	.063	.489***
<i>Native Unity</i>	.116	.179
<i>Unity Natives</i>	-.115	.075
<i>Unity Races</i>	-.093	.159
<i>Tribal Rights</i>	.353*	.133
<i>Discussion of Protestors</i>	-.095	.201
<i>Protestors Negative</i>	-.131	.145
<i>Protestors Positive</i>	.041	.216
<i>Chicago Tribune</i>	Shares	Comments

Table 12, continued.

<i>Social Movements</i>	-.168	-.334
<i>Eco-Feminism</i>	-.195	-.408
<i>Environmental Racism</i>	.078	.195
<i>Power Structures</i>	.401	-.032
<i>Gov't Issues</i>	-.038	.327
<i>Corp Issues</i>	-.135	-.285
<i>Police Violations</i>	-.140	-.013
<i>Native Unity</i>	-.249	-.412
<i>Unity Natives</i>	-.137	-.243
<i>Unity Races</i>	-.248	-.379
<i>Tribal Rights</i>	-.133	-.238
<i>Discussion of Protestors</i>	.322	-.240
<i>Protestors Negative</i>	.316	.260
<i>Protestors Positive</i>	-.142	-.287
<i>Indian Country Today</i>	Shares	Comments
<i>Social Movements</i>	-.093	.251
<i>Eco-Feminism</i>	-.035	-.130
<i>Environmental Racism</i>	-.068	.355
<i>Power Structures</i>	.401	-.032
<i>Gov't Issues</i>	.296	-.242
<i>Corp Issues</i>	.188	.396
<i>Police Violations</i>	.248	-.198
<i>Native Unity</i>	-.208	.040
<i>Unity Natives</i>	.028	-.132
<i>Unity Races</i>	-.242	-.049
<i>Tribal Rights</i>	-.179	.224
<i>Discussion of Protestors</i>	-.110	-.156
<i>Protestors Negative</i>	-.154	-.127
<i>Protestors Positive</i>	.558*	-.215
<i>Cherokee Phoenix</i>	Shares	Comments
<i>Social Movements</i>	.089	.052
<i>Eco-Feminism</i>	-.021	-.102
<i>Environmental Racism</i>	.116	.113
<i>Power Structures</i>	-.006	-.006
<i>Gov't Issues</i>	-.170	-.056
<i>Corp issues</i>	.245	-.231
<i>Police Violations</i>	-.157	-.184
<i>Native Unity</i>	.365	.326
<i>Unity Natives</i>	.225	.142
<i>Unity Races</i>	.341	.292
<i>Tribal Rights</i>	.188	.239
<i>Discussion of Protestors</i>	-.110	-.156
<i>Protestors Negative</i>	-.125	-.066

Table 12, continued.

<i>Protestors Positive</i>	-.001	-.149
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(N = 97; P < .05 = *, P < .01 = **, P < .001 = ***)

Summary

The attention the frames received on Facebook varies by newspaper. Within the *Bismarck Tribune*, if the article posted to Facebook contained the frames and sub-frames of Social Movements, Eco-Feminism, Power Structures, Police Violations, and Tribal Rights, the articles received more attention by Facebook users (Table 13). More users shared these articles to their own newsfeed and commented within the newspaper posts comments thread.

The *Chicago Tribune* did not have any significant correlations but did have a large amount of negative correlations. Only the sub-frames Environmental Racism and Protestors Discussed Negatively have positive correlations for both shares and comments received on the posting. When *Chicago's* articles contained the sub-frames Environmental Racism and Protestors Discussed Negatively, the newspapers Facebook posting was shared to Facebook user's newsfeeds more, and the newspapers postings received more comments from Facebook users. The other frames and sub-frames have at least one negative correlation with either the shares or comments.

Indian Country Today had one significantly positive correlation. The sub-frame Protestors Discussed Positively has a significantly positive correlation with receiving more shares on Facebook. When *Indian Country's* articles contained the sub-frame Protestors Discussed Positively, the newspapers posting was shared by Facebook user's more. The sub-frame Corporation Issues is the only frame that has positive correlations for both receiving shares and comments. When Corporation Issues is present in *Indian*

Country's articles, Facebook users commented on the Facebook post more and shared the article posting to their newsfeed more often.

All other frames and sub-frames have at least one negative correlation with either shares or comments on the Facebook posting.

The *Cherokee Phoenix* does not have any significant correlations, but a few positive correlations for both shares and comments. The frames Social Movements, Environmental Racism, Native Unity, Unity Between Other Natives, Unity Between Other Races, and Tribal Rights, all have positive correlations for shares and comments. Whenever the *Phoenix's* articles contain these frames and sub-frames, the articles receiving more shares and comments. The other frames and sub-frames have at least one negative correlation with either shares or comments on the Facebook posting.

Table 13: Summary of Correlations for Attention by Social Media & Frames

<i>Bismarck Tribune</i>	Shares	Comments
<i>Social Movements</i>	+*	+*
<i>Eco-Fem</i>	+*	+*
<i>Power Structures</i>	+*	
<i>Police Violations</i>		+***
<i>Tribal Rights</i>	+*	
<i>Indian Country Today</i>		
<i>Protestors Positive</i>	+*	

(N = 97; P < .05 = *, P < .01 = **, P < .001 = ***)

SUMMARY AND DISCUSSION

Summary

My first research question was how does the media frame the DAPL? To fully answer this question, I created two sub-questions. First, what frames exist? Through the qualitative coding analysis I identified 4 frames, which are Social Movements, Power Structures, Native Unity, and Discussion of Protestors. Within each of these frames, there are sub-frames. Within the Social Movements frame, the sub-frames are Eco-Feminism and Environmental Racism. Both of these sub-frames are related to major social movements and have been the topic of sociological research. Within the Power Structures frame, the sub-frames are government issues, corporation issues, and police violations. Forms of government, large corporations, and police forces are powerful structures in the United States. Within the Native Unity frame, the sub-frames are unity between other natives, unity between other races, and tribal rights. Historically, Native American tribes were independent from each other. Beginning in the 1960's with the Alcatraz occupation and in 1973 with the Wounded Knee occupation, Native Americans began coming together and fighting for their sovereignty and tribal rights (Kelly, 2014; Kotlowski, 2003; Lake, 1983). Within the Discussion of Protestors frame, the sub-frames are protestors discussed negatively and protestors discussed positively. Within the campgrounds the protestors are discussed positively, with kindness and generosity a constant topic. Outside the campgrounds, the protestors are discussed negatively for their disruption to city life in the surrounding towns and blocking the DAPL project.

My second sub-question for how the media frames the DAPL is do the diverse newspapers vary in what frames they used? Results indicate that the newspapers do vary in what frames they use. The *Bismarck Tribune* has the Power Structures and the

Discussion of Protestors frame featured prominently in their articles. While none of *Bismarck's* articles have all three Power Structures sub-frames present, several articles have two frames present in one article. Sixteen articles have the Government Issues sub-frame, ten have the Corporation Issues sub-frame, and five have the Police Violations sub-frame (Table 4 and Figure 6). The Discussion of Protestors frames appear in 18 of the 41 articles. Sixteen of the articles with this frame are only discussing the Protestors in a negative way. The other two articles have both sub-frames, Protestors Discussed Negatively and Protestors Discussed Positively, present in them.

The *Chicago Tribune* has the Social Movements and Power Structures frames prominent in their articles. Every *Chicago Tribune* article has at least one of the sub-frames of Social Movements. Fourteen of *Chicago's* articles have the Environmental Racism sub-frame, one article has the Eco-Feminism sub-frame, and four articles have both sub-frames. *Chicago's* articles discuss the Social Movements sub-frames regularly. The Power Structures frame is prominent in *Chicago's* articles as well. While seven articles have no Power Structures frames, the others have at least one sub-frame and three articles contain all three sub-frames. Six of *Chicago's* articles have the sub-frame Government Issues, three have the sub-frame Corporation Issues, and five have the sub-frame Police Violations.

Indian Country Today has the frames Power Structures and Native Unity prominent in their articles. Out of the eighteen total articles for *Indian Country*, only three articles have no Power Structures sub-frames. Eleven of *Indian Country's* articles contain the sub-frame Government Issues, four contain the sub-frame Corporation Issues, and one has the sub-frame Police Violations. There are two articles of *Indian Country*

Today that have all three sub-frames of Power Structures present. Five of *Indian Country's* articles have no sub-frames from Native Unity present. Four of *Indian Country's* articles have the sub-frame Unity Between Other Natives, four articles have the Unity Between Other Races sub-frame present, and eleven articles have the sub-frame Tribal Rights. One of *Indian Country's* articles contains all three sub-frames.

Lastly, the *Cherokee Phoenix* articles have a large presence of the Social Movements and Native Unity frames. Five of the *Phoenix's* articles have no Social Movements sub-frames. Thirteen of the *Phoenix's* articles discuss only the sub-frame Environmental Racism, and none of the *Phoenix's* articles discuss only Eco-Feminism. One of the *Phoenix's* articles has coding for both sub-frames. The *Cherokee Phoenix* discusses the Social Movements frame in almost all its articles but focuses strongly on the Environmental Racism sub-frame. The Native Unity frame is found in sixteen of the *Phoenix's* 19 articles. Only three articles do not have any mention of the Native Unity sub-frames. The sub-frame Unity Between Other Natives is found in eleven of the *Phoenix's* articles, the sub-frame Unity Between Other Races is found in six articles, and the sub-frame Tribal Rights is found in eleven articles. Four of the *Phoenix's* articles have all three sub-frames of Native Unity. The *Phoenix* tends to use the Unity Between Other Natives and Tribal Rights sub-frames the most often in their articles.

My second research question is what is social media's response to the DAPL? To fully answer this question, I created three sub-questions. The first sub-question is what emotional reactions are produced by each newspaper? All the newspaper variables create significant emotional reactions, depending on the newspaper being analyzed. The *Bismarck Tribune* has a significantly positive correlation between the location of the

article within the newspaper and the angry emotional reaction. Depending on where *Bismarck* located the article in its newspaper, whether it be the local, national, political, or other section in the newspaper, the location positively increases the angry reactions on the Facebook posting.

The *Chicago Tribune* has a significantly negative correlation between the location of the article within the newspaper and the laugh emotional reaction. Depending on the location of the article within the newspaper, the laugh reaction is significantly less likely to occur on the Facebook posting.

Indian Country Today has a significantly positive correlation between the date of the article being posted to Facebook and the emotional reactions of like and love. The overall newspaper variable, which takes all three newspaper variables of date of post, word count of article, and location of article in newspaper into consideration, is also significantly and positively correlated with the emotional reactions of like and love. Depending on the date of the article being posted to Facebook, the like and love emotional reactions are significantly more likely to occur. From analyzing the case summaries, the dates that received significantly more like and love reactions on Facebook fall in December 2016. This puts the increase of like and love reactions around the time President Barack Obama and the Army Corps of Engineers halted the DAPL pipeline until an Environmental Impact Statement (EIS) could be completed.

The *Cherokee Phoenix* did not have any significant correlations between the emotional reactions and the newspaper variables. As the Phoenix does not have different sections to their newspaper, the variable for where the article is located in the newspaper is insignificant and has no values. The date of the posting has positive correlations for

the like and love reactions, but all other reactions are negative correlations. The word count of the article creates positive correlations for all reactions except the like reaction. As the articles grow longer, the more reactions occur for all reactions except like.

The second sub-question of the second research question is what emotional reactions are produced by each frame? The emotional reactions that are generated on Facebook vary depending on what newspaper is being analyzed. The *Bismarck Tribune* has several significantly positive correlations. First, the Power Structures frame and its sub-frame Government Issues have significantly positive correlations with the love reaction. When this frame and sub-frame are present in *Bismarck's* articles, the love reaction is more likely to occur on the posting. The sub-frame Police Violations, which is under Power Structures, has a significantly positive correlation with the recoded all-inclusive reactions variable. When the Police Violations sub-frame is present in *Bismarck's* articles, reactions are more likely to occur on the Facebook posting. The frame Native Unity and its sub-frame Tribal Rights have significantly positive correlations. Native Unity has a positive correlation with the love reaction, and Tribal Rights has a positive correlation with the like, love, and recoded reactions variable. When the article posted to Facebook has the frames Native Unity and Tribal Rights, the reactions like and love are significantly more likely to occur.

The *Chicago Tribune* has a significantly positive correlation between the Government Issues sub-frame, which is under the Power Structures frame, and the like and love reactions. When the Government Issues sub-frame is present in *Chicago's* articles, the like and love reactions are significantly more likely to occur on the Facebook posting.

Indian Country Today has two frames with significant correlations. First, the sub-frame Eco-Feminism, which is under the Social Movements frame, is significantly and positively correlated with the wow reaction. When *Indian Country's* articles contain the Eco-Feminism sub-frame, the wow reaction is more likely to occur on the Facebook posting. Second, the sub-frame Corporation Issues, which is under the Power Structures frame, is significantly and positively correlated with the like and love reactions. When the Corporation Issues sub-frame is present in the articles, the like and love reactions are more likely to occur. Third, the Native Unity frame has a significantly negative correlation between the frame and emotional reactions of wow and angry. When the Native Unity frame is present in *Indian Country's* articles, the wow and angry reactions are significantly less likely to occur.

The *Cherokee Phoenix* has two frames with significant correlations. First, the Native Unity frame is significantly and positively correlated with the love reaction. When the Native Unity frame is in the *Phoenix's* articles, the love reaction is significantly more likely to occur on the Facebook posting. Second, the Discussion of Protestors frame is significantly and positively correlated with the wow and sad emotional reactions on Facebook. When the *Phoenix's* articles use to the Discussion of Protestors frame, the emotional reactions of wow and sad are more likely to occur on the Facebook posting. The sub-frame for Discussion of Protestors, Protestors Discussed Negatively, is also significantly correlated with the wow and sad reactions, and significantly correlated with the angry reaction. When the Phoenix discusses the protestors negatively, the Facebook posting is more likely to receive wow, sad, and angry reactions.

The third sub-question of the second research question is what frames receive the most attention on social media by shares and comments? The frames vary on the attention received on Facebook by what newspaper posted the article. The *Bismarck Tribune* has two frames receiving significantly more attention on Facebook. First, the Social movements frame, and its sub-frame Eco-Feminism, have a significantly positively correlation with the amount of shares and comments the posting receives on Facebook. When the Social Movements frame and Eco-Feminism sub-frame are present in the *Bismarck's* articles, the article receives more attention in the form of shares and comments. Second, the Power Structures frame has a significantly positive correlation with the amount of shares the posting receives. When the Power Structures frame is present in the article, the articles receives more shares on the posting. The sub-frame Police Violations, which is under the Power Structures frame, has significantly positive correlation with receiving comments on the Facebook posting. When the article posted to Facebook contains the sub-frame Police Violations, the Facebook posting receives more comments.

The *Chicago Tribune* has no significant correlations between the frames within the articles and the amount of attention the Facebook posting receives. Only the sub-frames Environmental Racism and Protestors Discussed Negatively have positive correlations for both shares and comments. All other frames and sub-frames have at least one negative correlation with receiving attention on Facebook.

Indian Country Today has one significantly positive correlation. The sub-frame Protestors Discussed Positively has a positive correlation with receiving shares on the Facebook posting. When *Indian Country's* articles discuss the protestors in a positive

way, the Facebook posting receives more attention on Facebook through the sharing of the posting.

The *Cherokee Phoenix* has a no significant correlations but does have interesting correlations. The Native Unity frame and all three sub-frames, Unity Between Other Natives, Unity Between Other Races, and Tribal Rights, all have positive correlations with receiving attention on Facebook by both shares and comments on the posting. The Discussion of Protestors and both sub-frames, Protestors Discussed Negatively and Protestors Discussed Positively, all have negative correlations. Whenever *Indian Country's* articles discuss the protestors, regardless of negatively or positively, the Facebook posting receives less comments and shares.

This research provides the foundations for social media research and utilizing the emotional reactions feature on Facebook. Combining the qualitative coding of the newspaper articles to identify media frames with the quantitative analysis of the emotional reactions to the posts, shares, and comments on Facebook is a new direction for social media research. Being able to identify how the users reacted to the frames within the articles is a great source of information. Also identifying what frames received more or less attention by the amount of comments and shares the posting received explains what Facebook users respond to.

Discussion

Through my first research question, I identified how the newspaper framed the DAPL in their articles posted to their Facebook pages. Each of the newspapers focused on different frames than others, with a difference between the American presses of the

Bismarck Tribune and *Chicago Tribune*, and the Native American presses of *Indian Country Today* and the *Cherokee Phoenix*. The *Bismarck Tribune* focused on the Power Structures and Discussion of Protestors frames and sub-frames. The *Bismarck Tribune* is the closest newspaper to the protest site on the Standing Rock reservation, and the people who read the newspaper are wanting more information on local events. According to Forbes (2017), the median household income in Bismarck, ND is \$64,081. This is above the national median household income, which is \$56,516 (U.S. Census Bureau, 2016). Bismarck is a primarily white town, who is in favor of the pipeline project for the revenue, but does not want to suffer ill-effects that can come with a pipeline. Therefore, discussing the protestors in the newspaper articles, primarily negatively, aligns with the *Bismarck's* location and news audience. Eighteen of *Bismarck's* articles discussed the protestors negatively, while only two articles discussed them positively. *Bismarck's* citizens wanted the pipeline away from their water source but are not in favor of the protests at Standing Rock, thus increasing the negative comments about the protestors. As the citizens did not want the pipeline near their water supply, the newspaper also focuses on the government and corporation issues from the pipeline debate, as these two sub-frames of Power Structures are prominent in the articles.

The *Chicago Tribune* focused on the Social Movements and Power Structures frames and sub-frames. Chicago, IL is diverse and liberal-leaning city, which had protests within its city over the DAPL, despite the pipeline only going through the lower portion of the state. Concerns over Environmental Racism and government and corporation issues were prominent throughout *Chicago's* articles. Between the *Bismarck Tribune* and *Chicago Tribune*, *Chicago's* articles discussed the sub-frame Police

Violations more than *Bismarck*. Forty-seven percent of *Chicago*'s articles discussed Police Violations, while only seventeen percent of *Bismarck*'s had the Police Violations sub-frame. This brings up a future research question on whether conservative and liberal newspapers focus on Police Violations more than the other.

Indian Country Today's articles focused on the Power Structures and Native Unity frames and sub-frames. As this is a Native American centered issue, the Native American presses focusing on Government Issues, Native Unity, and Tribal Rights makes sense. Addressing sovereignty, how the government is ignoring treaties, and Unity Between Other Natives and Races is expected of a Native American paper. Sixty-one percent of *Indian Country*'s articles discussed Government Issues, and the same percentage of their articles discussed Tribal Rights. Discussing what the government is doing wrong, not including Corporation Issues, would also include the discussion of Native Unity, which includes Tribal Rights – sovereignty and independence from the United States.

The last newspaper, the *Cherokee Phoenix*, focused on the Social Movements and Native Unity frames and sub-frames. As the *Cherokee Phoenix* is in Oklahoma, south of the DAPL and could be affected by a spill from the pipeline, it makes sense for the newspaper to discuss Environmental Racism and the hazards people could be facing. All three of the Native Unity sub-frames are prominent in the *Phoenix*'s articles. Fifty-seven percent of the *Phoenix*'s articles discuss Tribal Rights of Native Americans and Unity Between Other Natives. As the *Cherokee Phoenix* is a newspaper run by Cherokee Native Americans, an increase in discussion on different Native nations coming together to support the protests is expected from this newspaper. What is interesting, is while the

Phoenix's articles focused on Native Unity, very few articles discussed Government Issues and Police Violations. Three out of nineteen articles, or fifteen percent of the *Phoenix's* articles have the sub-frame Government Issues. This brings up another future research question, on whether different Native presses focus on the Power Structures frames more than each other.

My second research question focuses on social media's response to the DAPL, which includes an analysis of the frames, sub-frames, emotional reactions on Facebook, and the amount of shares and comments the newspapers postings received. With social media sites like Facebook the newspapers are able to have their own pages to share their stories. This provides a broader audience for the newspapers to reach, and now comes with emotional reaction options for each posting. The emotional reactions allow Facebook users to respond to the content they are reading on Facebook, and this allowed me to investigate how the users responded. People have a response to the content they read, regardless of the topic or how they came across the information. The emotional reactions allow the users to respond immediately.

The comments and shares on the newspaper provides information on attention given to the postings. While users can respond with their emotional reaction quickly, taking the extra step to engage in conversation in the comments section on the posting or sharing the newspapers post to their own newsfeed is an additional step. These users are more engaged with the content, but what caused them to be more engaged? This is where the correlations came in, with testing for relationships between the comments and shares and the frames and sub-frames in the articles. For example, there was a significantly positive correlation for the *Bismarck Tribune* receiving additional shares on Facebook

postings that discussed Social Movements, Eco-Feminism, Power Structures, and Tribal Rights. Users responded to these frames and sub-frames with sharing the stories more often on their newsfeed. Analyzing social media's content can provide detailed information for what topics are receiving more attention than others.

The sociological conversation on the DAPL begins with Environmental Racism, but it doesn't stop there. Government agencies and corporations have been the biggest perpetrators of Environmental Racism, yet nothing has changed despite this being a known fact since the 1970's (Hines, 2001; U.S. Council on Environmental Quality, 1971). Native Americans consistently have their rights and sovereignty ignored. This leads to two sociological processes being discovered within the newspaper articles and the overall DAPL debate. First, the process of conflict is present in two forms – destructive and constructive (Bardis, 1979; House, 1926). Government agencies, ETP, and the police used destructive conflict techniques when dealing with the Standing Rock protests. The cancellation of the EIS, refusal to consider moving the pipeline, and brutal attacks from police forces on the protestors are all destructive techniques. The protestors used constructive conflict techniques, including being open to rerouting the pipeline and wanting their protests to remain peaceful. These two conflict approaches are polar opposites, and an agreement cannot be reached with these two approaches. This leads to the second sociological process – accommodation (Bardis, 1979; House, 1926). Native Americans are sovereign people and their reservations are separate from the United States. They have the rights to the lands and there are already federal laws that are supposed to protect them and their land. Native Americans are supposed to be included in discussion when government or corporate projects could impact their land and ways of

life, yet they were excluded from the DAPL discussions. With further research, this exclusion issue could be linked back to Environmental Racism. From the DAPL debate and analysis of newspaper articles, the United States needs to change its approach on disagreements with Native Americans from destructive techniques, and to be more accommodating to the Native American nations.

The DAPL protests and debates matter for a couple reasons. First, the DAPL is a textbook case of Environmental Racism. Preference is given to the financial and racial majority, while the minority is stuck with the environmental hazards and damages. Inequality is continuing to be perpetuated, and those who are already less likely to have the ability to better their lives are given even less of a chance. Before the pipeline was put in, the odds were already stacked against the Standing Rock Sioux and Cheyenne River Sioux nations for health, financial, and educational outcomes. The pipeline simply increases the odds for negative health outcomes for those living south of the pipeline.

Next, the DAPL protests and debates matter because of the tribal rights and sovereignty of Native Americans being ignored. As Native American nations are sovereign nations that are independent of the United States, they should have been included in at least the discussion and planning phases of the DAPL. They were ignored through the process, and the pipeline was put just .55 miles north of the reservation, which is .05 miles outside of ETP's scope of environmental impact. This action alone raises questions of the placement and the analysis done by ETP. Independent nations, despite being within the boundaries of the continental forty-eight states, should receive the same consideration as any other country or nation.

Limitations

This study has a few limitations to its scope. First, this study only focused on the articles posted to Facebook by the newspapers and not the overall articles that the newspaper has written. While the newspapers have additional articles written and posted to their websites about the DAPL, to obtain the quantitative data the only articles used were posted to the newspapers Facebook pages.

Second, this study is only looked at the social media site Facebook and the four newspapers Facebook pages. On Facebook there are hundreds of other newspaper pages and other forms of media outlets. Expanding the study to include other news sources would provide a wider depth to the data. Facebook is one of the largest social media sites that is used worldwide, but future research should consider additional social media platforms such as Twitter, Tumblr, and Instagram.

Third, within the United States there are there are hundreds of newspapers to choose from, and thousands of newspapers worldwide. This study only focused on the four selected newspapers and their Facebook pages and audience. Additional research of other newspapers locally, nationally, and internationally would be another research project.

Fourth, further investigation of the qualitative analysis on the newspaper articles is needed. Time restraints resulted in only a couple rounds of coding, and additional rounds of coding would be ideal for a more in-depth qualitative analysis.

Fifth, a great of quantitative information was collected on additional newspaper sources that was not included in this analysis. Further analysis incorporating these other sources could lead to more in-depth findings.

Future Research

There are several research directions for future research from this project. First, additional analysis of the newspaper articles could result in more frames rising from the data. Next, adding additional newspapers for a wider depth of understanding of how the media framed the DAPL nationwide and internationally. Also, following the additional newspaper analysis, gathering the social media information on Facebook would add depth to the emotional reactions and attention to frames on Facebook. Further additional research on other social media platforms would be a valuable addition to the project. Understanding the media framing of the DAPL on Facebook is the start of this analysis, and it can be taken a step further to compare the media framing between social media sites. This comparison between the social media platforms and their news coverage of the DAPL, and other topics, can begin the understanding of social media's roll in news coverage. Future research should also look at the comments on the newspaper posts by the Facebook users.

Additional research into the political affiliation of the newspaper or the area that the newspaper serves would be a valuable additional the project. This research was begun in this project, with the *Bismarck Tribune* serving a primarily conservative area and the *Chicago Tribune* serving a liberal area. Additional newspaper sources in conservative and liberal areas and correlations between the frames identified in their

news articles can give a more detailed look into political framing of the DAPL.

Following this research, additional research on Native American presses and whether they focus on Power Structures frames and sub-frames more than each other. With the two Native presses in this study, there is a difference between the sub-frames presence in their articles, and additional Native presses would potentially explain these differences.

CONCLUSION

The Dakota Access Pipeline is a textbook case of Environmental Racism. The original route and the re-route of the pipeline shows the priority given to financial and racial majority citizens. Throughout the United States, Environmental Racism has had a disproportionate effect on lower income and minority neighborhoods. Government and corporations are aware of these problems, yet have not made significant efforts to change (Bullard, 1993; Bullard et al., 1997; Sicotte, 2008; Rainey & Johnson, 2009). Finding this to be an important research issue, I analyzed the newer technology of social media to examine how the DAPL is framed by newspapers and the reactions of Facebook users. Using the conceptual model of Frame theory, I identified what main types of frames exist, whether different newspapers use varying frames, and how the Facebook users react to the newspapers and frames. The major frames of Social Movements and Power Structures and their sub-frames first guided my qualitative analysis. After initial qualitative coding, other important frames began to emerge, which are Native Unity and Discussion of Protestors. Native Unity is an important frame when analyzing movements and concerns by Native Americans. As a neglected minority in the United States, their concerns are typically overshadowed by other political issues in the United States. This can be seen through my analysis, as Native American presses paid more attention to the frame Native Unity than American presses. Through the diversity in frames and the newspapers varying in what frames they used, the influence on Facebook users when reading the news stories can be seen. The emotional reactions vary by frame and by newspaper, as each newspaper takes the stories in different directions. Media does have an influence on public opinion.

The results of the qualitative coding provides a starting point for further frames to emerge from the articles and to incorporate other newspapers in the analysis. The quantitative analysis took these a priori and emerging frames and analyzed them alongside the quantitative Facebook data. Facebook users do have significant emotional reactions to specific frames within newspaper articles and the newspapers themselves. Social media plays a large part in the majority of people's lives these days, as billions have Facebook accounts, Twitter accounts, Instagram accounts, and other social media sites. Using this available information is vital to understanding not just the news outlets and their framing, but the responses from social media users. Using social media to communicate about protests, causes, and movements can spread the word quicker and increase involvement (Bullard, 2003; Eitzen & Johnston, 2015). This can be seen in recent events of 2017 and 2018 with the investigations on Facebook influencing the 2016 Presidential elections. This is the first analysis of its kind to use the Facebook emotional reactions and will be increasing popular in future research. Through the internet and social media, environmental and protest movements have a platform to quickly spread information in the future, and one of the first larger movements to use this technology was the DAPL.

Throughout the analysis of the newspaper articles, two sociological processes were discovered. Differences in how the two sides – the DAPL protestors and the government agencies and corporations – handled the conflict can be seen. Destructive conflict techniques were used by the government agencies and corporations while the DAPL protestors used more constructive techniques. These differences disagree with each other, and a peaceful resolution cannot be reached without changes. With this in

mind, and that Native American reservations are sovereign and independent of the United States, changes need to be made to be more accommodating to these sovereign nations. Current federal laws need to be used which incorporate these nations in discussion and planning of projects that potentially affect these nations. The DAPL debates and protests are important because it brings Environmental Racism back to the forefront of discussion. Past Environmental Racism cases are still present and have not been resolved, and future cases are not being prevented currently. These cases impact not only current citizens, but future citizens as well. Ensuring healthy health outcomes is vital for improving health statistics across the United States, and especially in lower income areas that are targeted for sites like the DAPL.

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APPENDIX A: CODE SHEET

Code Sheet

Newspaper: _____

Date of Post to Facebook: _____

Article ID # _____

Word Count of Article: _____

Date the Article was Written: _____

Author of the Article: _____

Location of Article Within Newspaper: _____

Frame	Description	Frame Present in article	
		NO	YES
Eco-Feminism	Females discussed in article that are supporting and/or engaged in DAPL protests or campsites.		
Environmental Racism	Violations against minorities/lower income populations. "Desecrating cultural sites".		
Government Issues	Potential or clear violations of government agencies.		
Corporation Issues	Potential or clear violations of corporations		
Unity Between Natives	Discussion of other native tribes being involved with the DAPL protests		
Unity Between Races	Discussion of other races and their involvement with the DAPL protests		
Police Violations	Acts of police brutality, lying by authorities, and instigation		
Protestors Discussed Negatively	Protestors discussed with negative framing, such as having weapons and disrupting community functions		
Protestors Discussed Positively	Protestors discussed with positive framing, such as helping all in need at the encampments and being peaceful.		

Tribal Rights	Mentions of rights of Natives, in regards to the current fight, overall in America, and what is rightfully theirs.		
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APPENDIX B: SPSS VARIABLES

Variable	Variable Name	Level of Measurement	Values
Newspaper that published the article		Nominal	1 = Bismarck Tribune 2 = Chicago Tribune 3 = Indian Country Today 4 = Cherokee Phoenix
Number of shares on the article post	Numofshares	Interval-Ratio	Ranges from 0 to 5500
Number of comments on the article post	Numofcomments	Interval-Ratio	Ranges from 0 to 317
Date article was posted	DatePosted	Ordinal	Dates Range from 08242016 to 3072016
Location of article in newspaper	LocationPaper	Nominal	0 = N/A 1 = State & Regional 2 = Local news 3 = Nation & World 4 = Business 5 = Native News 6 = Politics 7 = Opinion 8 = Arts & Entertainment
Author of the article	Author	Nominal	0 = N/A 1 = Lauren Donovan 2 = Caroline Grueskin 3 = Kimberly Wynn 4 = Jessica Holdman 5 = Steve Reuters 6 = John Hageman 7 = Blair Emerson 8 = Andrew Haffner 9 = Amy Dalrymple 10 = Nick Smith 11 = Leann Eckroth 12 = Blake Nicholson 13 = William Yardley 14 = James MacPherson 15 = Juliet Elperin 16 = Elyssa Cherney

			17 = Matt Pearce 18 = Meenal Vamburkar 19 = Joe Helm 20 = Jenni Monet 21 = Standing Rock Sioux Tribe 22 = Valerie Taliman 23 = Jeffrey Ostler 24 = Theresa Braine 25 = Gyasi Ross 26 = Rob Capriccioso 27 = Renae Ditmer 28 = Mark Trahant 29 = Brian Daffron 30 = Jami Murphy 31 = Roger Graham
Number of words in the article	WordCount	Interval-Ratio	Ranges from 104 to 2130
Number of Like reactions on post	Likereac	Interval-Ratio	Ranges from 2 to 3000
Number of love reactions on post	Lovereac	Interval-Ratio	Ranges from 0 to 251
Number of laugh reactions on post	Laughreac	Interval-Ratio	Ranges from 0 to 100
Number of wow reactions on post	Wowreac	Interval-Ratio	Ranges from 0 to 172
Number of sad reactions on post	Sadreac	Interval-Ratio	Ranges from 0 to 431
Number of angry reactions on post	Angryreac	Interval-Ratio	Ranges from 0 to 2000
Presence of Eco-Feminism frame	EcoFem	Nominal	0 = N/A 1 = Present
Presence of Environmental Racism frame	EnviroRace	Nominal	0 = N/A 1 = Present
Presence of Government Issues frame	GovIssues	Nominal	0 = N/A 1 = Present
Presence of Corporation Issues frame	CorpIssues	Nominal	0 = N/A 1 = Present
Presence of Unity Between Natives frame	UnityWNatives	Nominal	0 = N/A 1 = Present

Presence of Unity Between Other Races frame	UnityWRaces	Nominal	0 = N/A 1 = Present
Presence of Police Violations frame	PoliceViolations	Nominal	0 = N/A 1 = Present
Presence of Protestors Discussed Negatively frame	ProtestorsNeg	Nominal	0 = N/A 1 = Present
Presence of Protestors Discussed Positively frame	ProtestorsPos	Nominal	0 = N/A 1 = Present
Presence of Tribal Rights frame	TribalRights	Nominal	0 = N/A 1 = Present
All reactions for post	Reactions	Inteval-Ratio	Ranges from 3 to 3582
All newspaper variables for post	Newspapervariables	Interval-Ratio	Ranges from 1052580 to 12272254
Presence of all Social Movements Frames	SocialMovements	Nominal	0 = N/A 1 = One Frame Present 2 = Both Frames Present
Presence of all Power Structures Frames	PowerStructures	Nominal	0 = N/A 1 = One Frame Present 2 = Two Frames Present 3 = All 3 Frames Present
Presence of all Native Unity frames	NativeUnity	Nominal	0 = N/A 1 = One Frame Present 2 = Two Frames Present 3 = All 3 Frames Present
Presence of all Discussion Protestors	DiscussionProtestors	Nominal	0 = N/A 1 = One Frame Present 2 = Both Frames Present
Presence of all Overarching Frames	OverarchingFrames	Nominal	0 = N/A 1 = One Frame Present 2 = Two Frames Present

			3 = Three Frames Present 4 = Four Frames Present 5 = Five Frames Present 6 = Six Frames Present 7 = Seven Frames Present 8 = Eight Frames Present
Combined Shares and comments for posts	SharesComms	Interval-Ratio	Ranges from 0 to 5732
Three newspaper variables combined: Date of Post, Word Count, and Location of Article in Newspaper	NewsVar	Interval-Ratio	Ranges from 1052576 to 12272250