The Evolution of Broadcast Journalism

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Abstract
The research follows three broadcasts from NBC Nightly News from the months of February, July, and October to observe the amount of positive, negative, and neutral polarity words in each of them from the specific years of 1988 and 2018 on American television. This study was conducted with public online videos of the broadcasts converted into transcripts and the MPQA Subjectivity lexicon. The two were compared with a program written specifically to find words that exist on both the transcript and lexicon. The results of this study revealed that approximately 75% each broadcast studied was dedicated to positive and negative words while a quarter was reserved for neutral language. Implications of the results include possibility that positive and negative polarity words may be used more frequently than people assume and that what people think to be normal may not actually be so according to sentiment analysis. The center-left standpoint of NBC implies that the network does not focus on either conservative or liberal biased news stories usually, only occasionally breaking that position to address the more liberal side of issues. The hypothesis this study offers to the question is that in the past thirty years, NBC Nightly News changed to include more positive and negative polarity words in the 2018 than in 1988. Increased usage of positive and negative polarity words as predicted would lead to implications that even mostly neutral sources are influenced by the biased sources around them. For the many viewers of TV news in the present day, this could mean a drastically different understanding of current day events. Any further research done into this topic could uncover not only the changes in language, but the changes in images and sound and their impacts on the news-watching public.

Keywords: Word polarity; Sentiment analysis; Broadcast journalism; Reporting language; Positive; Negative; Neutral; NBC

Introduction
Broadcast journalism encompasses everything from news published online to the evening news thousands of Americans sit down to watch each evening. While television news is only one aspect of broadcast journalism, it is the most popular amongst the news-following population of the United States. For most of broadcast journalism history, the prestige of reporting raw fact over personal opinions characterized broadcasts. However, a shift occurred in the late twentieth century in some networks on television that offered broadcast journalism. Instead of focusing so much on the neutral integrity of a broadcast, some networks turned to reporting for a specific audience on a side of the political spectrum. Like any form of journalism, the words people use on TV are essential to understanding the message of the report [1]. Since certain words in the English language have the potential to sway the emotions of a viewer, the value of investigating a potential change in the message audiences unwittingly receive is evident [2].

Sentiment analysis is the name given to classifying those words as having a positive, negative, or neutral polarity. Polarity refers to what connotation a word has to its reader out of context from other words surrounding it. Positive polarity words communicate a positive feeling to someone, while negative polarity words deliver the opposite effect. This study uses a lexicon to provide an extensive list of commonly used English words with positive, negative and neutral polarity and compares it to the transcript of several NBC Nightly News broadcasts from 1988 and 2018. These years were chosen because they took place before and after the shift in certain networks of broadcast journalism on television to focus on one side of the political spectrum.

Observing the NBC broadcasts from the specific years of 1988 and 2018 immediately shows not only aesthetic changes in broadcasting style with music and set choices, but also the change in anchors and reporters over the thirty-year time difference. Surface changes aside in NBC broadcasts, the fact that in those thirty years a new idea for specialized news networks - like Fox News and MSNBC - on television came to flourish leads to the question of how that occurrence effects other networks in the field of broadcast journalism. This study will investigate that question, specifically focusing on reporting language changes over time. Sentiment analysis applied to reporting language in NBC Nightly News broadcasts over the years of 1988 and 2018 allows for a direct understanding of how a politically center-left network reacted to a shift in field surrounding the broad field of broadcast journalism. The center-left standpoint of NBC implies that the network does not focus on either conservative or liberal biased news stories usually, only occasionally breaking that position to address the more liberal side of issues. The hypothesis this study offers to the question is that in the past thirty years, NBC Nightly News changed to include more positive and negative polarity words in the 2018 than in 1988. Increased usage of positive and negative polarity words as predicted would lead to implications that even mostly neutral sources are influenced by the biased sources around them. For the many viewers of TV news in the present day, this could mean a drastically different understanding of current day events. Any further research done into this topic could uncover not only the changes in language, but the changes in images and sound and their impacts on the news-watching public.

Literature Review
Establishing what broadcast journalism entails and its similarity with traditional print journalism is essential to the understanding of any changes in the subject. Broadcast journalism is the application of traditional print journalism to media that involves broadcasting via the internet, radio, or television. Since broadcast journalism was born from the common journalistic practices cemented by centuries of print journalism, many of the same rules apply to both areas of interest. When learning to become a journalist in any form, students learn all types of journalism, broadcast or otherwise [4]. In fact, many of the universities with the top journalism schools in America (University of Texas at Austin, University of Syracuse, Boston University, University of Southern California, and Northwestern University) all offer experiences in the field of journalism across all types of medium. Additionally, across the five universities, the courses offered and required for a journalism type of major include Radio, Television and Film at University of Texas at Austin; Multimedia Storytelling...
The broad field of study known as journalism has standards to follow for practitioners. Veteran journalist Colleen Cotter states that for journalists learning their craft, one of the most important values ingrained into them from the start is their ability to tell the facts in stories that are accurate and subsequently credible. Credibility relies on the accuracy of language used in reporting as well as correctness of the word choice. The idea of being a credible news source is also closely related to the journalists ability to find truth in an ethical manner. With this, the Society of Professional Journalists’ (SPJ) Code of Ethics states that “ethical journalism strives to ensure the free exchange of information that is accurate, fair and thorough. An ethical journalist acts with integrity.” A journalist’s ability to present themselves on television or some other medium with integrity stemming from courses in which they learn their craft or experiences they have in their field allows them to be the credible and neutral sources the public expects [7].

The shift on broadcast journalism, particularly on TV and online, in the late twentieth to the early twenty-first was a noticeable deviation from the previous decades with ABC, CBS, and NBC (CNN in 1980). Through most of the twentieth century, only the "Big Three" sources existed to provide news for the American public, all of which were believed to be mostly unbiased by many audiences. Doctor of Sociology Robert T. Bower reports that up to the early 1970s, audiences generally responded in agreement to the statement that their preferred newscaster “gives [the news] straight” However, the creation of Fox News and MSNBC in 1996 both marked the end of all broadcast journalism aiming to be mainly unbiased fact. Instead, news networks found a specific audience while intentionally focusing on a certain political perspective [8].

Knowing the shift in broadcast journalism occurred during this time gives credibility to this study choosing years surrounding the shift in order to observe the evolution of broadcast journalism over a period of change. Understanding the context and importance of 1988 and 2018 being utilized in this study is vital to the purpose of the research [9].

Beginning with 1988 before the shift in the medium and including 2018 thirty years later, straddles the shift and allows for accurate assessment of any effects. The amount of TV people watched in the 1980’s grew and became even more synonymous with entertainment and information opening up the possibility of TV reaching a wider audience than before. In the CNN mini-series The Eighties, the second episode focuses on the fact that in the 1980s most everyone had a TV in their home that they regularly paid attention to at some point during their day. This came about because of the rapid development of more TV shows and channels than ever before and the advent of cable news sources, beginning with CNN in 1980. For broadcast journalism, this meant that their ratings increased. The Pew Research Center on behalf of Nielsen Media Research found that throughout the 1980s in the United States, the average viewers per night for evening news ranged between 41.8 % and 52.1% of surveyed households in America, higher than any other decade presented in the research. The year of 1988 includes many notable developments in media and that it falls before the creation of politically biased news networks beginning in the 1990s, there is validation for its selection for the study in this paper.

In 2018, the convenience of the internet certainly brings into question the role of broadcast journalism on TV. However, despite the convenience of the internet on smartphones, Pew Research Center found that majority of Americans still prefer watching the news on TV over any other medium available to them in 2018. American media in 2018 was also experienced by the audience with a different perspective. In 2016, the term “fake news” exploded in popularity in google searches reaching previously unknown heights of popularity [10].

Researcher Davies reports that in 2016 the popularity of the term “fake news” gained extraordinary traction in American news media, all in the days after Donald Trump was elected president. Davies also theorizes that the reason for this spike in interest after the 2016 presidential election was due to the reasoning in the minds of many Americans looking to justify the unexpected outcome of the election. With that, the general perception of the news being intentionally deceptive had taken root, and rightfully so. Journalist Charles Duhigg writes that Fox and MSNBC create their content by tapping into the ignignant feelings in humans, putting them on air. “The point,” Duhigg writes “is to keep viewers tuned in, and that means keeping them angry all the time.” The anger expected from purposeful negative language and opinions in the news demonstrate the effects the shift to a more politically biased style of reporting have incited in the public. The clear consequences of caustic and provoking language and actions in broadcast journalism on TV and "fake news" caused the question of effects of the shift to be more relevant than ever. Including the year 2018 is a vital in order to observe those changes in broadcast journalism [11].

Language was chosen as the factor of potential change for the purpose of this study in order to focus the results and implications. Since the importance of language in traditional print-based journalism is emphasized in its values of precision and clarity in story, the close relationship between all forms of journalism makes the use of language valid in this research. The impact of studying the potential changes in language used in television news is highlighted with the perspective offered from sentiment analysis. Vital to the study is the understanding that sentiment analysis is the understanding of various connotations of typical human emotional responses to any given word. Finding the changes in what emotions the language of broadcast journalists on TV trigger in a typical audience member allows for a far-reaching effect of the implications of this study, especially given the actual consequences of Fox and MSNBC’s style of biased reporting.

**Method**

To answer the question of how language in broadcast journalism evening news has changed, the most effective method is the content analysis method. Content analysis is a method that codifies qualitative data into quantitative data. For this research, the transcripts of several selected newscasts from NBC Nightly News will be compared with a dataset of common English words and their connotations. This allows for the content analysis method to sufficiently answer the question of this paper. The connotations (sentiment analysis) of the words in this research are important because they show how the language in reporting has changed in terms of meaning in the past 30 years, rather than just what different words are used between the time period. They are also relevant to the purpose of the study: to understand if the shift
in reporting for some news broadcasting networks like Fox News and MSNBC had greatly influenced the way the NBC presents information to the public.

In the body of knowledge pertaining to sentiment analysis, there are several sets of words or lexicons created for the purpose of categorizing each word that has positive, negative or neutral connotations. The first set further research uncovered that had sentiment analysis for the connotations of words was the Affective Norms for English Words (ANEW). It provides, in depth, a list of English words with normative emotional connotations rated by pleasure, arousal, and dominance to complacent, with all responses offered in ranges. Instead of classifying the words with their specific connotation, A new leans towards analysis of a word’s nuanced emotional scales. While the research done was related to sentiment analysis, it was too indirect to justify usage of this type of analysis in the study and was rejected from consideration. However, the Multi-Perspective Question Answering (MPQA) Subjectivity Lexicon contained a similar word set with connotations (polarity) communicated to the reader far more directly. Its directness was clear in the manner that it presented the classification of each word.

A sample of the first line of the lexicon is pictured below in Figure 1. The “type” refers to the word’s subjectivity, or how reliant it is on its context to communicate a certain connotation to a person. “Len” is short for length (of the word), which is always one in this particular lexicon. “Word1” refers to whichever word is currently being presented in the lexicon. “Pos1” is an abbreviation for “part of speech” of the word currently in question with the lexicon. “Stemmed1” is answered with a ‘y’ for “yes” and an ‘n’ for “no” and asks if the word in study a part of a preceding series is. For example, the word in Figure 1 is “abandoned” and its stemmed1 is ‘n’ because there are no words before it in the lexicon that stem from the word “abandon.” “Priorpolarity” refers to the polarity of any word being studied. This factor enables the research investigation of the impact that a bias shift in the news specifically had on language. Because of this, the Multi-Perspective Question Answering Subjectivity Lexicon is the choice lexicon of this paper.

**Design**

In order to conduct the content analysis method of comparing the MPQA Subjectivity Lexicon to transcripts of specific news broadcasts from both 1988 and 2018, three corresponding months in each year were utilized. This study uses one broadcast from each month of February, July and October from the year 1988 and 2018 to get a variety of news from the year rather than risk inadvertently focusing on a specific issue. This choice was also an acknowledgement of the time limitations in the research.

Once the clips were found through public access on YouTube, their transcripts and the contents of the lexicon were converted into plain text (.txt) files. These files were then run through a program specifically designed for this study in order to pick out words that were both present in the MPQA Subjectivity Lexicon and the transcripts of each broadcast. The counts of words in common with the lexicon and the transcripts under each specific polarity group (positive, negative, neutral) gave a clear picture of the types of words used as well as their connotations. Furthermore, it demonstrates if they have changed over the 30 years specifically between 1988 and 2018.

**Replicability**

The MPQA Subjectivity Lexicon and its parameters applied to targeted months in broadcast evening news over a thirty-year gap leads directly to analysis of changes in language. The implementation and creation of a program to run the data is easily accomplished and tailored to the research at hand. Because of the precise nature of the items being compared and the program used for comparison in the content analysis method, the study is soundly reproducible.

**Findings**

In this segment of the report, several figures and descriptions are offered to demonstrate the results of the research. Figure 2 shows 142 positive and negative and 39 neutral words from February 1988 while Figure 3 demonstrates that in February 2018, the broadcast consisted of 132 positive or negative words and 37 neutral words.

In July 1988, Figure 4 shows that there were 134 positive and negative words and 35 neutral words an on average broadcast. In July 2018, Figure 5 demonstrates that there were 132 positive and negative words and 42 neutral words in a broadcast.

In October 1988, Figure 6 demonstrates that there were 96 positive and negative words used and 37 neutral, while Figure 7 shows 110

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**Figure 1:** First line from MPQA Subjectivity Lexicon (Recognizing Contextual Polarity in Phrase-Level Sentiment Analysis, 2005).

**Figure 2:** Words from lexicon to appear in broadcast from February 1988 (Graph by Naomi Gonzalez. National Broadcasting Corporation, 1988).

**Figure 3:** Words from lexicon to appear in broadcast from February 2018 (Graph by Naomi Gonzalez. National Broadcasting Corporation, 2018).
positive and negative words used and 46 neutral words in an October 2018 broadcast.

The following figures are included to offer a better understanding of the overall polarity of each Nightly News broadcast. In February of 1988 and 2018, Figures 8 and 9 respectively depict the percentages of positive, negative and neutral word polarity.

Figures 10 and 11 also depict the percentages of positive, negative and neutral words present in the month of July in 1988 and 2018 respectively. October 1988 and 2018 are presented in Figures 12 and 13 respectively, depicting the percentages of positive, negative and neutral words used in the broadcasts.
In summation, in 1988, 76.0% of all words in all six NBC Nightly News broadcasts over a span of three months had positive or negative polarity and 24.0% of the words were neutral. In 2018, the results were 75.3% positive and negative and 24.3% neutral. Over both years and all months in this study, 75.7% of all words in an NBC Nightly News broadcast were positive or negative and 24.3% neutral. In addition, the pie charts previously presented reflect the individual amounts of positive, negative and neutral polarity words in each broadcast. They are all close in their percentages; each of them took slightly over two thirds of the broadcast dedicated to positive and negative polarity words, while the remaining amount in the broadcast (about 22% to 28%) was dedicated to neutral language.

The trends in the data for the months of February and July in both years studied have extremely close ranges of numerical value. February of 1988 and 2018 had a difference of 10 in the positive and negative polarity range and a difference of three in neutral polarity word count. The difference in July was only two between the positive and negative polarity word counts from each year. From the data it is also clear that 2018 had more neutral words overall when compared to 1988. For instance, two of the three months studied from 2018 (July and October) had neutral word totals of 42 and 46 respectively compared to the 1988 neutral word totals of 35 in July and 37 in October.

**Discussion**

The results for this study proved the hypothesis of this paper incorrect by showing not only was the usage of positive and negative polarity words overwhelmingly apparent across both decade’s broadcasts, it was more prevalent in 1988 for the months of February and July than in the corresponding months of 2018. The amount of neutral words in each broadcast for both years was similar, with 2018 having a few more neutral words used in two of the three broadcasts used. On average, the data supports the fact that all the studied broadcasts for both years had approximately three-quarters of their broadcasts' language dedicated to positive and negative polarity words, leaving only the final quarter to the usage of neutral words.

As alluded to earlier in this study, there are some restrictions and limitations that affect the conclusion of this paper. One such limitation is the amount of time allotted to complete the study. In that given amount of time, only NBC could be studied with three broadcasts.
from 1988 and three broadcasts from 2018. Continuing this study for a longer amount of time would allow for research to be done for every month of both 1988 and 2018. An even longer deadline would allow for the study to include all years in between 1988 and 2018, giving a more complete picture of NBC Nightly News trends over tumultuous times in broadcast journalism.

Conclusion

After reviewing the evidence, it was concluded that despite the changes in mentality surrounding broadcast journalism reflecting a lack of trust for the medium, the language of NBC broadcasts in particular has not changed substantially over the past thirty years and, if anything, has gotten slightly more neutral rather than less.

Regarding the lack of any notable shift, several potential factors exist. The first of those factors could be NBC itself. NBC boasts a reputation of being one of the oldest in the field of television news and a largely unbiased style of reporting. Maintaining this reputation could lead to a consistent use of positive, negative, and neutral words in broadcasts over the years. Conceivably, they could have found a method that gives them the credibility they work towards.

Another potential factor could include a slight response to the public’s objections to television news in 2016. In order to oppose the claims that news could be “fake” or untrustworthy, NBC perhaps actively, or even subconsciously, began to make broadcasts with less positive or negative polarity and more neutral polarity. Cotter attests that what makes a news source “good” in the field comes, in part, from its credibility and accuracy. 25 If this is the case, it would be logical that NBC determined to fix any issues viewers had with their broadcast’s credibility because their reputation as a largely unbiased source was at risk.

Furthermore, the results and conclusion of this study imply that, despite the many fields of journalism being closely related, an instance of change for one does not necessarily mean that change will come to other fields. Perhaps more poignant is the implication that positive and negative polarity words are common in broadcasts, regardless of the presence of bias. Given NBC is generally accepted as a center-left source and only a quarter of its Nightly News broadcasts included in this study were dedicated to neutral language, the idea that what most people hear on TV is not as neutral as they think is a definite possibility. For any future research to follow-up this study, the question of the way people define neutral language in broadcast journalism allows for a more impactful conclusion for public betterment.

Participation and citizenship have gone hand in hand since the theory of a democracy was first envisioned. Subsequently, the public emphasis on understanding the current situation of their country or the world around them is not a novel concept. News and journalists are the purveyors of such knowledge and as progress continued throughout history and does still today, more and more people will demand such information. While the fields of journalism have expanded and changed, the human desire for freedom of choice and truth in society remains the same as it was hundreds of years ago. Knowing now that what people perceive as mostly neutral (or center-left) is not as expected, leaves the interesting and poignant possibility that could leave, not only journalism, but communication as a whole with an unprecedented new understanding from the public.

References

1. Boston University Academics. Academics RSS.