Laughing the Politically Incorrect Way: Humor Usage on the 4chan /pol/ Forum

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March 25, 2020

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Acknowledgments

Many thanks to my thesis advisor, Dr. Charles Kurzman, for guidance and edits, and my honors thesis class instructors, Dr. Howard Aldrich and Melissa Manzanares. Additionally, thank you to Matt Jansen, for his invaluable help with statistics and R, and to my thesis reader, Dr. David Schanzer. Special thanks to the Office of Undergraduate Research and the UNC-Chapel Hill Sociology Department for travel funding to present this research.

Abstract

Journalistic evidence suggests an increasing link between right-wing extremist groups and humor usage. I investigate archives from the "politically incorrect" /pol/ forum on 4chan, an anonymous imageboard website. While not every individual on the /pol/ forum is a right-wing extremist, many have views consistent with right-wing extremist ideology. I am interested in how humor is used on the /pol/ forum. I use three main methods. 1) Latent Dirichlet Allocation (LDA) topic modeling is being used for 4chan comments from years 2014-2018 to identify common topics and trends. 2) Qualitative text analysis is used to analyze 1,000 comments obtained from 4chan archives for years 2014 and 2018 for humor usage and prevalence of politically incorrect rhetoric (possibly indicating extremist views). 3) Image analysis is used to analyze 650 images from 2014-2018. Analysis of LDA topic modeling shows that most topics center around race, sex, and religion. Racial slurs and expletives are commonly used to discuss these topics. While there are slight differences in what topics are grouped together year by year, overarching themes remain consistent. Qualitative text analysis and image analysis show that ridicule is the most used humor type, and racial minorities - specifically African-Americans - are the most common targets. I explore rhetoric and humor nuances, and conclude that humor is a powerful online tool, used by those on the /pol/ forum to take over symbols in mainstream media and create in-group solidarity.

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Introduction

Between 1990 and 2012 far-right extremist groups have claimed over 600 lives in the United States. More than half of these events were committed by white supremacists (Chermak, Freilich, Suttmoeller 2013). Recently, there has been a resurgence of right-wing hate crimes in the United States. The SPLC documented more than a thousand "hate incidents" in the 34 days after President Trump's election in 2016, and they report that the number of hate organizations has doubled between 1999 and 2016 (Cunningham 2018). As far-right extremist incidents continue to rise, tactics of these groups have begun to change. Perhaps most peculiar is the usage of humor and social media to gain members. Andrew Anglin, a known white supremacist, explained in a blog that the usage of humor is necessary to understand the "headspace" that people within the white-supremacy movement occupy (Greene 2019).

Humor, for most people, is considered light, fun, and associated with happiness. Meanwhile, these violent attacks perpetuated by white supremacists and other far-right extremists seem the exact opposite. This apparent juxtaposition has motivated my interest in the topic of humor within groups that espouse hateful, or even potentially violent, rhetoric. In particular, for this paper I sought to investigate how, and to what extent, humor is used by right-wing extremist groups on social media. In the process, I hope to also see what types of humor are commonly employed, and hypothesize as to what purpose this humor usage serves.
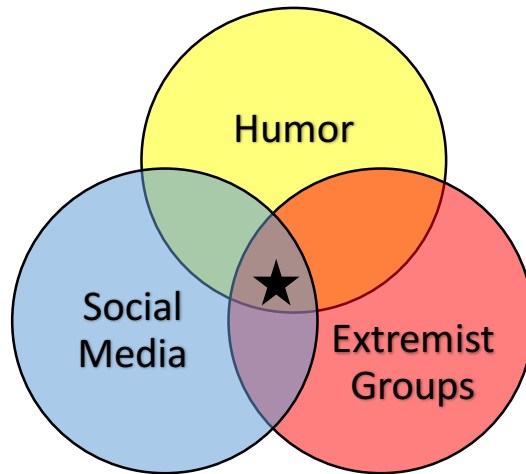
Figure 1: *I am interested in the area at the intersection of these 3 topics (location of star), and discovering how extensive, prominent, and unique this area is.*

I have chosen to focus on right-wing extremist groups due to the importance of increased research into these groups. In popular culture movies and television shows it is common for the hero to be a white actor, while the terrorist is often an Arab actor. The media also reflects this bias, as terrorist attacks that occur in the United States that are committed by white, Christian individuals are often underreported (Kearns, Betus, Lemieux 2017). It is important to identify and combat this bias in order to formulate a response to increased attacks by right-wing extremist groups. Additionally, it is important to note the thinking that members of these extremist groups adhere to. This will lead to a greater understanding of how these members seek to recruit new members and plan events, and will hopefully guide ways to counter those efforts.

This paper is also important as a way to further understand and categorize humor. Humor plays a role in our everyday life, and it is clear that there are divisions of humor. Some humor is used to promote inter-group solidarity. Humor can be used to make others feel included or "in the know." Humor can strengthen bonds between strangers as well as friends and family. However, Humor can also be biting. It can be made at the expense of others, such as for the purpose of pointing out a difference and raising the status of the joke-teller (Beasley 2019; Bell 2002; Martin 2007). There has been significant research conducted on categories of humor, but there is a lack of consensus on how categories should be organized (Beasley 2019). This problem makes it difficult to group similar statements of humor together. Figuring out how to categorize humor broadly, and especially humor that is potentially vile and violent, is something I must tackle before drawing conclusions about what types of humor are used by right-wing extremist groups.

The vessel in this paper that will transport information on humor usage and extremist groups and tie it together is social media. Social media is a unique platform as ideas can span the globe almost instantaneously, and as such social media is a great tool for recruitment. There is evidence that social media is used by right-wing extremist groups for the purpose of recruitment and spread of information, and, additionally, there is evidence that some of this information is presented as humor (Greene 2019). The spread of memes, for example, originated from social media as a way for a picture to be re-purposed in, usually, humorous ways, for a variety of contexts. Right-wing extremist groups have succeeded in using and

claiming some memes, such as Pepe the Frog[1], to the extent that some of these symbols

become repurposed as hate symbols (Nissenbaum and Shifman 2017; Zannettou et. al, 2018).

I wanted to choose a social media platform that is broad enough to potentially encourage

recruitment efforts and to represent varying viewpoints, but also one that seems private

enough for people to feel comfortable sharing their true opinions, not matter how politically

incorrect or deviant. Journalistic evidence has led me to believe that the /pol/ forum on 4chan

will be useful to use for my data as right-wing extremists have flocked to 4chan, attracted by

the "politically incorrect" category that /pol/ represents, as well as the anonymous nature of

the website. Although the /pol/ forum is filled with bigoted, paranoid and violent ideas

consistent with the ideology of a right-wing extremist, it is not accurate to label every individual

on the forum as a "right-wing extremist." Therefore, although I hope data captured will show

reflections of right-wing extremist ideology and tactics, I will refer to users of the /pol/ forum as

simply "politically incorrect," not "right-wing extremists."

I plan to have three components to my methods. First, I want to take a macro look at how /pol/

forum users are using 4chan over time. I will do this by using topic modeling of 4chan

comments for the years 2014 through 2018. Second, I want to take a more micro look at how

individual comments display humor. I plan to do this by taking a random sample of comments

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[1] Pepe the Frog is a "sad frog" that originated as a cartoon character. The frog became repurposed on the internet as a meme, with individuals adding text to the picture of Pepe that was designed to be funny and/or to make a statement. Although the meme originally was used largely in non-racist ways, as the meme became popular on 4chan, 8chan, and Reddit it became widely used by white supremacists (ADL website).

from 2014 and 2018 focusing on politically incorrect rhetoric. I will then analyze these comments and hand-group them into categories of humor and topics. Lastly, I will repeat the second method, but with a random sample of images.

At the end of this paper, I will evaluate my methods, and conclude that politically incorrect humor usage is prolific and powerful in several different ways. There will be an exploration of rhetoric usage and the nuanced differences in humor usage between topics, as well as suggestions for further research.

Literature Review

For my literature review I want to first look at how humor and jokes are used in broad, everyday contexts. I will explore difficulties of categorizing humor, and how past researchers have looked at humor. Next, theories as to the motivations of white supremacy and other right-wing extremist groups will be described, as well as recent tactics of these groups such as spreading memes. Lastly, humor and right-wing extremist ideas will converge on the platform of social media. This paper will detail why 4chan, and specifically the /pol/ forum, is in a unique position to be studied for the intersection of humor and right-wing extremist ideas.

Categories of Humor

Difficulties

Humor usage is complex. Humor serves many different functions, and occurs in many different social interactions (Martin 2007). The variability of humor makes it difficult to study. First, the

definition of what is humorous varies from individual to individuals, especially if those

individuals grew up in different cultures (Bell 2002). Second, even when a statement is

categorized as humorous, it becomes difficult to decide how to categorize that humor. Is it

sarcasm or satire? Neither? Both? In the following sections I will review the current literature in

an attempt to shed light on problems inherent to the study of humor. I will highlight three

humor theories, three functions of humor, and, lastly, multiple categories of humor.

Humor Theories

Historically, there have been three overarching theories of humor. 1) Aggression-based 2)

Repression-based, and 3) Incongruity-based (Beasley 2019; Bell 2002).

1. Aggression-based humor theories are some of the oldest, and suggest that humor is used

largely as a tool to put someone else down. Aggression-based humor would include laughing at

someone else's misfortune.

2. Repression-based humor focuses on the emotions of the listener. It is a symptom of nervous

energy that builds up inside an individual as a result of societal constraints on desires. This type

of humor is often associated with Sigmund Freud.

3. Incongruity-based humor theories propose that humor occurs when something does not fit a

certain situation, or it is inappropriate in that context. Beasley (2019) presents the following

scenario as an example:

Customer: "Do you mind if I try those pants on in the window?"

Salesperson: "Wouldn't it be better to use the fitting room?"

These three theories are not always mutually exclusive. Trnka (2011) described a change in humor among ethnic groups during a dangerous and violent coup in Fiji. Racist jokes were used to display aggression against the ethnic "other" and to assume superiority. This is a form of aggression-based humor. However, at the same time, a lot of the humor used by individuals during the coup sought to point out absurdities about the situation they were in. This seems more like repression-based or incongruity-based humor.

Functions of Humor

The three theories mentioned above help explain what causes humor and why individuals find certain things funny, but it is still necessary to look at what the specific functions of humor are. Why do people choose to tell jokes and use humor? While there are many described functions of humor, the most commonly cited can be boiled down to three main categories (Beasley 2019; Martin 2007).

1) Stress Relief and Coping: Humor can be used in serious situations as a way to de-stress. For example, Trnka (2011) describes an increase in humor during a violent coup.

2) Maintaining and Establishing Relationships: We can see humor used in this function in everyday language. Laughter shared between friends and family is way to connect with others.

3) Influence the Behavior of Others: The targeting of humor can influence the behavior of either individuals or groups. For example, if somebody at work complains about the amount of work they have, co-workers can validate them and their in-group status by joking about the boss. On the other hand, co-workers can exclude the complaining individual by making fun of their complaints. This can influence the future behavior of the individual who complained about work (Beasley 2019).

Categorizing Humor

Researchers from fields ranging from philosophy to linguistics have developed methods of categorizing humor (Beasley 2019; Dynel 2009). There is a sentiment among some researchers that these methods reflect the field from which they emerge (Attardo 1994; Dynel 2009). For example, linguistic theories may focus more on the elements of what makes humor unique, while sociology and psychology tend to focus on production, development, and reception (Attardo 1994).

At the most basic level, it is simple to make a list of different types of humor. We use these basic descriptions of humor in everyday language. Researchers have been able to compile categories such as puns, riddles, satire, sarcasm, etc., based on intentions of humor (Beasley 2019; Martin 2007).

Forms of Humor

Canned Jokes	Irony	Mockery

Narratives or anecdotes	Banter	Double Entendre
Puns	One-liners	Wordplay
Riddles	Self-deprecation	Teases
Satire	Hyperbole	Parody

Table 1: *Aaron Beasley (2019) provides an overview of simple categories of humor in his paper "Using Sitcoms to Measure Humor Comprehension between L1, L2, and Bilingual Users of English: Implications for Pragmatic Research."*

A problem with this categorization is the tendency of humor to overlap between these categories. Ways to attempt to categorize humor while taking this overlap into consideration include focusing on the broader intended function of a humorous statement, or focusing on the supposed origin of the humorous statement.

Right-Wing Extremist Groups

Reasons for rise

A basic understanding of what causes right-wing extremist groups to rise up is necessary when looking for possible ways these groups attempt to recruit. Theorists have identified three main reasons why groups spring up (Cunningham 2018).

1. Perceived threat to social position: Groups originate when they feel threatened by other groups, regardless of whether or not this fear is validated. This can be seen in the White Genocide conspiracy theory, where some individuals believe and act on the belief that other groups are seeking to cause the extinction of the white race.

2. Political process approaches: This can occur when there is a political opportunity including the presence of allies, division of elites, and the diminished capability of state to engage in repression. Some studies report a spike in white supremacy groups during key moments of the Trump election, lending to the theory that some right-wing extremists view President Trump as an ally (Cunningham 2018; Greene 2019). For example, in 2016, during President Trump's first year in office, he talked of "radical Islamic terrorists" and sought to impose a travel ban to enforce a "total and complete shutdown of Muslims entering the United States." During this time, anti-Muslim groups rose sharply with a 197% increase from 2015 to 2016 (Cunningham 2018).

3. A combination of both: Cunningham (2018) argues for a combination of political process approaches and threat. Specifically, Cunningham draws a distinction between hate organizations and hate incidents to argue that threat predominantly drives organizations and opportunity predominantly drives hate incidents.

Memes

Right-wing extremists recently have been using social media to spread memes that advance their ideology. Memes are pictures with words accompanying them that are designed to be funny and/or make a point. Memes are simple to create. They can be easily remixed and structured to the will of the creator, while still retaining their original concept. Because of this versatility and simplicity, memes are able to go viral online, and can be applied to almost any situation (Nissenbaum and Shifman 2017; Zannettou et. al, 2018). Memes originated from image board sites like 4chan and Reddit, but have spread to more mainstream social media

platforms (Greene 2019). Memes have the ability to sway and influence popular opinion

(Zannettou et. al, 2018).

Figure 2: *An example of a meme. This image, taken from Charlie & the Chocolate Factory uses Willy Wonka's expression to ironically mock interest in a topic (The Unreliable Narrator 2017).*

Most memes are non-racist, however, memes are a notable tactic of right-wing extremist

movements. On a neo-Nazi blog named the Daily Stormer, founder and editor Andrew Anglin

explains how within the alt-right, "irony and vulgarity meet conscious idealism, futurism and a

deep reverence for objective, scientific data" (Greene 2019). One of the more famous memes

notable for its use among right-wing extremist groups is Pepe the Frog. Although Pepe the Frog

did not originally have racist connotations, as it spread through online venues that are

notorious for creating deviant content, such as 4chan, 8chan, and Reddit, the meme became

very popular for usage in hateful contexts. The Anti-Defamation League now recognizes Pepe the Frog as a hate symbol (ADL n.d.a; Greene 2019).

Extremist Ideas on 4chan

4chan

Journalistic evidence points to 4chan as a haven for extremist and deviant ideas. 4chan is known for the origination of memes (Greene 2019), and it is thus a good place to go when looking for the intersection of extremist groups and humor. 4chan is also known for advocating jokes and pranks. For example, the "okay" hand symbol has been used for years to symbolize understanding. In 2017 hoaxes began to emerge from 4chan aiming to infiltrate mainstream media and convince others that innocuous symbols represent white supremacy/extremist ideas. The "okay" hand symbol was one of the more successful hoaxes, and began to be co-opted by members of white supremacy groups in a serious way to represent "white power" (the hoax began by claiming that when a hand made the "okay" symbol it created a "W" and a "P" for "white power") (ADL 2018). After the 2019 Christchurch shooting in New Zealand, the attacker, a white supremacist, flashed the "okay" symbol in a courtroom appearance (BBC 2019).

Another example of a 4chan hoax is the "Pizzagate" conspiracy theory. In November 2016, 4chan users combed through leaked emails from John Podesta, Hillary Clinton's campaign manager, and constructed a narrative implying that the emails included coded messages about a pedophilia ring run by Clinton and other members of the democratic party. Likely, this

conspiracy theory initially started on /pol/ as a form of ironic humor, but the conspiracy theory

was picked up by right-wing news outlets and ended up with half of Trump voters in 2016 giving

some measure of credence to the "Pizzagate" conspiracy theory. In December 2016, an armed

man entered a Washington D.C. pizza place looking to save victims of the pedophilia ring

(Tuters, Jokubauskaité, and Bach 2018). This conspiracy theory demonstrates the power 4chan

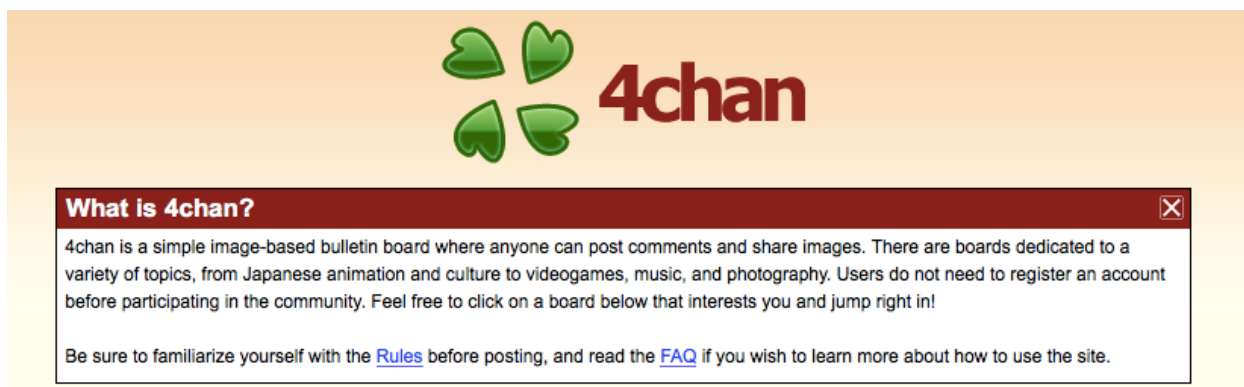users have to design hoaxes and conspiracies capable of infiltrating mainstream media.

Figure 3: Banner from top of 4chan homepage (4chan n.d.b).

4chan is a unique social media site due to its anonymous nature. Although users on 4chan can

choose a username, multiple users are allowed to choose the same username. This makes it

nearly impossible to distinguish users (Nissenbaum and Shifman 2017). Additionally, users who

choose usernames are often vilified by others in the 4chan community for separating

themselves from the anonymous community. This further entices users to stay under the veil of

anonymity (Ludemann 2018). 4chan's anonymous nature has allowed the website to receive a

reputation of deviant and often offensive ideas and language.

4chan takes a simple image board format where users choose boards to post on. Boards have different themes such as politically incorrect, anime, and random. Within boards, users can post an image and/or a body of text to initiate a thread. Others then post comments under the initial thread (Nissenbaum and Shifman 2017).

Figure 4: Nov. 14, 2019 screenshot of boards listed on 4chan homepage (4chan n.d.b).

According to 4chan, there are over 22 million monthly visitors worldwide and between 900,000 and 1,000,000 posts per day. Nearly half of those visitors are from the United States. Most visitors are between the ages of 18-34, with approximately 70% male and 30% female. Most visitors attended, or are currently attending, college (4chan n.d.a.). These demographics, however, likely differ across different boards.

Origin of /pol/

/pol/ is a message board that stands for politically incorrect. It encourages users to discuss political themes and news with politically incorrect rhetoric. This leads to many of the comments on /pol/ displaying racist, sexist, and/or violent overtones. The emphasis on politically incorrect rhetoric is opposed to rhetoric that is politically correct. Politically correct rhetoric focuses on inclusion and is stereotyped as being tied with political left-wing ideology. Many on /pol/ view their usage of politically incorrect rhetoric as an escape from social policing that produces politically correct rhetoric. Recent journalistic evidence suggest that white supremacists and other racial extremist groups contribute greatly to /pol/ discussions, likely enticed by the freedom to voice opinions not welcomed in other spheres (Ludemann 2018). Janet Reitman studied /pol/ for a story published by *Rolling Stone*. Reitman writes that 4chan did not always have a racial focus, but the tone of 4chan did swing drastically to the right after 2012. This is partly due to white-supremacists and other right-wing extremists seeking opportunity on 4chan[2]. On Stormfront, a prominent white-supremacist website, talk began around 2012 of how /pol/ was a unique opportunity to help young people become "racially aware". Discussions on /pol/ then first shifted to white nationalist ideas laden with irony, to sincerer white nationalist beliefs (Reitman 2018).

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[2] Although there is evidence of the prevalence of right-wing extremists on the /pol/ forum, it would be inaccurate to assume every individual on /pol/ is a right-wing extremist. Therefore, although I believe my analysis is reflective of right-wing extremist ideology and tactics, I will label users of the forum throughout this paper according to the only label they self-identify as, "politically incorrect," as opposed to "right-wing extremists."

Figure 5: *Nov. 14, 2019 screenshot of top of /po/ forum. Note comic at top of page indicating humor usage.*

Methods

Data

I aimed to find textual and image-based social-media data that would reflect views held by extremist groups. Textual data has the ability to express meaning through models and textual analysis, while image-based data is important due to the popularity of memes which spread ideas, humor, and cultural capital with images. Social media provides an excellent platform for finding textual and image-based data as the prevalence of social media captures a wide variety of people, while also providing an opportunity for niche groups to form online.

Journalistic evidence led me to believe that 4chan, with millions of unique visitors every day,

was the best social media outlet for this (Bilton 2010). 4chan is a website inspired by a similar

Japanese image board. 4chan has a simple design, with messages and image boards grouped by

topic. For example 4chan's "Random" board includes topics not included by the other boards,

and is known as "/b/." 4chan is known for fostering subcultures and activism groups. These

groups feel safe expressing themselves and advocating their viewpoints due to the anonymity

of 4chan. There are no usernames, and most individuals choose to post under the title

"Anonymous". 4chan has become a haven for the right-wing extremists according to journalistic

evidence. This is especially true in the /pol/ forum (Ludemann 2018; Thompson 2018).

4chan automatically deletes old threads as new ones are created. A sister site to 4chan, 4plebs,

keeps all data from 4chan and archives it. 4plebs then dumps the archived data into

archive.org, a non-profit digital library (Thompson 2018). Through archive.org, I was able to

download text comments as well as images posted in the /pol/ forum from 2014-2018.

Procedures

I was interested in the prevalence of politically incorrect humor on the 4chan /pol/ forum, types

of humor used, topics on the /pol/ forum, and the intersection of types of humor with different

topics. Additionally, I was interested in how topics and humor changed over time. To answer

these questions, I pursued three different methods; 1) LDA Topic Modeling, 2) Qualitative Text

Analysis, 3) Image Analysis.

1. LDA Topic Modeling

Topic modeling is a form of statistical modeling that aims to go through documents and identify

topics from text. Topic modeling has become more prevalent in the social sciences in recent

years as datasets grow in size (Ramage et al. 2009). Latent Dirichlet Allocation (LDA) is a

common type of topic modeling that I was able to use with R to identify topics in 4chan

comments. Computing power was an issue with viewing and downloading all the comments

available, an estimated 173 million for 2014-2018. Using R, I took a random 1% sample to

obtain 1.7 million 4chan comments. I chose to sample across groups instead of within, so years

with more visitors would be represented by more comments. The total comments analyzed are

represented in the chart below.

1% Sample of all Comments distributed by Year

Year	# of Comments Analyzed
2014	154,917
2015	193,911
2016	454,175
2017	499,471
2018	431,285

Table 2: Comments distributed by year. I took a 1% sample of the total 173 million comments

between the years 2014-2018.

After sampling, I created several different topic models for each year, making sure to exclude common stop words, such as "the", "a", "'an", etc.

The purpose of LDA modeling is two-fold. First, it is useful in tracking the prevalence of politically incorrect rhetoric and topics over time. This is the most common usage of topic modeling, tracking ideas and themes. While not all comments on /pol/ are extremist, the politically incorrect theme of the board seems to encourage hostile attitudes against groups of people. Second, a more nuanced purpose, is the hope I had that it would help to identify terms associated with extremist views and politically incorrect rhetoric, thus aiding in developing metrics for humor. I have chosen to use R to create a variety of topic models ranging from 2 topic 7 word models to 7 topic 25 word models. I did this in an attempt to find a model that would capture a wide variety of topics, while also still providing a focused overview of words for those topics.

2. Qualitative Text Analysis

I downloaded 500 4chan /pol/ forum comments from 2014, the first year available, and 500 comments from 2018, the last full year available, to analyze a change over time. I chose 500 for each year in the hopes that this would be manageable while still providing adequate coverage. When I selected only comments that had politically-incorrect content, I was left with 79 comments for 2014 and 99 comments for 2018. I uploaded these comments to ATLAS.ti, a qualitative data analysis software. After reading some of the comments and studying politically-incorrect rhetoric, I created a definition of "politically incorrect comments" that aimed to identify attacked groups. The definition used was, "Expressing hate, mockery, or superiority for

a group of people (or an individual that is representative of a group) who have been historically

oppressed on the basis of race, class, sexuality, gender, religion, beliefs, disabilities, or

nationality." I decided to code for the eight topics mentioned in the definition (race, class,

sexuality, gender, religion, beliefs, disabilities, and nationality) as well as types of humor. After

reading through many of the comments, and drawing inspirations from humor researchers such

as Beasley (2019) and Martin (2007), I came up with four categories of humor: exaggeration,

irony, wordplay, and ridicule. I also added an "other category" for comments that seemed

humorous but did not match any of my categories.

Name	Definition	Example
Exaggeration	Over-emphasizing a situation/saying something that context or syntax indicates you don't mean to the extent the statement taken by itself would mean.	>get on train\ >see woman reading book I've read\ >\"that's a great book, have you read his other stuff?\"\ >contribute to violence against women
Wordplay	Twisting normal word usage/pronunciation/spelling for a humorous effect. Can also include poems and metaphors not consistent with definition of satire.	Yeah, fascist behaviour is hitlarious, amirite anon?
Ridicule	Definition from Lexico (n.d.b) "The subjection of someone or something to contemptuous and dismissive language or behavior."	The last time I got in trouble for saying retard I was 10 years old.\ \ That's the mentality of these sjws, they are like little children who crawl up into a little ball and

Name	Definition	Example
		cry for teacher if you say any naughty words.
Irony	Definition from Lexico (n.d.a) "The expression of one's meaning by using language that normally signifies the opposite, typically for humorous or emphatic effect."	>Because that's what the Quran and recorded history says\ > Remember the Quran said it was right so it must be right. Even though we have no reason to believe the Quran.\ > This isn't circular logic at all!

Table 3: Definition of humor types and examples.[3]

Comments were assumed to be non-humorous unless they specifically had rhetoric or phrases that indicated humor. This could be tricky, with a fine line separating non-humorous insults and humor I coded as rhetoric. For example, below is a comment made that was coded as humorous.

Could I announce I'm kinggender and ask people to refer to me by 'your highness'?

This comment is making a point through imagery that is so exaggerated it seems to be intended as humorous. The next statement below, on the other hand, was coded as a non-humorous comment.

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[3] I have decided to leave in typographical errors when replicating quotes from 4chan for the purpose of accurately representing them.

> *Every Irish person I've ever met has been a f***ing Socialist and insult Britain and England while living here, I hate them so god d**n much.*

Since this comment gives no indication of humor, it was treated as a non-humorous statement.

For each comment, I first decided if the comment was politically incorrect. I did not code the comment if it was not a politically incorrect comment. If it was politically incorrect, I coded the comment according to the dominant topic it centered on as well as the dominant type of humor, if applicable. While some comments could apply to multiple topics or multiple humor types, I chose to code for only the most dominant type for simplicity of analysis. I did not code the comment if it was not a politically incorrect comment, with two exceptions; if it was an anti-politically incorrect comment or if it was politically incorrect - non-oppressed. Anti-politically incorrect I defined as, "Explicitly expressing disdain or disbelief in politically incorrect comments or beliefs." Politically incorrect - non-oppressed is defined as, "Expressing hate, mockery, or superiority for a group of people (or an individual that is representative of a group) on the basis of race, class, sexuality, gender, religion, beliefs, disabilities, or nationality who have historically *not* been "oppressed." There were only two examples of both of these later categories, so I lumped them together into "other." The charts below show an overview of the coding as well as a list of all potential codes.
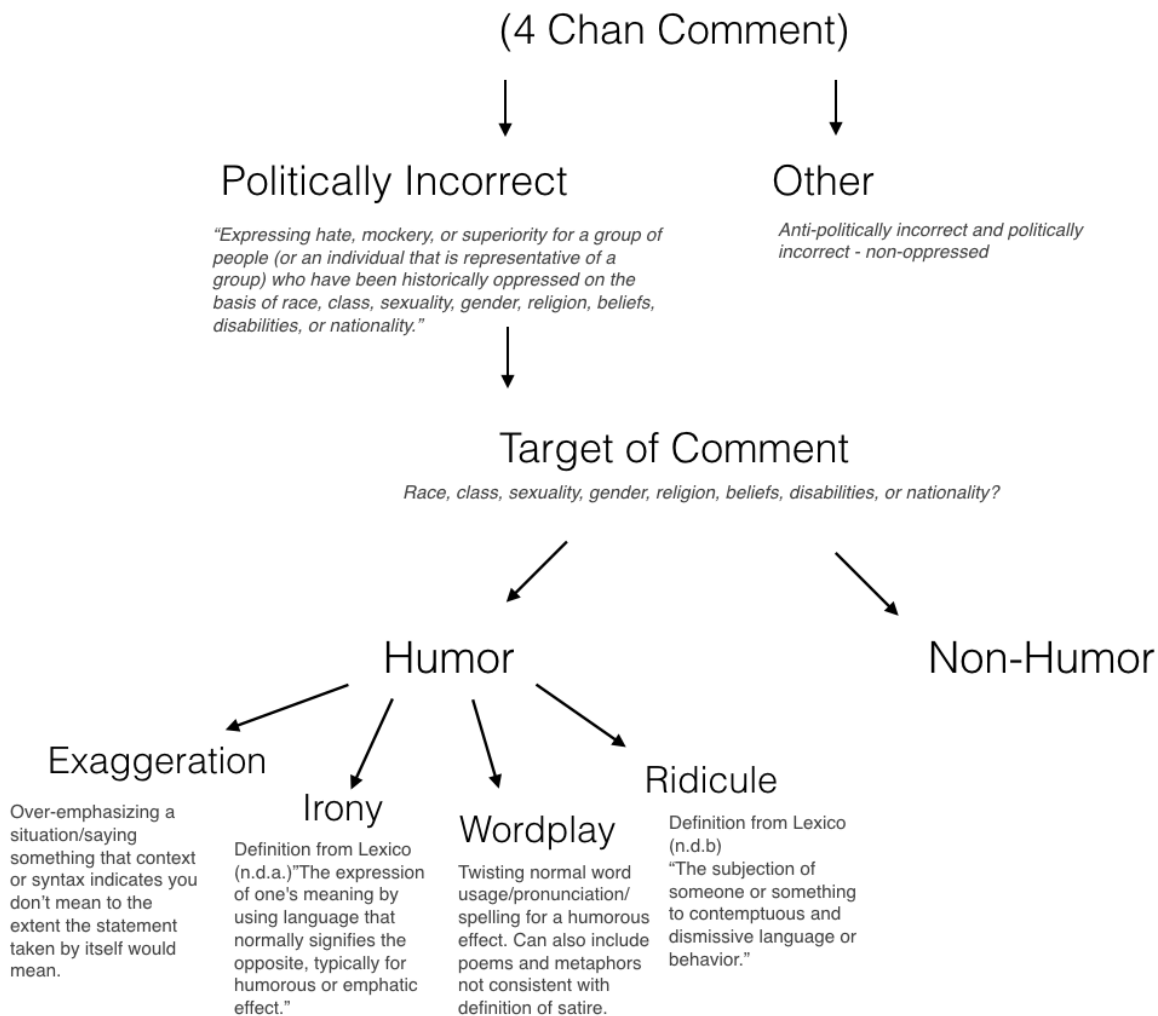
(4 Chan Comment)

Politically Incorrect

"Expressing hate, mockery, or superiority for a group of people (or an individual that is representative of a group) who have been historically oppressed on the basis of race, class, sexuality, gender, religion, beliefs, disabilities, or nationality."

Other

Anti-politically incorrect and politically incorrect - non-oppressed

Target of Comment

Race, class, sexuality, gender, religion, beliefs, disabilities, or nationality?

Humor

Non-Humor

Exaggeration

Over-emphasizing a situation/saying something that context or syntax indicates you don't mean to the extent the statement taken by itself would mean.

Irony

Definition from Lexico (n.d.a.)"The expression of one's meaning by using language that normally signifies the opposite, typically for humorous or emphatic effect."

Wordplay

Twisting normal word usage/pronunciation/ spelling for a humorous effect. Can also include poems and metaphors not consistent with definition of satire.

Ridicule

Definition from Lexico (n.d.b) "The subjection of someone or something to contemptuous and dismissive language or behavior."

Figure 6: Overview of Coding for Qualitative Text Analysis.

After coding all applicable comments for 2014 and 2018, I was able to create groups of codes such as "All Race" which are all comments about race, regardless of type of humor, and "All Irony" which are all ironic comments, regardless of topic. I used ATLAS.ti to create graphs for both years of the most prevalent topics, the most prevalent humor types, and the most prevalent humor types for each individual topic.

3. Image Analysis

Using R to pull images from archived 4chan data, I ended up with 3,287,740 images from 2014

and approximately 3,931,657 images from 2018. I obtained a random sample of 325 images for

both 2014 and 2018. After initially viewing some, I decided to initially sort them into three

groups: politically-incorrect images, non-politically-incorrect images, or unknown. Unlike with

the qualitative text analysis, I coded all images regardless of whether they were politically

incorrect or not. This was in an attempt to compare non-politically-incorrect humorous images

with politically-incorrect ones. I used the same definitions as I did for the qualitative text

analysis to determine if an image displayed politically incorrectness. From there I further sorted

the images in the former two groups into eight categories: memes, reactions, news, gif,

drawings, real photos/non humor, and other. I also had an unknown category for images that I

could not determine the correct category for.

Name	Definition	Example
Memes	A humorous usage of a picture in conjunction with text that is easily able to be repurposed.	
Reactions	Faces used for a humorous effect, likely as a reaction.	
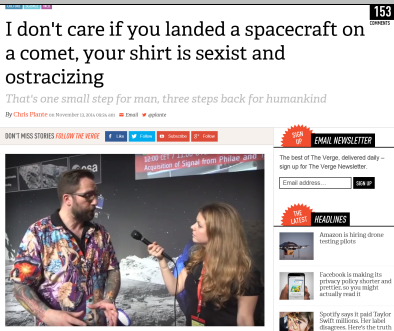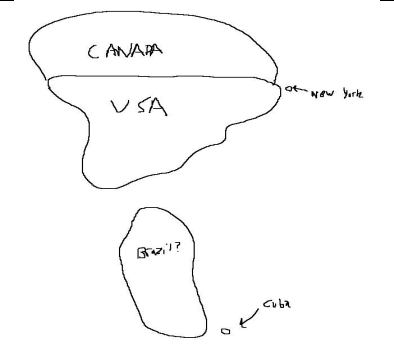
Name	Definition	Example
News	News article or graph/chart from a news article.	
Gif	Animated images	N/A
Drawings	Drawings, or images purposefully photoshopped to appear as a drawing.	
Real Photos/Non-humor	Photos of anything in the real world that do not fit into other categories. These are all non-humorous photos.	
Other	Anything not fitting with existing categories	

Table 4: Definition of Image Types and Examples

(4 Chan Image)

Unknown   Politically Incorrect   Non-Politically Incorrect

"Expressing hate, mockery, or superiority for a group of people (or an individual that is representative of a group) who have been historically oppressed on the basis of race, class, sexuality, gender, religion, beliefs, disabilities, or nationality."

Not fitting with the right-wing extremist definition

Meme, reaction, news, gif, drawing, real photos/non-humor, other

Figure 7: Overview of Coding for Images.

Limitations

While other projects have used 4chan comments from /pol/ as data (Thompson 2018; Ludemann 2018), this is the first study, according to my knowledge, that is attempting to go beyond researching the prevalence of certain words and ideas. This paper combined qualitative and quantitative analysis by categorizing themes using the archived data. The lack of precedents inevitably led to some limitations. One of the main limitations was coding. Some comments were brief and ambiguous, with meanings hard to decipher. Through strict and precise definitions, as well as the options of an "unknown" or "other" category, I attempted to alleviate these problems. Nevertheless, there were still issues with identifying how to code some items. For example, text comments directed towards "a Jew" may have involved an attack on a nationality/ethnicity or a religion or both. Based on the context of many of these comments, I decided to code attacks against Jews in the nationality/ethnicity category unless it was clear the attack was meant against religion.

Some comments had little to no context, but still included rhetoric that indicated it may be a politically-incorrect comment. For example, one comment said, "Libertarian Nationalist Master Race. But thanks for losing." The idea of a "master race" is a politically incorrect comment, however, without context there is no way of knowing whether this statement is proposing a "libertarian nationalist master race", denouncing it, explaining it, etc. For these comments I simply made a decision based on the limited context and did not code them as politically incorrect if this meaning was not discernable.

Vocabulary was another limitation. Many users on 4chan speak with slang that at first is very difficult for individuals unaccustomed to 4chan, like myself before this project, to understand. I used www.urbandictionary.com, a dictionary that relies on crowdsourcing, to look up unfamiliar words (Urban Dictionary n.d.). Most words I was able to discover the meaning of. "SJW," for example, stands for "social justice warrior," and "Kek" is just a replacement for "lol" (laugh out loud), derived from a video game. There were a few words, however, that I was still unable to determine the meaning of. Slang terms also likely impacted the LDA topic models, as some words may not have been recognizable.

A final limitation is sample size. There are millions of archived 4chan comments and images available for the years 2014-2018. Ideally, I would have liked to have coded a much larger sample of texts and images and to have been able to do all years as opposed to only the first and last year's available. Unfortunately, my ability to do this was hindered by computing issues.

Results

This study sought to investigate how users on the /pol/ forum (many espousing views consistent with right-wing extremism) are using 4chan to attack certain individuals and groups, what role humor plays in these online attacks, and if and how this humor usage and rhetoric may have changed over time. It is my hope that by understanding the humor usage and rhetoric of individuals on the /pol/ forum, it will be easier to counter ideas propagated by right-wing extremists.

In this section I will discuss the results of the three methods I used: LDA topic modeling, qualitative text analysis, and image analysis. LDA topic modeling results will provide an overview of rhetoric and display the lack of change over time in this rhetoric. Qualitative text analysis and image analysis will display the types of attacks used on 4chan, who these attacks are targeting, and how humor is tied into these attacks. This section will be followed by a discussion linking the methods into a clear picture of the 4chan /pol/ community.

LDA Topic Analysis

LDA Topic Analysis yielded the least results. Ideally, after running a topic model the topics should be easy to assign a title by those familiar with the words and subject material. For example, if words comprising one topic are "bark, wag, walk, and puppy," and words comprising another topic are "meow, kitten, agile, and tabby," easy assumed titles would likely be "dog" and "cat". After running multiple topic models of various sizes, it became clear that creating a title for the different topic models would be difficult. This is likely partially due to the

model's inability to decipher poor grammar, its inability to recognize colloquial or vulgar words used on 4chan, and its inability to separate comments from less useful text, such as url links or strings of numbers that denote users. As a result of this, the results are clouded by curse words that muddy the ability to assign topic titles. This made identifying over-arching topic changes over time difficult. Take figure 8 (below) for example. Topic 2 includes more words idealized by those in the 4chan community, while Topic 1 contains more words that are ridiculed by individuals in the 4chan community. However, this is not true for all included words, and is instead a loose and muddied association.
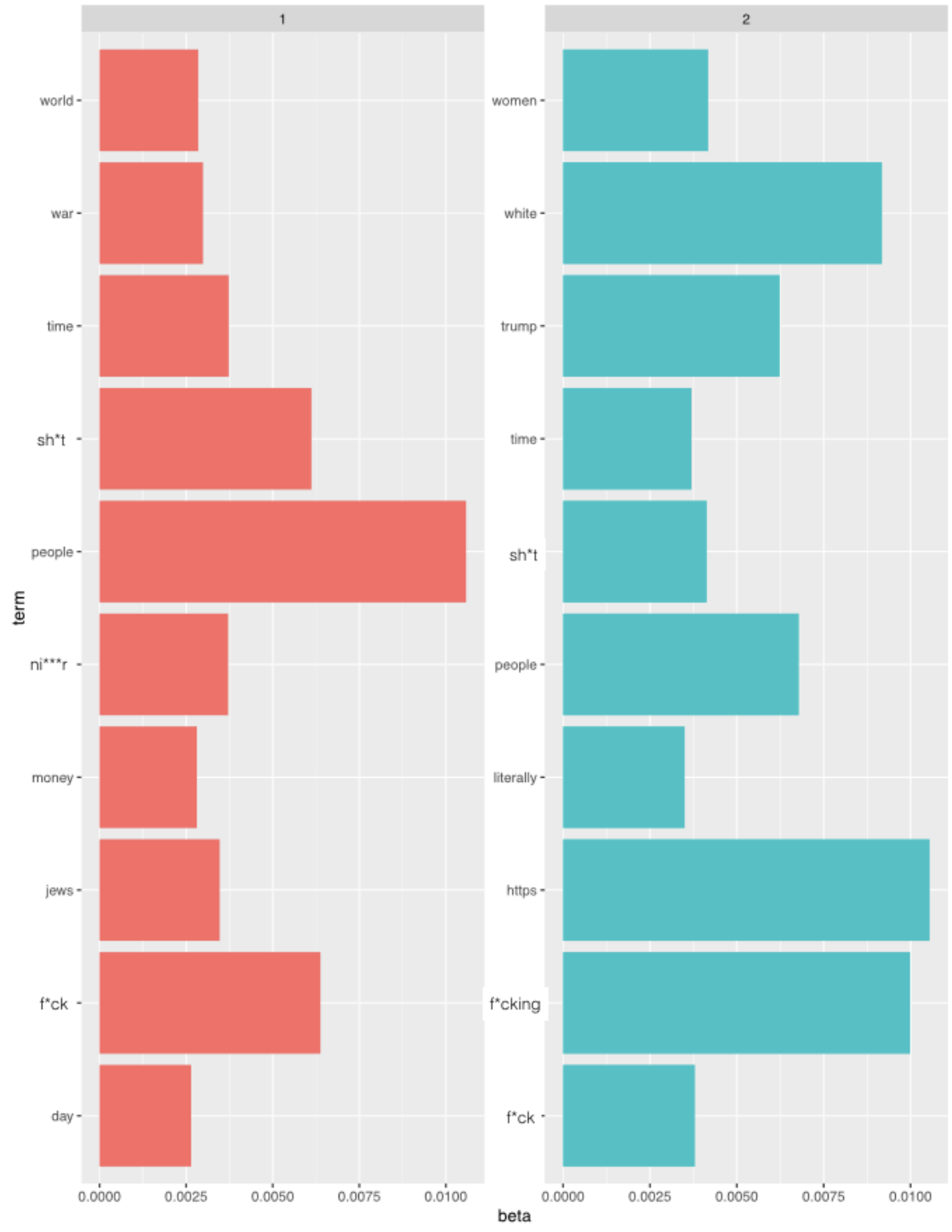
Figure 8: 2-word/10-topic model from 2018. Assigning a different title to the two topics was

difficult.

Despite the inability to assign clear titles to the topics, I did attempt to assign topics to the 7

topics 25 word models in the hopes that more topics and words would create narrower topics.

The topics I assigned to the models were similar throughout the years analyzed. Figure 7 is the

topic model for 2014, the first year analyzed, and figure 8 is the topic model for 2018, the last

year analyzed. Both show the proposed topic titles highlighted in orange.

Although creating meanings from topics was difficult, the models yielded some results simply

by showing common words. The words demonstrated the commonality of vulgar language and

the discussion of people belonging to different groups. The same exact words were not picked

up by the topic model for every year, this is likely due to having only a 1% sample. The pattern

of rhetoric and clusters of topics, however, are similar throughout the years. The rhetoric is

similar to what would be expected of right-wing extremists. These patterns persisted between

the years 2014 and 2018, demonstrating that if /pol/ was taken over by right-wing extremists,

this transition likely happened before 2014. This is consistent with researchers who claim that a

shift in /pol/ discussion towards right-wing extremism began in 2012 (Reitman 2018).

Using topic modeling enabled an interesting comparison to my other methods. Although topic

modeling was able to cover more years and more data than my other two methods, topic

modeling failed to pick up on nuanced humor. This demonstrates a need to either not rely on

artificial intelligence or machine learning when conducting humor research, or to put more

resources into teaching machines to pick up on humor.

Figure 9: 7-topic/25-word model from 2014 with proposed topic titles highlighted in orange.
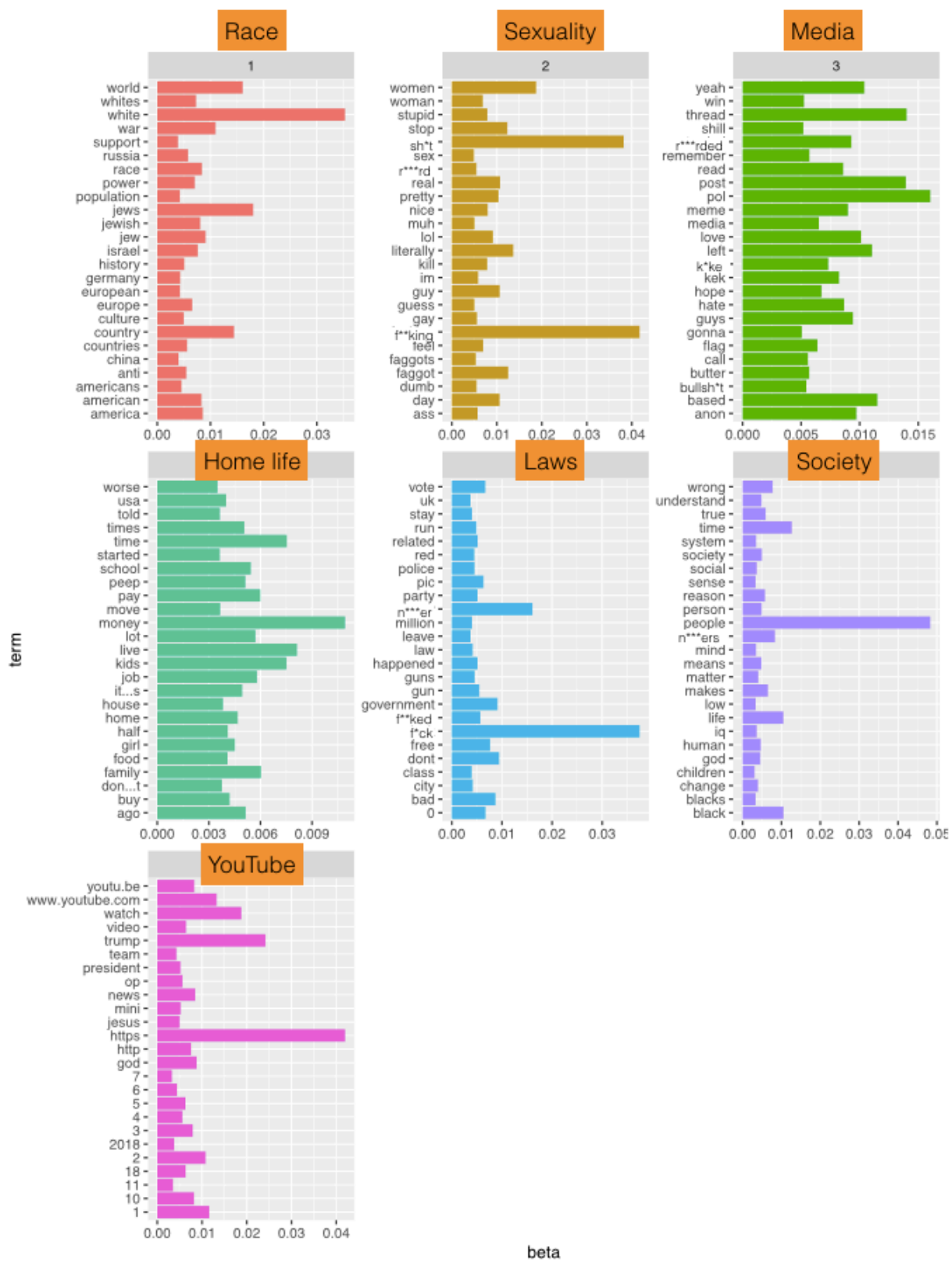
Figure 10: 7-topic/25-word model from 2018 with proposed topic titles highlighted in orange.

Qualitative Text Analysis

Categories

Regarding the 8 categories (beliefs, class, disabilities, gender, nationality/ethnicity, race, religion, and sexuality), the percentage of politically-incorrect comments referring to those categories was fairly consistent between 2014 and 2018. Race was the most common category with 64 total comments from both years (38% of coded comments from 2014 and 39% from 2018). Nationality/ethnicity was the next highest category for both years, with 36 comments total, 17% from 2014 and 25% from 2018. With only two data points, it is difficult to evaluate a true distributive change over time. However, it is possible to see what is different between 2014 and 2018, and to speculate as to what social or political changes may have led to those differences. The biggest differences in topics between 2014 and 2018 were beliefs, nationality/ethnicity, and religion. 2014 had more comments than 2018 about beliefs by 6 percentage points, and more religious comments by 7 percentage points. 2018 had more comments than 2014 about nationality/ethnicity by 8 percentage points.
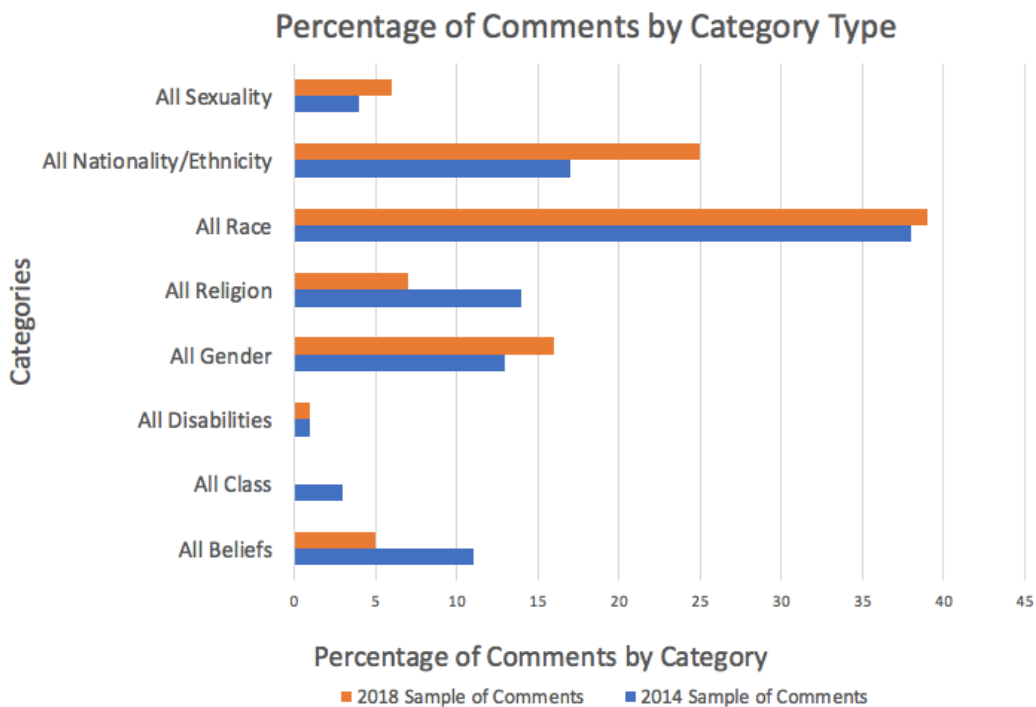
Figure 11: Percent Categories for 2014 and 2018.

Race

Within each category, there was often a main group that was attacked. For race, this was black

individuals. Often commenters attacked a perceived intelligence gap between races. The

comment below is from 2014.[4]

> \ *No, because they're just acting. They are still n****rs….nothing more than house n****rs at this point in time. \\ The so called \"exceptional n****rs\" like Obama and coon related still have typical n***er urges to chimp out and rape white women.*

This comment displays the racist attitudes of many on 4chan through word usage and the

implication that certain groups of people are sub-human or animalistic. The comment uses

several racist tropes, one especially prominent during the slavery period in the United States,

---

[4] I have placed asterisks to block offensive words. None of the original comments were censored.

that implies that white women are in danger as a result of black men. Comments targeting

President Obama were common, especially in the 2014 comments. President Obama, as both a

political liberal and an African-American, represents to many 4chan commenters the antithesis

of what they advocate for. President Trump, on the other hand, is seen by many commenters as

an ally. Surprisingly, however, there were also many comments denouncing President Trump

and asserting that he is failing to act and not keeping campaign promises (these comments do

not use offensive language, however, unlike the comments attacking President Obama). The

comment below from 2018, not coded as an extremist comment, shows these differing views:[5]

> Trump still doesn't have a permanent AG in charge of the DOJ to run the show\He doesn't need one. The DOJ has no power that Trump himself doesn't have. Trump is the executive branch.\>Sessions was recused. \Trump's responsibility.\>Rosenstein still has his fingers in everything\Also Trump's responsibility.\>going to be challenged in the courts.\ F**k the courts, Trump can ignore them if he wants to. Instead he keeps trying to act like a normal do-nothing president. Why?

This comment displays the faith many 4chan users have in President Trump's ability to harness

power, but their confusion and frustration that he is, in their eyes, a "normal do-nothing

president."

Nationality/Ethnicity

The second most prominent category, nationality/ethnicity, overwhelming targets individuals of

Jewish descent as well as individuals from European countries (especially Germany, Ukraine,

and France). Unlike comments coded in the race category, which often were more detailed,

seemingly personal, and focused exclusively on race, the comments in the nationality and

---

[5] Carets (>) used within 4chan comments indicate that the following sentences are taken from another commenter, often copy and posted, so the current commenter can respond.

ethnicity category often were shorter and used the attacked nationality/ethnicity as an insult against another individual.

You sound like a Jew. Just like Marx.

The above comment from 2018 demonstrates this type of insult. The focus of the attack is not directly Jewish people, but the individual addressed as "you." "Jew" is used as an insult, but not directly the target.

Gender

Comments in the gender category centered around the perceived weakness and manipulative tendencies of women. Violence against women is often encouraged, and women are insulted on the basis of their appearance.

because after you beat the s**t out of her and lock her up for a week, she will know how things are meant to be

This comment from 2018 advocates for domestic abuse while also implying that the way "things are meant to be" is male-dominated. Women are rarely directly addressed in the comments, perhaps implying that 4chan commenters assume other commenters are male. Comments, instead of addressing women directly, attack women by telling men how to treat women poorly.

Women's rights are opposed by many commenters (this was true in both years, but especially prominent in 2014), as displayed in the comments below.

Reminder this only happens in the white west where females are given liberation and rights.\ \ Africa, China, Afganistan etc...it doesnt happen because they arent worshipped.

its doubly strange considering the women are only at the work place because of affirmative action style policies, and then they are catered to as if they are valued employees rather than drains

I think I'd like to see segregated schools, not for race because classes should be segregated by how well they are doing (what they are currently doing in Canada or atleast Quebec is a few smart kids, lots of average, a few jokers, a few slow and a few drop outs so that there is no infamous group of students that the incompetent baby sitters can't handle.), but segregated by sex so that men are not hampered by the women-centered curriculum currently present in public schools at the t moment

All of the above comments show disdain for women entering the public sphere with equal rights, whether that be a school, workplace, or even a country. The comments imply that men would be better off without rights for women, as men, it is implied, are inherently superior and dragged down by women placed in equal positions. Interestingly, there appears to be less vile language used in the gender category. One possible reason could be that male commenters insulting women believe their superiority to be so established that they do not need to bolster their claims and attacks with offensive language.

Religion

Among all the 4chan comments, comments discussing religion stuck out the most to me. Unlike other topics, comments centered around religious discussion seemed more likely to form a coherent argument attempting to present facts to back up their points (although many of these "facts" were incorrect or imagined, the structure of the comments is what is notable).

>Atheists and Episcopalians regularly meet or exceed these same IQ levels\ >Didn't know atheism and episcopalianism were genetic.\ \ I said *white* Atheists and Episcopalians. White as in European-derived people. These are mostly not made up of genetic sub-groups or strains, though Episcopalians are to some degree, but these people are part of the mix which leads to the total. The degree to which they are self-sorted isn't important in the big picture.\ \ As another poster already explained, Jews worldwide do not exceed Europeans in IQ, even with the Euro-Semitic hybrid Ashkenazim bringing up the Jewish average due to a series of pressures in the last 1500 or so years which selected for high intelligence quotient.

The above comment is a discussion about IQ levels as they relate to religion. This is an example of "facts" being used in a discussion pertaining to religion. The commenter in this post referenced other posters ("as another poster already explained"), and defended their points from historical perspectives ("due to a series of pressures in the last 1500 or so years"). Note how most of the information in this comment is not given a source, and information given a source, "another poster," would be nearly impossible to trace.

Within the religious alt-right category, Islam and Judaism were most attacked and talked about in a derogatory language. Christianity was advocated for in some comments, while dismissed in others. The language, however, in the dismissive comments was much less derogatory.

> Do not be fooled, the catholic church isn't pious anymore, the pope is anti-christian. You should become Lutheran like me, remember: Martin Luther hated jews.

> >Indeed God will enact righteous justice on this earth.\ \ ANY DAY NOW!! UNTIL THEN.. KEEP YOUR HEAD DOWN AND AND LET THE JEWS STOMP YOU FURTHER INTO THE DIRT..\ \ ANY\ DAY\ NOW

> If you burned bibles and torahs, you won't piss off the mudslimes as much as if you singled out the Quran \ \ I'd watch your channel OP[6]... just think of the glorious comments

---

[6] "OP" stands for "original poster," denoting the individual who began the thread.

Similar to the nationality/ethnicity category, "Jews" is often used as an insult. In comments in the religion category, Christianity is more often directly pitted against Judaism than any other religion. Islam, on the other hand, is most often attacked with more creative derogatory language, and Islam is framed as being more extremist than other religions.

Beliefs

Most comments in the beliefs category focus on attacking feminism as well as "social justice warriors" (abbreviated as SJW).

> *Children will still buy it, get brainwashed, and further generation will be even more SJW than current, they're playing the long game yet again. They won.*

The comment above from 2018 shows the fear evidenced in many of the comments that a certain belief is corrupting and will take over future generations. This fear is a possible motivator for right-wing extremist groups. Comments in the beliefs category showed a lack of understanding or interest in understanding social justice movements. Exaggeration of the goals and beliefs of these movements is common.

Sexuality

Similar to the way "Jew" is used as an insult in the religion category, "gay" and "f****t" are used as insults in comments centered around sexuality.

> *>Literal hourglass figure\ >Do people like that?\ Are you gay?*

In the comment above, the most recent author attacks what was likely a previous comment by insinuating that not liking a "literal hourglass figure" means an individual is gay. This narrow view defines gender norms as women with precise body measurements and men who desire that.

> Kek[7], I know you're a pedophile. You art f*****s are always pedophiles. Stop self projecting, gaybian pedophile.

This comment displays the use of "gay" as an insult. The comment puts being gay into the same category as being a pedophile, insinuating that being gay is unnatural and disturbing. At the same time, the comment is coming from a superior viewpoint. "I know" and the directive to "stop" implies that the commenter views themselves as above the intended reader.

Disabilities

Disabilities was one of the smaller categories, but it was clear from all the comments taken together that disabilities and mental and physical illness were used as insults to ridicule someone. Groups with disabilities were not directly attacked by the commenter as a group, but instead disabilities and mental and physical illnesses were used as an insult. This is displayed in the comment below from 2014.

> You're all r****ded \ Holocaust was exaggerated, highly\ \ the end, go back to being autistic on other subjects\ \ /thread

Class

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[7] "kek" is a substitute for "lol" (laugh out loud) originating from a videogame.

Politically-incorrect comments directly attacking a class of people were rare. There were only two comments coded for class, one making fun of "hillbilly's" and the other making fun of the intelligence of people who went to private schools. There was discussion of classes of people and wealth inequalities, but most of these were targeted at different groups, such as race or nationality/ethnicity, and were thus coded with their main category. Class was often used only as a secondary insult. A possible reason for the lack of comments attacking people or groups based on class could be the insecurity of the individual sitting behind the computer about their own class.

Other Categories

There were two other categories also coded for. These were "politically incorrect – non-oppressed" (used to denote hate, mockery, or superiority against a group or individuals who have not been historically oppressed) and "anti-politically incorrect" (comments that explicitly express disdain or disbelief in politically-incorrect beliefs). Between 2014 and 2018, there were two comments for each of these categories. One comments from 2014, categorized as anti-politically incorrect reads:

> *How can you dismiss an entire race as inferior? I guarantee you that you haven't met a significant amount of blacks compared to the significant amount of blacks in the world. You don't get to make that call.*

The rarity of comments such as the one above demonstrate that although discussions and arguments are frequent on 4chan, there is not a lot of push-back to bigoted, racist, and violent language on /pol/. The user calling out others for racist comments is in the minority on /pol/. If others feel the same way, they are not expressing it.

In addition to there being a lack of comments clearly speaking out against politically-incorrect language, there is a lack of comments expressing forms of political incorrectness not associated with right-wing extremism. There was only one Islamic extremist comment, categorized under politically incorrect - non-oppressed, in 2018:

Let\ God\ Burn\ These\ Infidels\ Quickly

Furthermore, as there is a lack of context, it is possible this comment was intended mockingly.

There was also only one comment expressing disdain for white individuals. This comment was also coded as politically incorrect non-oppressed and was from 2014.

good, white gene are weak anyway

This rhetoric of "weak" versus "strong" is commonly seen in other comments attacking groups. Commenters have an idealized view of what qualities an individual should embody (these qualities differ by gender, where males are more commonly talked about in terms of "weak" versus "strong"). Often this idealized view is displayed through the ridicule of others who commenters feel do not embody these ideals.

Humor Types for Qualitative Text Analysis

The percentage of different types of humor was fairly consistent between 2014 and 2018. Ridicule was the most common humor type, with 33% of comments from 2014 displaying ridicule and 38% of comments from 2018 displaying it. Non-humor was the next largest

category, followed by exaggeration, wordplay, and then irony. The biggest different between humor types was in the non-humor category, with comments from 2014 being 7 percent more likely to be non-humorous. This upholds my hypothesis that comments from 2018 would be more likely to be humorous.

Types of Humor Usage per Year

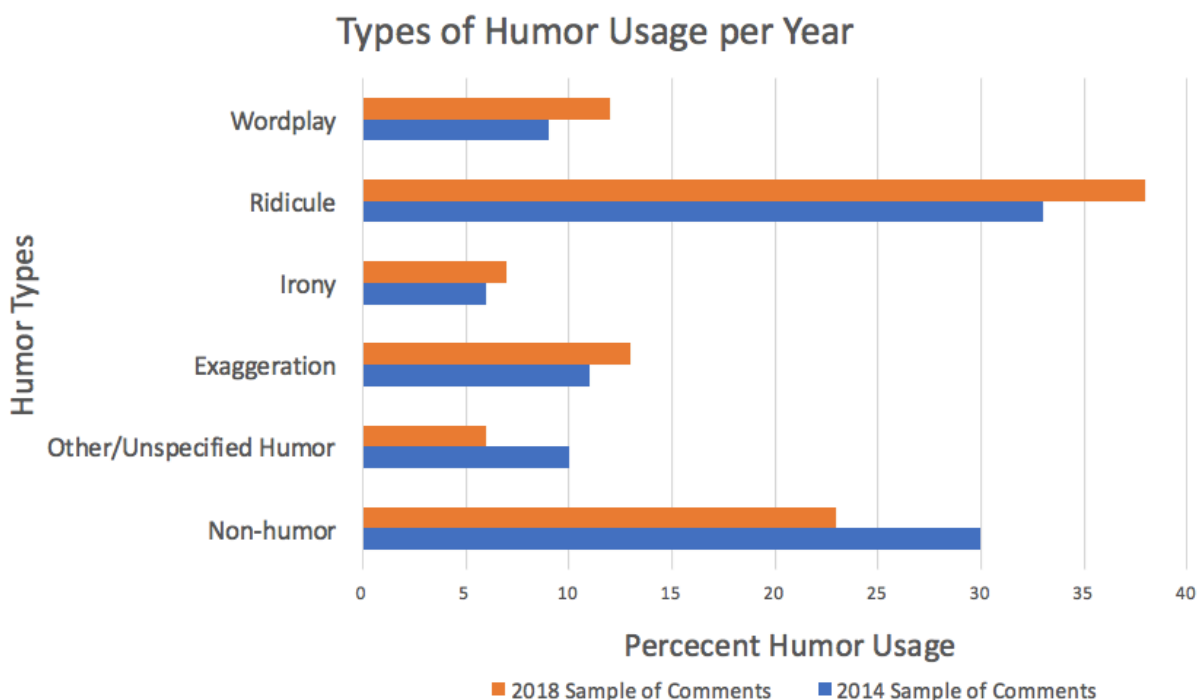*Figure 12: Types of Humor Usage per Year among all Categories.*

Combined Humor and Categories

Categories were likely to be talked about with humor on average 75% of the time. All categories were fairly close to this average, with sexuality being the most likely to be talked about with humor at 88% of the time, and gender being the least likely to be talked about with humor at 67% of the time.

I combined 2014 and 2018 data and created a table showing the percentage of different types of humor out all of humorous comments. I left out class, disability, and sexuality due to the low number of comments coded for these categories.

Breakdown of Humor Type Usage by Category

	Gender	Race	Beliefs	Religion	Nationality /Ethnicity	Average
Irony	6.00%	8.00%	20.00%	17.00%	12.00%	13.00%
Ridicule	31.00%	54.00%	40.00%	50.00%	52.00%	45.00%
Exaggeration	25.00%	18.00%	20.00%	8.00%	20.00%	18.00%
Wordplay	25.00%	14.00%	20.00%	17.00%	8.00%	17.00%
Other	13.00%	6.00%	0.00%	8.00%	8.00%	7.00%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Table 5: Combined 2014 and 2018 data showing percent humor usage by topic.

Table 6 is the same table but it shows the deviation from the average ("DA") for each cell. This helps to visualize which categories are discussed with humor most different from other categories. Most categories have percentages close to the average. There are, however, some notable exceptions.

	Gender	DA Gender	Race	DA Race	Beliefs	DA Beliefs	Religion	DA Religion	Nationality/ Ethnicity	DA Nationality/ Ethnicity
Irony	6%	-7%	8%	-5%	20%	7%	17%	4%	12%	-1%
Ridicule	31%	-14%	54%	9%	40%	-5%	50%	5%	52%	7%
Exaggeration	25%	7%	18%	0%	20%	2%	8%	-10%	20%	2%
Wordplay	25%	8%	14%	-3%	20%	3%	17%	0%	8%	-9%
Other	13%	6%	6%	-1%	0%	-7%	8%	1%	8%	1%

Table 6: Breakdown of humor type usage by category with deviation from average ("DA") displayed. The darker red cells are those farther from the average.

The category discussed most differently is gender. Gender is still more likely to be talked about with ridicule more often than other humor types, but it is 14% less likely to be talked about with ridicule than the average humorous topic. Additionally, humorous statements pertaining to gender are more likely to use exaggeration and wordplay (7% and 8% more likely, respectively), and 7% less likely to use irony. Figure 13 displays the the percentage of humor usage per topic. One potential reason comments in the gender category may display a unique pattern of humor could be the tension between the hate commenters express against women and the desire commenters have to have a wife/girlfriend.
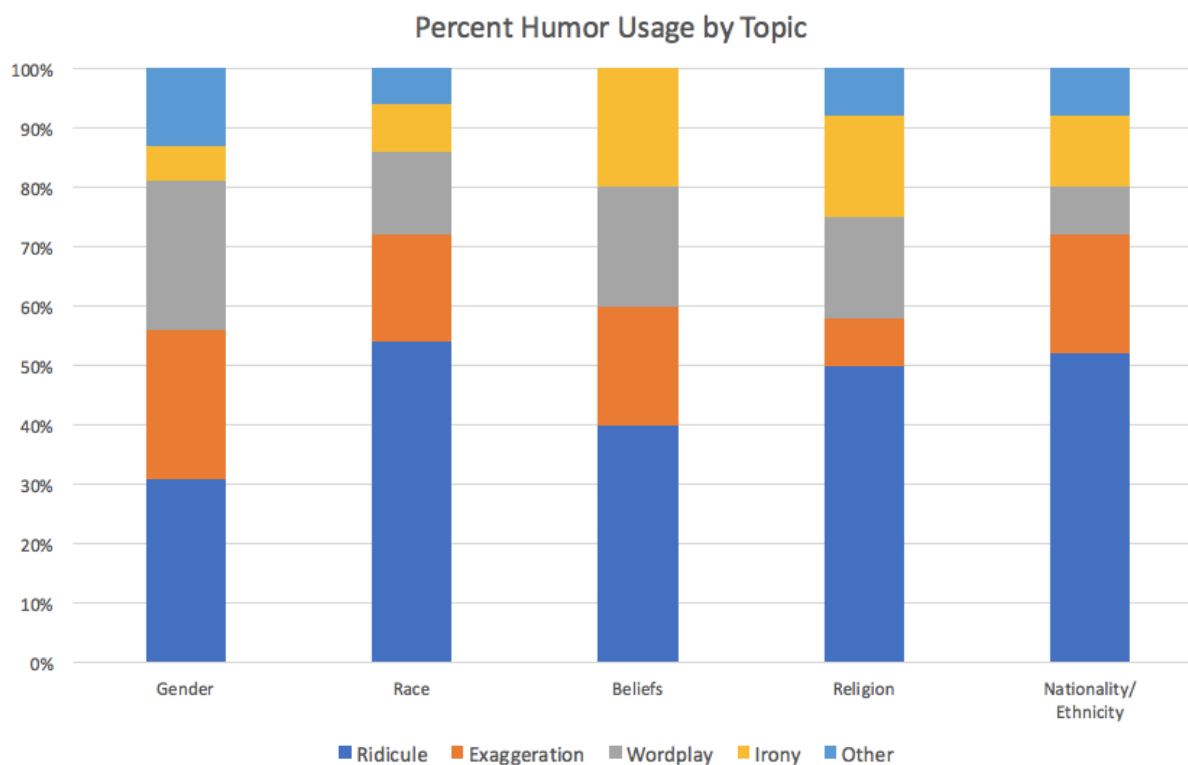

Figure 13: Trend of the Percent Humor Usage by Topic.

Image Analysis

The number of images coded into each category was fairly consistent between 2014 and 2018.

Around 20% of images showed political incorrectness, and 71% of images were non-politically

incorrect. All other images were labeled as "unknown." Unknown images were often symbols

whose meaning I could not decipher, unclear cartoons or drawings, or images including text in

other languages.

Memes were the most common category for politically-incorrect images, with 37% and 39% of

politically-incorrect images for 2014 and 2018 being recognizable as a meme, respectively.

Regarding the non-politically incorrect category, only 8% for 2014 and 6% for 2018 were

memes. Politically-incorrect memes were slightly more common than other memes on /pol/,

even though politically-incorrect images were far less common than other images.

Proportional Area Chart of Image Types
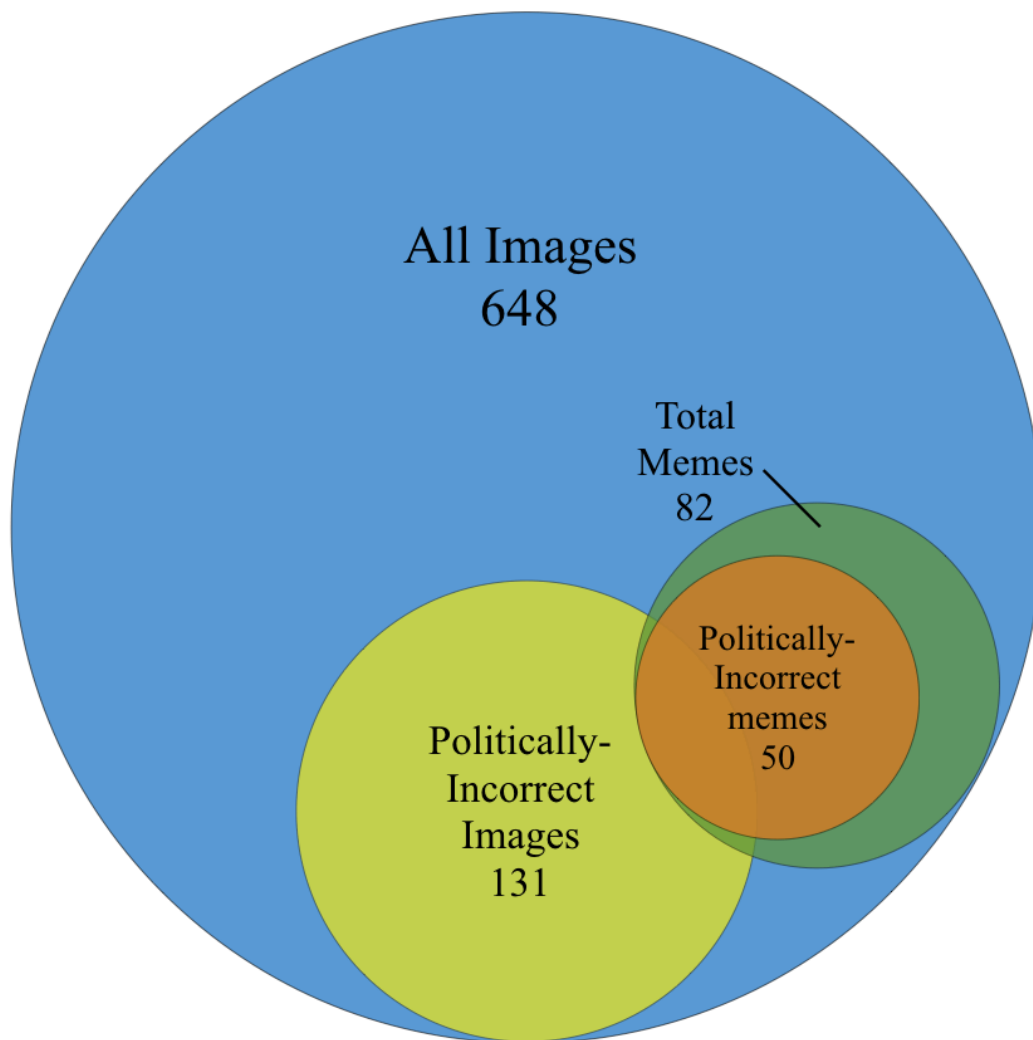
Figure 14: Proportional area chart showing types of images. Note how large the politically-incorrect memes circle is compared to the politically-incorrect images and total memes circles.

Drawing/Cartoon was the next highest category for politically-incorrect images. 29% of politically-incorrect images from 2014 were in the drawing/cartoon category, and 24% from 2018 were in this category. This somewhat higher than the non-politically incorrect category,

where 13% of photos were in the drawing/cartoon category for 2014 and 16% were a

drawing/cartoon for 2018.

2014				2018			
	Category	#	%		Category	#	%
Politically Incorrect	Drawing/Cartoon	21	6.48%	**Politically Incorrect**	Drawing/Cartoon	14	4.32%
	Gif	4	1.23%		Gif	3	0.93%
	Meme	27	8.33%		Meme	23	7.10%
	News/Social Media	8	2.47%		News/Social Media	12	3.70%
	Other	6	1.85%		Other	3	0.93%
	Reaction	3	0.93%		Reaction	0	0.00%
	Real Photos/Non Humor	3	0.93%		Real Photos/Non Humor	4	1.23%
	Total Politically Incorrect	72	22.22%		Total Politically Incorrect	59	18.21%
Non-Politically Incorrect	Drawing/Cartoon	29	8.95%	**Non-Politically Incorrect**	Drawing/Cartoon	38	11.73%
	Gif	16	4.94%		Gif	6	1.85%
	Meme	19	5.86%		Meme	13	4.01%
	News/Social Media	19	5.86%		News/Social Media	44	13.58%
	Other	20	6.17%		Other	8	2.47%
	Reaction	36	11.11%		Reaction	22	6.79%
	Real Photos/Non Humor	89	27.47%		Real Photos/Non Humor	100	30.86%
	Total Non-Politically Incorrect	228	70.37%		Total Non-Politically Incorrect	231	71.30%
	Unknown	24	7.41%		Unknown	34	10.49%
	Grand Total	324	100.00%		Grand Total	324	100.00%

Table 7: Numbers and percentages of images coded into categories per year.

Common Attack Strategies

Generally, there were two types of politically-incorrect coded images. There were those

intended for humorous purposes, usually memes, drawings, and cartoons, and there were

those seemingly intended to be "informational." These were often news articles, charts/graphs,

or screenshots of social media postings. Different groups of people were talked about in

different ways. Overwhelmingly, the groups talked about the most in the politically-incorrect

category were Black and Jewish individuals.

In 2014, President Obama was often the target of racist memes and photos. In 2018, racist

images persisted, but the target shifted away from President Obama to a more general

population. Accompanying this shift seemed to be more efforts to include "informational"

attacks backed up by so-called evidence. Where 2014 attacks had focused on stereotypical

memes intended for a humorous effect, 2018 attacks focused on highlighting news articles,

philosophical discussions, and old documents.

Figure 15: 2018 image likely designed to educate audiences on basis for differing rights by race.

In both 2014 and 2018, attacks on individuals of Jewish descent were common, especially in

memes. Also common, especially in 2014, were images praising or exalting Adolf Hitler. The

purpose of these attacks did not seem to be information, but instead humor.

Figure 16: Anti-Jewish Meme from 2014.
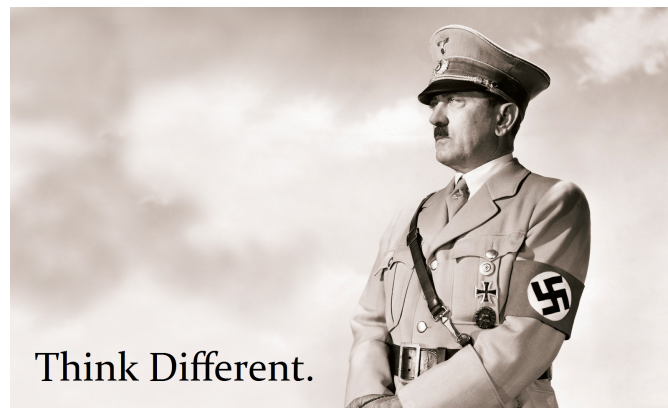
Figure 17: 2014 Meme exalting Hitler.

Memes are intended to be repurposed, therefore, it came as no surprise to see the same image slightly altered or with different text. Two of the most common memes for both years were Pepe the Frog and The Happy Merchant.[8]

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[8] The Happy Merchant is recognized by the ADL as a hate symbol. It features a stereotyped Jewish man with exaggerated features rubbing his hands together greedily. The meme originated from late 20th century cartoons drawn by Nick Bougas, many of which were anti-Semitic and appeared in white supremacy newsletters (ADL n.d.b).

Figure 18: The Happy Merchant meme from 2014.

Figure 19: Pepe the Frog meme from 2018. In this image, Pepe the Frog is also using the "okay"

hand gesture, a symbol that was repurposed as a white supremacy symbol in 2017 as a result of

a 4chan hoax.

Interestingly, while The Happy Merchant meme clearly has a racist meaning, Pepe the Frog was

not considered a hate symbol until 2016 when it was overwhelmingly taken over by white

supremacists on 4chan (ADL n.d.b.). While The Happy Merchant was almost always

accompanied by text, Pepe the Frog images were often stand-alone, especially in 2018,

breaking the traditional meme format combining text and image. This indicates an awareness

of the power 4chan users have, that an anonymous community could transform a frog cartoon into a white supremacy symbol. The lack of a traditional meme format seems to be a subtle brag that the intention of this unassuming image is understood despite the lack of words.

Discussion

Social Movements

While some comments and images assert a positon of power over other groups, other comments and images demonstrate a fear of those groups taking over. My analysis confirmed both observations by Cunningham (2018) about the rise of social movements. When /pol/ users feel threatened by groups they consider "other," they post more images and memes displaying this fear and attacking the "other" groups. This can be seen in the racial attacks levied at President Obama when he was in office. When there is a perceived political opportunity, there are also posts and images reveling in this and asserting dominance. According to Cunningham (2018) and Greene (2019), when President Trump took office there was an increase in far-right extremist attacks, indicating that these groups were likely emboldened.

In this study, there was no direct evidence on the 4chan /pol/ forum of recruiting or planning and organizing far-right extremist attacks. A potential reason for this could be the strong value 4chan users place on the anonymous community. Those choosing to reveal their identities are often vilified (Ludemann 2018). Therefore, planning by far-right extremist groups likely takes place on other platforms. The 4chan /pol/ forum is not a closed-off community and information easily leaks to non-anonymous platforms, as exemplified by the prevalence of hoaxes and

conspiracy theories that eventually make their way from 4chan to main stream media (ADL 2018; ADL n.d.a.; ADL n.d.b; Greene 2019).

Humor and Identity

The primary function of politically-incorrect comments on the 4chan /pol/ forum, based on my analysis, does not seem to be recruiting for extremist groups. Instead, it seems to be to create an in-group-mentality among users, who face little challenge to their extremist ideas. One way to strengthen an in-group mentality is through humor (Beasley 2019; Martin 2007). The desire of those on the 4chan /pol/ forum to take over symbols, such as Pepe the Frog, either as a collective prank or desire for power, demonstrates the importance of humor and identity to those on the /pol/ forum, and perhaps those also prescribing to the right-wing extremist community (ADL n.d.a.).

While it is easy to see how photos and comments on the /pol/ forum are used as a bonding mechanism, it was harder to decipher from this study if another reason for high humor usage might be as a coping mechanism for individuals who otherwise only think about hate. As demonstrated by Trnka (2011), who conducted an ethnographical account of humor usage following a coup in Fiji, humor is used to cope during times of fear and anger. The humor used on the /pol/ forum may be a coping mechanism for individuals who fear, and are angered by, the presence of those they see as "other". Unfortunately, as a result of the anonymity of the 4chan community, conducting interviews or ethnographical accounts aimed at deciphering the true intention behind humor usage is extremely difficult.

Future Research

Archived 4chan data is a unique dataset for sociologists to study as a result of the changed

behavior anonymity may encourage. Already there is increased interest in researching 4chan.

Early in 2020, after the analysis of this paper was conducted, Papasavva et. al, (2020) released a

dataset of /pol/ posts (excluding posted images) spanning from June 2016-November 2019,

paving the way for future analysis. It is important to continue to study politically-incorrect

rhetoric on online communities where right-wing extremists may exist, as terrorist attacks

committed by these groups are prevalent and underreported (Kearns et al. 2019). Unique

changes in behavior, such as humor usage, is vital to a complete understating of how extremist

individuals and groups think. Eventually I hope that continued study of these groups and their

"headspace," as one known white-supremacist calls it, will help others counter

communications, thought patterns, and actions of right-wing extremists (Greene 2019).

Additionally, studies like this which engage with multiple methods are particularly important as

an increased reliance on artificial intelligence, such as topic modeling, often fails to adequately

capture humor.

Conclusion

4chan /pol/ forum, likely as a result of the anonymous nature of the community, fosters many

racist, violent, and bigoted right-wing ideas which are often expressed with varying types of

humor. This humor has been weaponized in the past to take over symbols and memes, and is

likely a bonding mechanism for those wishing to become part of an in-group on the /pol/

forum. Although arguments and discussions are common on 4chan, almost no comments

express explicit disdain for politically-incorrect terminology and right-wing ideology. There is, however, a difference in the way different extremist topics are discussed with humor.

Both images and text are used for intended humorous and politically-incorrect purposes on 4chan. There were only slight differences in humor types and topics between 2014 and 2018. There was a slight increase in politically-incorrect content with humor usage from 2014 to 2018. I expected a larger increase in humor usage and politically-incorrect content. However, journalistic evidence has indicated that the biggest change in politically-incorrect content and the weaponization of humor in the /pol/ forum occurred in 2012 (Reitman 2018). The lack of change in humor usage and politically-incorrect content since then could indicate a stabilized ideology, at least on 4chan, that has remained relatively consistent since 2014 even through differing political situations. If /pol/ users continue to behave the way they have in the past eight years, and as long as they continue to recognize the power they have to overtake mainstream symbols, the weaponization and usage of humor users to foster a right-wing in-group identity is here to stay. It is important to continue to understand outlets such as the 4chan /pol/ forum, where right-wing extremist ideology seems prevalent, in order to stop the infiltration of extremist humor, rhetoric, and hoaxes in mainstream media.

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