

A Case Study Analyzing Online Sentiments on Muslim Women Post 9/11

Laila Alkahlout^{1*}

Due to the fear of Islam post 9/11, Muslim women, in particular, have been dehumanized and portrayed in the media as haunting and as a result have experienced symptoms of PTSD. This article seeks to explain the cause of such public disdain for Muslim women. This case study examines an MSNBC, CNN, and FOX news story in which Muslim women travelled to the amusement park “Rye Playland” in Rye, New York to celebrate a religious holiday but were banned from the rides when administrators cited the Islamic headgear to be a choking hazard. Subjectivity and polarity tests were used to determine categories of comments, and an ethnographic media content analysis of the comments was completed. The results demonstrate that commenters on all three articles expressed their sentiments towards Muslim women similarly. Furthermore, a commonality assessment was completed to identify categorical overlap. The results demonstrated that the cause of disdain towards Muslim women is born out of the association with all Muslims. Recommendations are made to reduce the incidence of this disdain and its negative outcomes in the future that include re-humanizing Muslim women.

INTRODUCTION

After the attacks of September 11th, Muslims have been a widely debated topic in American media and thus in the public (Cagle, et al., 2011). Out of these discussions a distinct narrative of “us versus them” arose that is most clearly demonstrated in a recent study (Powell, 2011) on how *The New York Times*, *Washington Post*, *USA Today*, CNN, MSNBC, and FOX News phrased their portrayals of terror attacks post 9/11. The study found that a terror attack conducted by a Muslim was attributed to a “War of Islam” fueled by hatred of freedom and democracy, whereas a terror attack conducted by a non-Muslim American was attributed to mental illness (Powell, 2011). In addition, Muslim women acquired a post 9/11 “othering” of their own in which they have been described as “ghosts”, “peering dark-eyed from inside their burkhas”, “peeping eyes from within their cocoons” in contrast to how Muslim women see themselves: liberated from the judgmental gazes of men (Eltantawy, 2007).

Much as Muslim women were ascribed a unique narrative, they acquired unique associated consequences. While Muslims in America experienced an increase in hate crimes post 9/11 (Disha and Cavendish, 2011), Muslim women also experienced internalized consequences. In a 2009 study in which all the Muslim women wore head coverings, Muslim Women demonstrated greater incidences than Muslim men of displaying symptoms of Post-Traumatic Stress Disorder including feelings of anxiety, reluctance to leave home, difficulty falling or staying asleep, sadness/tearfulness, suicidal thoughts, and drug use (Abu-Ras and Suarez, 2009).

The ongoing debate on Islam weaves a narrative of neglect and disproportionate bias, which in turn leads to misunderstandings of Muslims, specifically Muslim women, in America. However, this debate fails to connect the criminalization of Muslims in the media to the criminalization of Muslim women. That is why this research will expand the field of knowledge by addressing the question: What has caused Muslim women to be the targets of such public disapproval?

Since previous studies have shown that comments can provide insight on the controversy caused by user comments (Mishne and Glance, 2006), in this case study we attempt to capture the cause of reactions towards Muslim women by analyzing online comments in the news media outlets of CNN, MSNBC, and FOX when they reported a story about Muslim women. The subject of the news story is an event in New York where Muslim women were not allowed to ride roller coasters when administrators cited the Islamic headgear to be a choking hazard. Opinion mining has been used to arrive at conclusions by gauging the subjectivity and polarity of user comments (Nigam and Hurst, 2004). These strategies have been used in this paper as a metric to understand the expression of sentiments towards Muslim women among the audience of the three major news outlets. The subsequent categories of what commenters expressed are: “Muslim Women Oppressed”, “Disparaged Muslims”, “Disparaged Muslim Women”, “Support Muslim Women,” and “No Opinion.” Then a commonality analysis was conducted to show how the subsequent categories of “Disparage Muslims” could relate to the category of “Disparage Muslim Women” in these circumstances.

MATERIALS AND METHODS

In order to capture sentiments and their operationalization, the research method utilized in this case study is an ethnographic media content analysis incorporated with a basic commonality analysis. Burnes and Chantler (2011) define a content analysis

¹ Arizona State University

*To whom correspondence should be addressed.
Email : laila.alkahlout@gmail.com

as a way to analyze and make inferences from a text. In this research, the text is the comments on three articles that cover the same story from three different news sources. Categorizing the comments on the articles will characterize what narrative the comments describe. To create categories sentence subjectivity and polarity must first be assessed.

$$P\{X = x\} = \frac{n!}{(n-x)!x!} p^x (1-p)^{n-x}$$

Equation 1: A binomial distribution is used to compute the probability P of obtaining x comments regarding exclusively disparaging Muslim women.

$$p = \frac{2}{50} \times 100$$

Equation 2: The estimated percentage of commenters disparaging only Muslim women on MSNBC and CNN

Sentence subjectivity can most clearly be defined in its contrast with sentence objectivity. An objective sentence will express some fact while a subjective sentence expresses some personal feelings or beliefs (Liu, 2010). Once a sentence was found to be subjective we determined its polarity: the feature of text that assigns negative or positive expression of opinion or sentiment and may include implicit and explicit expressions (Wilson, et al., 2005). If the comment is found to be subjective, then a determination is made whether the opinions reflected in the comment are positive, negative or neutral. The opinions expressed are categorized using the Sentiment Matrix (See Table 1).

From the subjectivity and polarity tests, trends emerged that determined the categories in which comments would fall. In Table 2, the negative expression category comprises of three categories: comments that were “Fearful/Disparage Muslims,” the comments that were “Fearful/Disparage Muslim Women,” and the comments that expressed the view of “Muslim Women Oppressed.” Positive reactions were categorized as “Support Muslims.” No reaction was categorized as “No Opinion.”

Examples of how commenters operationalized concepts of “Fearful/Disparage Muslims” are “get out”, “obey the laws”, “go home”, and “no sharia law.” When readers would demonstrate the helplessness of Muslim women i.e “Muslim Women Oppressed”, it was not so clearly defined. For example, when readers would defend the Muslim women in the article,

they would ponder if the women did not understand what was going on because they could not read signs that were written in English. The readers operationalized “Fearful/Disparage Muslim Women” in the same way they did all Muslims, however, these comments are distinguished because they included gendered terms such as hijabs, burkhas, and women. The gendered terms allowed for these comments to be categorized under “Fearful/Disparage Muslim Women,” rather than “Fearful/Disparage Muslims.” The category of “Support Muslims” was defined when the commenter identified with the Muslims in the article. Finally, the category of “No Opinion” was defined by comments such as jokes or irrelevant comments.

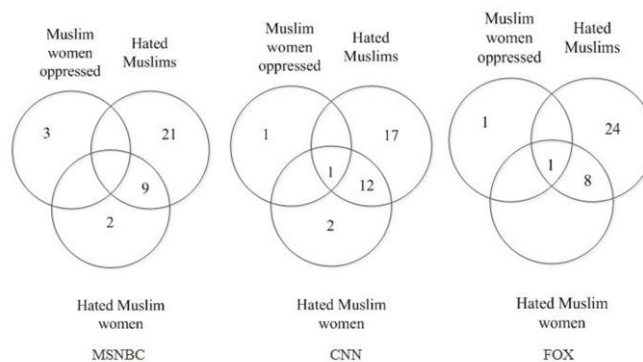


Figure 1: Venn Diagrams showing overlap of reactions for different network comments.

From the resulting categories and sorting of the ethnographic content analysis, a Venn Diagram (See Figure 1) was used to illustrate the overlap, or variables common to more than one category, between the comments on all three networks (Capraro and Capraro, 2001). The qualitative data is a constant comparison for discovering prevalent patterns and themes as the research progressed (Altheide, 1987). The commonality analysis is a more quantitative approach, which will help contextualize qualitative conclusions in the narrative of Muslim women.

As such, the ethnographic content analysis is of the comments left by readers on three online articles reporting about the same 2011 incident involving Muslim women. The story being covered is about young Muslim women not allowed to ride roller coasters in a New York City amusement park because of their head garb potentially endangering them. This leads to a riot between park rangers and patrons, which resulted in arrests and hospitalizations.

The selected news sources for the articles are CNN, FOX, and MSNBC. The method of selection of these sources can be identified as theoretical sampling, as defined by Chambliss & Schutt (2011). That is, CNN, FOX, and MSNBC were chosen in order to allow for a range of viewer political inclinations. FOX was selected as a right leaning provider; and

MSNBC as more left leaning (Feldman, et al., 2011). CNN was selected as the moderate news provider as self-identifying moderates are more likely to choose CNN (Nie, et al., 2010). Cable news providers were chosen rather than network news providers due to the increase in cable news network watching and the decrease in network news watching in recent years (Stephens, 2009). Online news sources allow any readers with access to the Internet to comment. The readers are able to comment under their own names or under an alias. Piecing the sentiments of the commenters together, gives an idea of the sentiments of leftwing, rightwing, and moderate network viewers.

There are approximately 1,200 comments on all three articles, an average of 400 per article. Availability sampling is appropriate in exploring a new setting and trying to get some sense of prevailing attitudes (Chambliss and Schutt, 2011). That is why this method was deployed in selecting the first 50 comments left by commenters on each article. Also notable, the later that a commenter posted a comment, the more likely the comment was in reply to another comment rather than the original article. The first 50 comments began the same day that the story broke, August 31st 2011, and concluded one to two days later.

Lastly, a probability test of the category of “Disparage Muslim Women” was conducted to better understand the generalizability of the sentiments in those comments to all the comments on the articles. A binomial distribution was used to compute the probability P of obtaining x comments regarding exclusively “Fearful/Disparaging Muslim Women” comments (See Equation 1). The software used in the calculations was JMP[®] Pro 9.0. The numbers used in the probability equations discussed are the number of comments that are exclusively “Fearful/Disparage Muslim Women.”

Although the commenters are human, they have already considered their confidentiality by creating aliases online. Nonetheless, since this topic has particularly relevant sensitivities for Americans and for Muslims alike, the commenters’ aliases will not be referenced.

RESULTS

Upon sorting the comments into their respective categories, several trends begin to appear. Table 2 shows the distribution of responses on the three media networks. There are also similar percentages of each category across all the networks. It becomes clear that the majority of comments, 62% across all networks fall into the “Negative Reactions” categories. 22% were “Fearful/Disparage Muslim Women.” Approximately 21.33% had “No Reaction” as it relates to Muslims. 10.67% of comments “Support Muslims.” least of all, 4.67% of comments, expressed sentiments of “Muslim Women Oppressed.” Interestingly, the sum of the distribution is greater than the sum of the comments. This means that there is overlap between various categories for certain comments. One example of an overlap comment is

demonstrated by Commenter 45’s comment (Staff Report, 2011) on the FOX article:

“What IS it that some of these people do not comprehend? Signs, restrictions, rules, warnings, etc. are written and verbalized for a REASON, mostly to save people from themselves. It is all about safety, nothing more. In Fla. there were muslims fighting for women to wear their headgear and face veils for their driver's license, with only their eyes showing... Incredulous! The criminal element would love it. When you're here you do what we do.”

	Sentence Subjectivity	Sentence Polarity	Commenters Assumption
Muslim women oppressed	Yes	Negative	Muslim women are oppressed
Disparaged Muslims	Yes	Negative	Negative perception of all Muslims
Disparaged Muslim Women	Yes	Positive	Negative perceptions of Muslim women
Support Muslim Women	Yes	Positive	Support Muslim Women
No Opinion	No	Neutral	N/A

Table 1: Sentiment matrix to characterize types of user comments on cable news

networks using sentence subjectivity and polarity metrics.

This comment expresses “Fearful/Disparage Muslims” by pondering what “these people do not comprehend?” and “When you’re here you do what we do” and further, but separate, disdain for Muslim women indicating that Muslim women covering their faces for licenses is “Incredulous!”

By analyzing the commonalities in the overlap of the negative reaction comments, it becomes clear how the categories relate and how commenters associate them. 87.9% of comments that are “Fearful/Disparage Muslim Women” are also “Fearful/Disparage Muslims.” A unique characteristic of FOX is that all of the comments that hated Muslim women were also comments that hate all Muslims (see Figure 1). The unique feature of MSNBC is the Muslim women oppressed category. There are a higher number of comments that feel that Muslim women are oppressed on the MSNBC article than on the CNN and FOX articles combined. Also unique to MSNBC is that the Muslim women oppressed category had no commonality with any other negative reaction category. As seen in Table 2, CNN had the greatest number comments that disparaged Muslim

women. However, Figure 1 illustrates that an almost even number of comments share Disparaged Muslims and Disparaged Muslim women (13) as do solely Disparage Muslims (17).

We then tested the generalizability of the comments that exclusively disparage Muslim women using the statistical software, JMP[®] Pro 9.0. From the Venn Diagrams, we obtain the number of commenters who exclusively disparage Muslim women: MSNBC = 2; CNN = 2; FOX = 0. This data is analyzed as binomial because there is either of two possible outcomes: that the comments exclusively disparage Muslim women or that the comments do not exclusively disparage Muslim women.

The estimated percentage of commentators disparaging only Muslim women on MSNBC and CNN is demonstrated in Equation 2. where p is the percentage of comments exclusively disparaging Muslim women. A binomial distribution is used to compute the probability P of obtaining x comments exclusively disparaging Muslim women (See Equation 1).

The binomial distribution was calculated with $p = 4\%$ and $n = 1000$. Calculating the probability of x ranging from 1 through 1000 and filtering out the least probable outcomes created a binomial distribution plot. We obtain a binomial distribution with a peak of 39 (See Graph 1).

Hence, for a sample of 1000 comments we expect the most likely outcomes to be 39 or 40 comments exclusively “Fearful/Disparage Muslim Women” out of 1000 total comments. The distribution also demonstrates that the likelihood of observing more than 60 comments disparaging Muslim women is negligible. Further, these statistics are true for both CNN and MSNBC, but not FOX because FOX news did not have any comments that were exclusively “Fearful/Disparage Muslim Women.”

DISCUSSION

The fact that there are no uniquely “Fearful/Disparage Muslim Women” comments on the FOX article, and very few on the CNN and MSNBC articles, demonstrates that the concept of fearing or disparaging of Muslim women is not born independently. In the CNN and MSNBC articles, two of the comments have no link to “Fearful/Disparaging Muslims.” However, in the FOX article, all the comments under the “Fearful/Disparage Muslim Women” category are common to the “Fearful/Disparage Muslims” category. As a result, it can be concluded that none of the FOX commenters that were fearful of or disparaged Muslim women formed that analysis independently of their fear/disparagement of all Muslims. The overall low number of comments that independently Fear/Disparage Muslim women reinforces that the majority of disdain towards Muslim

women is not born of analysis of Muslim women independently, but for their association with the criminalized Muslim community at large.

	Negative Reaction			Positive Reaction	No reaction
	Muslim Women Oppressed	Fearful/Disparage Muslims	Fearful/Disparage Muslim Women	Support Muslims	No opinion
MSNBS	3	30	11	6	10
CNN	2	30	14	5	12
FOX	2	33	8	5	10

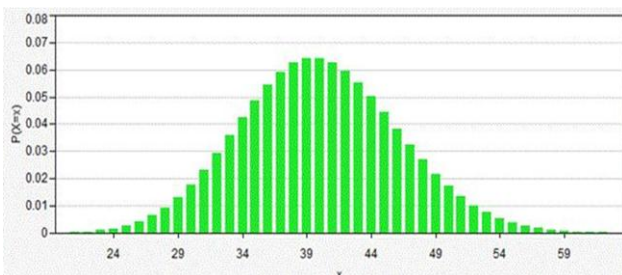
Table 2: Distribution of comments on cable networks based on opinion criteria

MSNBC demonstrates the overflow of “Fearful/Disparage Muslim Women” from “Fearful/Disparage Muslims”, but also demonstrates a sub-narrative of feminism: that Muslim women need to be freed from patriarchy. The lack of commonality between the comments that are “Muslim Women Oppressed” and any other category demonstrates that this perception was formed through an independent analysis. This is interesting because it demonstrates greater analysis than the other network comments.

The even distribution of commonality among CNN comments supports the notion that they are a “moderate” news provider. Though most of comments that were “Fearful/Disparaged Muslim Women” were overflow from “Fearful/Disparage Muslims,” there is a close number of shared Fear/Disparagement as independent Fear/Disparagement. So while CNN’s commenters are supposedly moderate as compared to MSNBC and FOX, the comments do not distinguish their “Fear/Disparagement Muslim Women” from their “Fear/Disparagement Muslims.” Then it can be concluded that no matter if a commenter is reading a liberal or moderate source of information, if they disparage Muslim women, some of that disparaging will have been born of a greater disdain for all Muslims.

While the implications of this case study are significant, it is noted that the research methods have the following limitations: Manual data mining was performed instead of algorithm based automated data retrieval. Because of this the comment sample only comprises of 50 user comments from each of the three news outlets. Moreover only the first 50 comments were analyzed. While this is a sufficient sample set for this case study, the sample is not sufficient to generalize these results to the entire audience of the three major news outlets or to the American public. Also, the subjectivity and polarity of user comments is analyzed based on literature to characterize what people express, however, it is impossible to gauge what people truly feel about the topic or the motivations behind their views

based on their comments. Three major news outlets CNN, FOX, and MSNBC were chosen to allow for a range of viewer political inclinations. FOX was selected as a right leaning provider; and MSNBC as more left leaning (Feldman, et al., 2011). However, what makes someone read news on CNN, FOX or MSNBC websites may not be linked to their political views.



Graph 1: Probability of comments exclusively disparaging Muslim women in a sample of 1000 comments. Data from a sample of 50 comments is used to forecast opinion in a larger population. The original data is binomial with either of two outcomes: comments exclusively disparaged Muslim women or comments that did not exclusively disparage Muslim women. Most probable outcome is 39 comments out of 1000 disparaging Muslim women. Probability of more than 60 comments out of 1000 disparaging Muslim women is negligible.

Conclusion

This case study highlights that the significant victimization of Muslim women has less to do with the Muslim women themselves, and more to do with their association with all Muslims. One way this could be done is by reversing the “othering” of Muslims in the media and thus re-humanizing them.

To do this, cable networks could run stories on various kind acts done by average Muslims. An example to follow may be TLC’s “All American Muslim”, in which the average American is taken into the homes of an average American Muslims. By decreasing the overall hatred of Muslims, there is little left to overflow onto Muslim women. Until that happens, conversations that discuss racial, ethnic, age, and level of conservatism diversity within the Muslim women community will help paint a portrait of autonomy. Interfaith conversations between mosques and churches could also help. Receiving a counter message to hatred will help curb some negative reactions to Muslim women.

Future research will focus on an automated search algorithm to analyze a broader corpus of comments related to Muslim women in the media. That data will be more statistically significant and allow for arriving at more generalizable

conclusions as they pertain to Muslim women. Further research could also be conducted to analyze the categorical commonality patterns across network news providers as compared to cable news providers. This article does not address any overlap between supportive reactions and oppressed categorizations. More studies are also needed to assess the full extent of the damage caused to Muslim women as a result of their public disdain. It would also be beneficial to analyze if the disdain “spillover” is caused by the outward appearance of wearing head coverings and whether that makes women more susceptible to the fear and disparagement of all Muslims. These studies, combined with diversity in media portrayals, will ultimately change the discourse away from causing mental and physical harm to Muslim women to a comprehensive understanding of reality.

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