

# COVID-19 & Anti-Mask Movement: How Jingoism is Bringing the United States Down

Colin Kim<sup>1</sup> and Brian Oh<sup>#</sup>

<sup>1</sup>La Canada High School, La Canada, CA, USA

<sup>#</sup>Advisor

## ABSTRACT

The objective of this study was to provide insight into the anti-mask phenomenon that has been occurring throughout the world. Widely broadcasted through different forms of media, these anti-mask movements are a growing concern to the scientific community, as such exposure will only deter the progress towards ending the pandemic. In order to understand the psychological motivations behind the anti-mask sentiment, the present studies 29 videos, over 120 minutes of content covering anti-mask protests in Canada, Europe, and the United States. I also used East Asia as a control variable, as I reviewed 5 videos, around 35 minutes of footage to understand the psychology that makes East Asia more receptive towards mask use. By implementing a qualitative research design, I looked for key language themes (interviews, chants, signs) in order to apply thematic analysis to connect their negative sentiments that are associated with confirmation bias and motivated reasoning. Findings regarding confirmation bias and motivated reasoning have been linked to concerns regarding personal rights and distrust with the government, media, and science communities. In particular, the United States has an issue regarding national pride in connection to individuals' personal rights. The goal is to give insight into ways the United States can improve mask adherence for future potential pandemics.

## **Introduction**

The last two years, 2020 - 2021, can be best described by a famous quote from Vladimir Ilyich Lenin:

“There are decades where nothing happens; and there are weeks where decades happen.”

Within the timeframe of the 2020 - 2021 years, decades have passed in the number of historical events that have impacted the United States. From the advent of the COVID-19 pandemic to the takeover of the United States Capitol, there is no debate that these years will forever be embedded into the history books. The impact of the coronavirus in relation to the United States, in particular, has brought about much discussion that is warranted.

During February 1, 2021, the United States had 26.2 million cases of people who have contracted COVID-19, with 441,000 deaths in relation to the virus, the leading number of cases and deaths in the world (The New York Times, 2021; Wikipedia, 2021). When drawing comparison to other nations in the world, these numbers of coronavirus cases and deaths become significantly stark. South Korea has 78,508 cases with 1,425 deaths and Taiwan has 916 cases with 8 deaths. Even India, the second nation leading in coronavirus with 10.7 million cases and 154,392 deaths, has half the numbers in comparison to the United States. It emphasizes the question – What went wrong in the United States?

While many attribute these numbers to a variety of factors – delays in response, contradicting statements in protocols, lack of enforcement – it has become apparent that the issue is exacerbated by a phenomenon that has been coming up in the news, social media, and other outlets: the Anti-Mask Movement. There have been protests fueled by this sentiment in regions such as the United States, Canada, and Europe with a large number of people attending these

events. In contrast, there has been significantly less backlash that has arisen in Asia, as a much smaller number of anti-mask individuals and protests have come up in regions such as China, Japan, and South Korea.

In this paper, I hope to explore the psychological mentality behind the Anti-Mask Movement. In order to do so, I decided to focus on two particular psychological frameworks: motivated reasoning and confirmation bias. Motivated reasoning is the use of emotional reasoning in order to validate or create justifications out of self-interest, in order to lean towards arguments that favor a conclusion that the individual would want to believe in (Kunda, 1990; Epley & Gilovich, 2016; Baekgaard, Christensen, et. al., 2017). Confirmation bias is the tendency to favor information that confirms an individual's prior belief or values and not consider an opposite belief or conclusion (Cheikes, Brown, Lehner, & Adelman, 2004; Satya-Murti & Lockhart, 2015).

By using these frameworks, the goal of the study is to understand the main indicators that trigger these mentalities in the Anti-Mask Movement, along with potential effective solutions that will allow any nation, including the United States, to expeditiously address issues like the Anti-Mask Movement. With the potential of future health hazards similar to the COVID-19 pandemic, I believe that it is necessary to create an infrastructure that will create preventative measures from having as many lives lost as possible.

## Literature Review

In order to further extrapolate and understand the anti-mask movement, it is important to define what it means to be in the stance of 'anti-mask.' The key characteristics of people who are anti-mask are those who have a negative sentiment towards or are against the use of masks. While the reasons to oppose the use of masks may vary depending on individuals, I hope to explore the possible motives and pre-existing belief systems of these people.

### i. History of the Anti-Mask Movement in the United States

The Anti-Face Mask Movement is not a new phenomenon that has suddenly surfaced during the 2020 year. During 1918's influenza pandemic, there were many individuals who opposed the use of masks. Labeled as "Slackers," these individuals were opposing mask use either due to personal ideological beliefs or an infringement of their personal freedoms, but these stances were not linked in political or partisan allegiance. Many times, politicians and leaders deemed wearing a mask patriotic, stating that there are soldiers currently fighting at the fronts in World War I and that it is the people's civic duty to do their part at the homefront (Giuliani-Hoffman, 2020).

Much of the strong opposition occurred whenever there were mandates for mask use in specific cities. Particularly in San Francisco, two mandatory face mask orders were implemented between 1918 and 1919, with other interventions like business and school closures. During 1918's mask mandate, there was a general compliance that existed with the mandate. Even so, there were a number of people who pushed against the mandate, thus the police initially issued tickets at \$5 but gradually increased the fine as the days passed. After numbers dropped in cases for the influenza, the city reopened and the mandatory mask orders were lifted. With a population just emerging from World War I along with the damages that came from the 1906 earthquake, people started to celebrate their newfound freedom, causing a second wave of infections and death through the city. This brought around 1919's mask mandate, causing people to be upset about the new restrictions. This motivated individuals to create an organized opposition called the Anti-Mask League (Dolan 2020; Giuliani-Hoffman, 2020; Kane, 2020).

The Anti-Mask League was an organization that believed that the obligation to cover one's mouth and nose is against their constitutional rights and principles of a free society. Run by a leadership of all women, the organization pushed against the medical recommendations that masks helped prevent the spread of the influenza, an issue that was not a fortified front of the health experts. During the time, the American Public Health Association recommended the use of masks by anyone in close contact with others, but contradicted itself by stating that the evidence as to how well masks prevent the spread of influenza was inconclusive (Dolan, 2020).

This caused a large amount of distrust with the San Francisco government. Even when the association provided measures that didn't reinforce mask use, the city still remained resolute in their stance for wearing face masks under the guidance of Dr. William C. Hassler, the San Francisco Public Health Officer. After threats and even an attempted bombing of his home, Dr. Hassler eventually removed the mandate on February 1, 1919. Despite the social efforts to contain the spread of the influenza, San Francisco became one of the heaviest impacted areas, with the final numbers of death being 30 per 1000 people. The potential reason for the slowdown in the influenza spread rates, according to epidemiological analyses, was that the virus may have spreaded enough to inflict mass immunity (Dolan, 2020; Kane, 2020).

## ii. Psychology of the Mask

In order to explore the mindset behind the anti-mask movement, I believe that there are two dominating psychological frameworks that arise from individuals behind the anti-mask movement – motivated reasoning and confirmation bias. Motivated reasoning refers to the use of emotional-biased reasoning to produce justifications or decisions from personal desire, rather than scientific evidence. This mentality allows the individual to reduce any logical gaps or cognitive dissonance that exist (Lord et. al., 1979; Tetlock and Levi, 1982; Psychology Today). Confirmation bias is the way that people interpret, recall, and favor particular information that supports or confirms an individual's prior values or belief systems (Mynatt, Doherty, & Tweney, 1977; Nickerson, 1998).

Motivated reasoning and confirmation bias are inextricably linked to one another, especially since these biases arise from cognitive dissonance (Stone & Wood, 2016). In the context of the COVID-19 pandemic and the anti-mask movement, cognitive dissonance is best described when cognition and behavior contradict one another (Arson & Tavis, 2020; Karlins, 2020). For example, the dissonant knowledge in this situation is that *contracting COVID-19 can kill me or others*. In order to address the dissonance, the individual must either reduce the risk by wearing a mask or justify not wearing a mask.

Cognitive dissonance is usually associated with a form of discomfort, especially when regarding a topic or belief system that is close to the individual. Due to these reasons, cognitive dissonance eventually leads to the following possibilities:

- 1) Reconsideration the individual's beliefs or values
- 2) Consideration of other options with these factors in mind
- 3) Reaction to the limitations that exist
- 4) Alteration of the individual's perspective on the purpose of the belief or value

Cognitive dissonance is usually associated with a deeper psychological fear that an individual has, a fear that makes the anti-maskers believe that wearing a mask is political pandering, not medical advice (Arson & Tavis, 2020; Brady, Clark, & Davis, 1995). To understand the anti-mask movement, we must recognize that the actions and decisions that individuals involved in this movement are driven by this fear, and that the frameworks of motivated reasoning and confirmation bias will allow us to further unmask this fear.

## iii. President Trump and the Anti-Mask Movement

In comparison to the 1918 Influenza pandemic, there are some stark differences that exist. While anti-mask protests have been occurring under Trump's presidency, these protests have not been mostly implemented by a single organized group or league, unlike those during the 1918 Influenza pandemic specifically in San Francisco. Instead, these protestors have been rallied under a broad and overarching movement and anti-mask sentiment (Beer, 2020; CBC/Radio Canada, 2020). The popularity of the anti-mask movement has increased exponentially in scale, not only because

the idea of mask-wearing had transformed into a politically polarizing topic, but also due to the fact that it had become a socially divisive issue in American daily life due to the current COVID-19 pandemic.

The heightened popularity of the anti-mask movement could be attributed to two factors: political polarization and ideological allegiance. Political polarization and ideological allegiance have become extremely visible and apparent due to President Trump's political rhetoric and his extremist following that actively accepts his words as the absolute truth. With crowded political gatherings, known in popular culture as "Trump rallies," and even the recent riot at the Capitol, the cult following that President Trump has accumulated since his pre-election years has been observed on multiple occasions to solely focus on his words and take them in an ideologically absolutist manner (Ordoñez, 2020; BBC, 2021). This absolute receptiveness that Trump's followers show to his actions, ideologies, and words has become instrumental in turning the individual choice of wearing, or not wearing, a mask into an expansive national debate and issue in the political and social spheres, more so than most other countries (Prasad, 2020).

Due to Trump's mixed signals and misinformation about the pandemic, masks, and COVID-19, Trump's extremist following seems to have transformed the concept of mask-wearing into a politically and socially divisive issue. Last year, as the United States gained more information and carried out further research about COVID-19, Trump has constantly downplayed the severity of the virus and the importance that lies with preventing the virus from spreading even further, known as "flattening the curve," as well as giving the public completely false information and statistics about the pandemic (Paz, 2021; Kessler, Kelly, & Cahlan, 2020). This was mainly demonstrated through the White House press conferences that were led by him in order to inform the American public about COVID-19. For example, in a White House press briefing that took place in April 3rd, 2020, we see how the Coronavirus Task Force announced new face mask recommendations made by the CDC, in which they advised the American public that it was crucial to wear a face mask and maintain social distancing guidelines, after discovering that facial coverings greatly reduce the rate and probability of transmission. (U.S. Department of State, 2020; Rev, 2020). However, in the same press conference, President Trump stressed how face coverings will be "really, a voluntary thing" and announced how he will personally choose not to wear one, emphasizing how the CDC guidelines were only a mere recommendation and were not mandatory at all (U.S. Department of State, 2020; Rev, 2020). In addition, in a campaign speech given at Swanton, Ohio on September 21st, 2020, Trump had explicitly stated that the virus "affects virtually nobody" and how COVID-19 only truly posed a risk to the elderly and those with preexisting conditions, even when a majority of public health experts at the time were giving information that proved otherwise (PBSNewsHour, 2020; Rev, 2020). Thus, we can see how on multiple instances, Trump has given information that conflicted with the research and facts that were given by medical professionals. This ultimately creates a divide between politics and science, forcing people to now choose a side between the two. Especially due to the extremist and loyal nature of Trump's following, they are more likely to side with the "facts" and words that Trump reports, even if they are counter to the understanding of medical professionals (Vox, 2020). Especially during an election year, when political polarization and ideological allegiance are heightened, Trump supporters are even more inclined to become receptive to Trump's words and accept them as the whole truth (Bencks, 2021).

With many of Trump's supporters wholeheartedly believing in Trump's downplaying of the severity of the virus as well as his emphasis on the idea that masks were to be voluntary, rather than mandatory, near the beginning of the pandemic, or using his words as a means to justify their own belief that masks aren't necessary, anti-maskers have become enabled and given further basis to enforce their beliefs (Pazzanesse, 2020). In other words, Trump's presidency has become a major catalyst for the manifestation of the anti-mask sentiment and fervor we observe in America today.

#### iv. Other Nations with Masks

In the wake of the pandemic that exists, it is important to reflect on the historical context of face masks in other nations. In regions that currently see anti-mask sentiment such as Canada and Europe, history shows a similar dialogue in the past. Particularly in Canada's history, Canadians have shown resistance towards the use of masks during the 1918

influenza pandemic. The government even ended up withdrawing mandates for mask use after a number of months, as the government did not enforce mask use (Carstairs, 2020). When it comes to Europe, there is not much historical record that shows any enforcement or use of masks during the 1918 influenza pandemic (Loud). The history of negative perception and doubt towards the efficacy of masks has continued to today, in which Canada and Europe both face strong resistance with large rallies going against mask use (BBC News, 2020; Bogart, 2020; Carter, 2020).

This is a stark contrast, historically and currently, with the East Asian countries. In the past, East Asian countries like China, Japan, and Mongolia were faced with the Great Manchurian Plague of 1910 - 1911. During the time, the scientific community came together in order to fight against the bubonic plague, stating that masks help. The masks have been attributed to flattening the infection rates that occurred in the region, and this message to support mask use has continued to exist in East Asia afterwards during the 2003 SARS and avian flu outbreaks (French, 2020).

Even today with the onset of the coronavirus, East Asia is well-known in the media as the region successful in controlling the outbreak. From South Korea integrating their use of technology in order to contact trace individuals to Taiwan's border control, East Asian countries have taken different measures necessary to successfully keep the number of COVID-19 cases low (Ahn, 2020; Wang, Ellis, & Bloomberg, 2020). While taking these measures, there has been a consistent dialogue that news outlets have been stating about East Asia's success in controlling the spread of the coronavirus through its mask culture.

It has been stated in multiple outlets that due to a pre-existing mask culture that exists, East Asia does not have a significant issue regarding mask protests (Jennings, 2020; Leung, 2020; Ryall, 2020). While there are a few instances in which there has been negative sentiment towards mask use, the protests against mask use have been at a small scale (Yonhap, 2020; Spectee, 2020).

In the next chapter, I hope to explore the fear that drives the anti-mask movement in the United States in comparison to other countries.

## Research Methods

### i. Data Collection

In order to further understand the cognitive dissonance that eventually leads to the confirmation bias and motivated reasoning that drives the Anti-Mask Movement, I wanted to conduct a study that explores the mentality of these individuals. By reviewing 34 different videos and over 155 minutes of footage from online videos, interviews, and news, I conducted a qualitative study that analyzes themes that arise from these various videos: interviews, statements, protests, and signs that anti-maskers have chosen.

When it came to selection of regions, I focused primarily on four different regions: the United States, Canada, Europe, and Asia. The United States, Canada, and Europe have been selected due to the number of anti-mask movements and protests that have happened (Aratani, 2020; BBC News, 2020; Hapuhennedige, 2020; The Straits Times, 2020). Asia has been selected particularly due to the opposite reason – the continent barely has any anti-mask protests occurring compared to other areas and has been noted by many news sources as being supportive of wearing masks prior to the COVID pandemic (Friedman, 2020; Jennings, 2020; Wong, 2020). By selecting these regions, I wanted to gain insight into the potential similarities and differences that exist between the different regions when it came to the anti-mask movement. Afterwards, I wanted to compare these regions to Asia to understand potential solutions or strategies that can be implemented in the future to reciprocate the same type of receptiveness towards masks.

Initially, I transcribed all online videos, interviews, and news reports that covered any anti-mask movement related matters. Any information that was in a foreign language, I translated through Google Translate into the English language to allow analysis of word choice and frequency. Any flyers, banners, and signs that I saw in the videos, I made sure to type out the full message that was being presented and translated whenever necessary. The intentional inclusion of signs or banners in our research was to enrich the information that I gained from the videos. As many

protests use signs or banners to increase awareness of a particular issue, the signs or banners that anti-maskers provide give us more insight into their main motivations for protesting (Philipps, 2012). The data collection was completed on March 15, 2021.

## ii. Data Findings

To analyze the qualitative information, I applied content analysis in order to look for particular frequency and context of these specific words. The analysis was done with NVivo 12.0, a qualitative analysis tool that helps organize a wide array of information to group information in an efficient manner (Bethea, 2015). After gathering all of the data, I inputted all transcribed documents into the tool NVivo and filtered out any extraneous information and word choices that do not provide insight into their perspective and stance on anti-mask matters. Then, I ran a word search query to look for particular keyword repetitions that occurred.

From these frequencies, I started categorizing these words based on particular themes to apply a thematic analysis on what motivated the protesters to be against mask use. Through thematic analysis, it allows us to not only look at the obvious meanings behind the words, but also the deeper meaning behind what is explicitly stated. This research method will allow us to also provide results to a wider audience (Braun & Clarke, 2012). Due to this reason, thematic analysis allows us to look into the context of word usage along with quotes in order to identify confirmation bias and motivated reasoning. Afterwards, the themes and their frequency for each type were calculated.

For confirmation bias, I analyzed for particular moments that display misinterpretation or distortion of evidence based on personal bias or experience (Cheikes, Brown, Lehner, & Adelman, 2004). When it comes to motivated reasoning, I looked for any indications that show a logical thinking or mentality that leads individuals to have a biased reasoning (Kunda, 1990). By doing so, I was able to further understand the specific psychological fears that individuals have in the context of confirmation bias and motivated reasoning in order to gain further insight towards solutions to combat the false narrative that exists.

## Findings

In this portion, I will first focus on providing an overview of the themes that arise in the anti-mask movements throughout all four regions: United States, Canada, Europe, and East Asia. I have found that there are four overall themes that arise based upon individuals who are motivated to protest against the use of masks:

1. Personal Rights
2. Religion
3. Economy & Business
4. Distrust with Government, Media, and / or Science

From these themes, I will tally the number of times these themes came up during anti-mask protests, whether from interviews, chants, or signs. Afterwards, I will explain particular phrases and characteristics of each region in relation to motivated reasoning and confirmation bias. In the end, the purpose is to provide comparisons between each region in order to gain insight about their psychological motivations.

### i. Overview

In order to understand the many videos, interviews, and signs that show up in the protests, it was important to look at the context of the sentiments that the people brought about. The themes derived were created after transcribing all of



the information, then utilizing textual analysis for the conversations in order to understand the reason that particular words became dominant or even appeared in the first place. This is how each theme is defined:

Personal Rights was in reference to individuals who felt that their own rights were being violated or infringed upon. In particular, I was able to define this theme whenever people mentioned words like “constitutional,” “choice,” and “consent” – words that were usually used with possessive pronouns and are attributed to things that would personally impact them or anything of their personal interest.

Religion is based on anything that expresses an individual’s religious belief. Words like “Jesus,” “God,” and “synagogue” along with anything that had religious connotation, like the act of praying, were counted within this category.

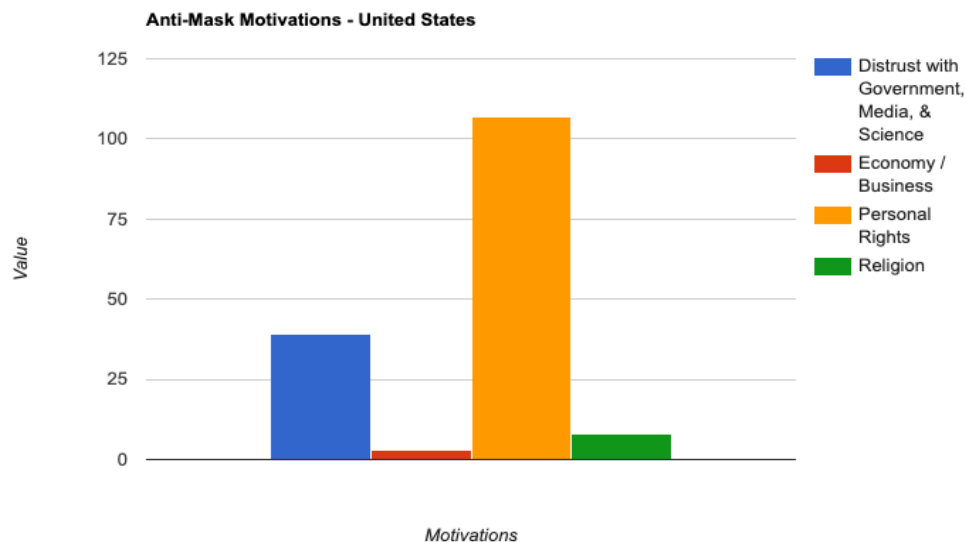
Economy & Business is in context of protestors’ concern regarding anything referencing the shutdown of business practices, business owners’ well-being, or general economy. This usually was in the context of people concerned about the livelihood of people’s businesses or even rights to operate their practice, in reference to regulations regarding masks and lockdowns.

Distrust with Government, Media, & Science is an overarching theme that usually can be considered a concern regarding the abuse of power or the lack of truth. Words like “scam,” “agenda,” and “oppression” usually were words that showed negative sentiment towards government, media, and / or science. Usually, this also included individuals who were spreading misinformation regarding the coronavirus, or even conspiracy theories.

By creating these four themes, the goal is to provide a better overarching understanding of dominant themes in sentiments, or the lack of, along with further understanding the psychological motivations for being against the use of masks.

## ii. United States

When analyzing the word choices used by people in the United States, these were the main motivators that I have found for the anti-mask protestors:



**Figure 1.** Within these key themes, the most frequent topics that dominated the anti-mask movements were personal rights (107) and distrust with government, media, and / or science (39). The other two themes, Economy / Business (3) and Religion (8) were mentioned during interviews, but were not dominant motivators or factors that brought individuals to protest mask use.

When analyzing these motivators, there was a phrase that particularly stood out during the anti-mask protests:

*“We prefer dangerous freedom over peaceful slavery” - Thomas Jefferson*

This statement has become an emboldened phrase that has not only been used to support individual freedom during the anti-mask protests, but have been a quote that is either seen or stated against quarantine lockdowns and even by pro-gun activists (Buckeye Firearms Association; Community Education Channel, 2020; Fox 7 Austin, 2020; Port, 2020). Within this phrase illuminates a deeper issue that exists not only with the context that the statement is being used, but within the general protests.

The original phrase from Thomas Jefferson was *Malo periculosam, libertatem quam quietam servitutem*, a Latin phrase that is more accurately phrased to be “I prefer perilous freedom to peaceful servitude.” This was from a letter that Thomas Jefferson wrote to James Madison as he discussed how democracy can serve as the middle ground between anarchy and totalitarianism (The Jefferson Monticello). The intention of the letter was not to support individualistic liberty or a particular agenda, but rather a perspective of collective effort to keep governmental power in check. The use of this quote reveals the underlying psychological phenomena of motivated reasoning and confirmation bias coming into play:

Motivated Reasoning: I should not be wearing masks, since it is equivocal to slavery.

Confirmation Bias: Wearing masks must be due to the government’s desire to control us.

It is important to understand the logic behind these arguments. The psychology behind motivated reasoning is based around an individual’s personal, emotional desire, a self-interest towards not wearing masks. The confirmation bias does not consider or dismiss other possibilities for wearing masks, such as the prevention of spreading COVID-19 or protecting loved ones from receiving the virus. The deeper implications behind the motivated reasoning and confirmation bias can be derived from a word that has frequently come up in many videos – Freedom.

Particularly, this desire for “freedom” has become the dominant word in these protests, as it is the most frequently used word from the protestors in the United States. It is within this individual versus collective perspective that brings around much strife, as many individuals in the anti-mask protests make it clear that in the end, their personal rights are a priority. There are many instances of emotional reactions, an indication of motivated reasoning, regarding the topic of wearing masks – *You’re not making my rights and not my rights, first of all [...] I don’t give a f\*\*\* what you’re trying to do. You believe in masks, I don’t! F\*\*\*ing leave it alone or you want some of me.* There have been multiple instances like this when individuals are told to wear a mask, a reaction of anger embedded in motivated reasoning that serves as a defense mechanism to decrease shame (Duhachek, Han, & Agrawal, 2011). This desire for personal choice has brought around not only angry reactions, but also the use of particular words like “terroristic,” “slavery,” “forced,” “violating,” and “oppression” to evoke deeply rooted fears and insecurities. Anti-mask protestors have resorted to not listening, as individual freedom is the tantamount importance in comparison to lives, safety, and other reasons:

*This is a single woman who is running this grilled cheese business. This is her dream [...] How I view it is that everyone’s healthcare decisions are their own.*

*I don’t want to keep hearing these fake statistics. [...] My point is freedom. You do not tell us what to do with our faces and what you’re doing is that you’re part of a Satanic mask wearing ritual wearing that thing.*

It is within this mentality of “freedom” that nothing else will justify using masks. Even with evidence and information provided, individuals against the use of masks continue to downplay the significance of the pandemic, claiming that



the use of masks are akin to the use of a “muzzle.” The anti-mask protestors have justified their stance from deriving their beliefs from misinformation and conspiracy theories:

*Masks make it difficult for people to breathe. Oxygen is something that everybody’s body needs to fight off disease, whether it’s cancer, viruses, bacteria. We need oxygen and masks get in the way of that.*

*They’re killing us. I don’t know if anyone has ever explained to you that breathing your own carbon monoxide is not healthy.*

*Oh yeah, the salt water kills this s\*\*\* [coronavirus]. You breathe the salt water, it’s healthy.*

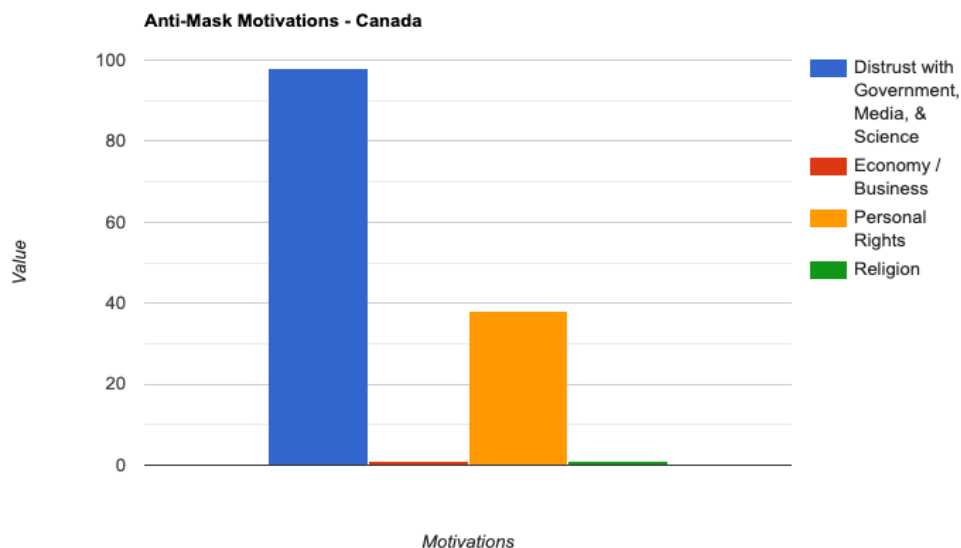
*It is a scandemic [scam and pandemic combined].*

It is evident that this “information,” whether it is disproved scientifically that masks cause individuals to breathe in unhealthy amounts of carbon monoxide or that the government is attempting to gain world control, fits within the dynamic nature and mentality of confirmation bias (Guibeault, Becker, & Centola, 2018; Ling, 2020). This inextricable identity of individual freedom has become synonymous to the identity the United States has as a nation. Many of these anti-mask protestors will end up simply chant:

*USA! USA!  
This is America!*

### iii. Canada

While the United States and Canada are nearby neighbors of one another, anti-maskers in Canada had different concerns that became dominant in the protests:



**Figure 2.** Distrust with Government, Media, & Science (98) was the significant concern that anti-mask protestors had. Some were concerned with potential violations of their own rights (38) while there was only a brief instance in which anti-mask individuals voiced their concern regarding the Economy / Business (1) and Religion (1).

This particular negative sentiment towards authority and information has become a dominant issue in Canada, as police had to arrest many individuals who went against the mask regulations. The distrust towards authority was evident, as many of the anti-mask protestors vocalized their anger through protests and signs about the lockdowns and regulations being implemented:



**Figure 3.** A video from Global News shows anti-mask protests in major centers of Canada. In particular, there is a sign shown by one protestor minimizing the severity of COVID-19 with the sign – Canadian Deaths: Flu First Year: 8,500, COVID This Year: 8,700.

*You tell me that you lied to us in April and I'm supposed to believe you? It's a joke.*

*People do have legitimate health exemptions and people are just so fearful that they don't even want to go nearby anybody, and it's like, you know what, when were they that scared when there was the flu because flus are contagious, colds are contagious, there are so many things that are contagious but, you know, you come into the store and people think you're granny killers but hold on a second – but let's go back to last year, did you wear that? How many people did you kill by not wearing that last year? That's the question I want to ask.*

From Canada's fast implementation of travel restrictions to shutdowns in order to contain the spread of the coronavirus, there was significant pushback against these regulations (Aiello, 2020; Nielsen, 2020). It was these strong government interventions that have caused much outrage from people, a motivating factor for many people to distrust the government, media, and scientists.

The mechanisms for motivated reasoning depends on the protestors finding evidence to support their stance against masks. By creating an "illusion of objectivity," the protestors must either search for memories or create ways in which they can support their stance (Darley & Gross, 1983, Pyszczynski & Greenberg, 1987). The protestors in Canada have attributed their defiance in many ways, whether by questioning the leadership's competency, the severity of the number of deaths from COVID, or even comparing COVID to the flu. This stance of being "objective" to their

information and research, the motivated reasoning behavior, is shown in an interaction recorded by a Canadian resident named Brian Tao in Toronto:

**Protestor:** *You know what? You're wasting my time, and I'm wasting yours.*

**Tao:** *Ahh... now you're saying ...*

**Protestor:** *Because your mind isn't open... it isn't open...*

**Tao:** *Is your's open?*

**Protestor:** *You're not listening!*

**Tao:** *But you're the one interrupting me, aren't you?*

**Protestor:** *My mind has been open for 30 years. I've been an activist for 30 years. I've learned about waste, pesticide, nukes, air pollution, cancer prevention, vaccines, etc. This is just the latest area that I'm concerned about.*

**Tao:** *Ah, so this is just the latest conspiracy...*

**Protestor:** *[Talks over Tao] ... so my mind is definitely open! I've learned tons! I do research.*

**Tao:** *I will tell you about the oxygen molecule and carbon dioxide molecule ...*

**Protestor:** *[Interrupts Tao again] I'm not interested.*

**Tao:** *Oh, so you're not interested? I thought you said you had an open mind?*

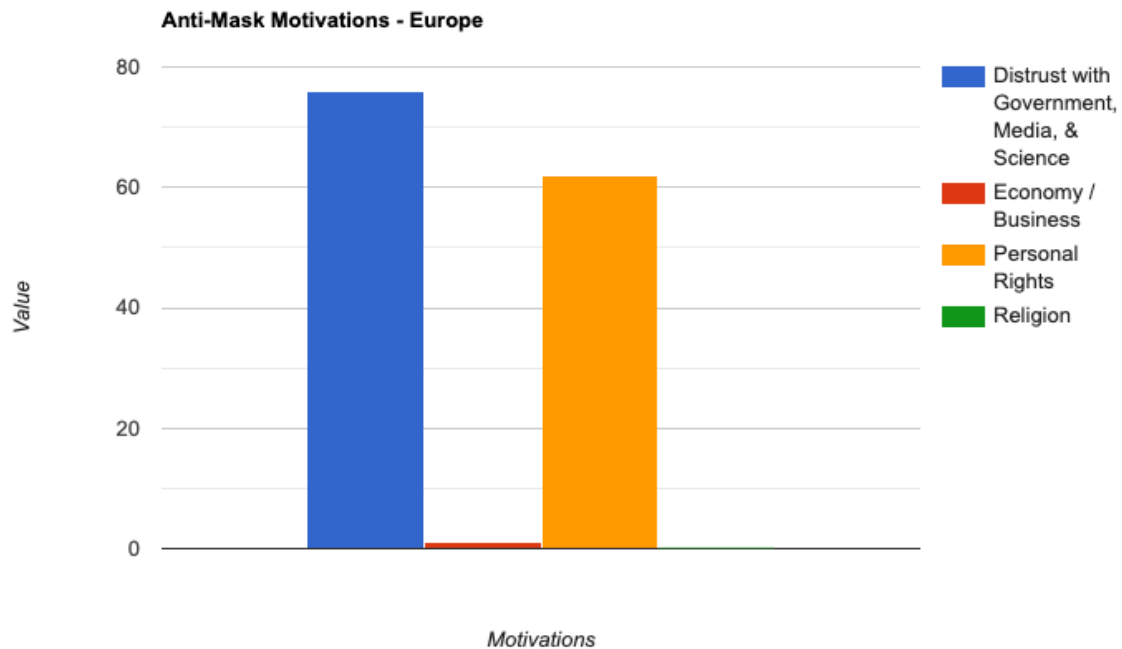
In the interaction, Tao was working to explain the science behind how masks are effective by talking about airborne particles' sizes, but the protestor became impatient with the explanation. Since the reasoning Tao provided countered the protestor's stance, the individual started to become flustered, resorting to misinformation to bolster her information. Eventually, the protestor started contradicting herself during the argument, claiming that she was "open-minded" but was unwilling to listen to Tao's counterarguments.

Contrary to the claim that the protestor made, it is evident that her objectivity is being influenced by confirmation bias. In the protestor's claim to be an activist that has been concerned in topics like waste, pesticide, and other issues, her activism is grounded on past experiences. While Tao's statement about the protestor's belief system being grounded in conspiracy theories may or may not be true, her stances in these issues are consistent based on prior belief systems that she holds strongly.

The protestor is only one of many others that have found themselves aligning to the ideology behind the anti-mask movement. Through confirmation bias, it has been noticed there are also political parties and extremist groups that have found alignment with the anti-mask stance and have joined these protests. BC Libertarian Party, Knights Templar, and QAnon supporters have been a few of the organized groups that have appeared in these rallies pushing conspiracy theories regarding Bill Gates and 5G to anti-government sentiments (Hapuhennedige, 2020; Turcato, 2020).

#### iv. Europe

It becomes evident that when analyzing the reasons that people were protesting the use of masks in Europe, two particular themes became dominant in the anti-mask protests:



**Figure 4.** Distrust with Government, Media, & Science (76) and Personal Rights (62) were the dominant themes that were mentioned or displayed as the main motivators for individuals to participate in the anti-mask protests. Concerns regarding the economy / business (1) and religion (0) were completely absent from the videos that were reviewed. It is interesting to note that there is a complete or almost complete absence of mentions or signs regarding concerns for Economy / Business and Religion.

When analyzing anti-mask protests in Europe, there is significantly more concern and fear regarding the control of the government over people. While it is hard to pinpoint exactly a particular reason for the concern, there may be clues regarding the past history and recent events that have brought around large distrust in authority, as these kinds of signs were shown during protests:

*El Gran Hermano te cuida (Translation from Spanish: Big Brother Takes Care of You)*  
*Weg mit der Regierung! (Translation from German: Away with the Government!)*  
 1984 in Spain

The signs show strong anti-government sentiment, as mentions of “Big Brother” and “1984” are referencing the book *1984* by George Orwell. The book is based on a dystopian science fiction novel in which it discusses the implications and results of a totalitarian government that constantly follows and watches every action and statement that the citizens say. It analyzes how politics and truth can be manipulated in order to favor government control, iterating the particular distrust that citizens in Europe have with their respective governments.

This negative government sentiment may also attributed to the fact that Europe, particularly regions like Italy, was one of the first countries to get impacted by the spread of COVID-19 after the initial inception of the virus in China (Nadeau, Vaughan, Scire, Huisman, & Stadler, 2021). Due to the novelty of the virus and its impact, many countries’ governments and municipalities were initially unable to provide proper guidance to the citizens. The constant shifts in messages being delivered to the citizens caused a lot of mistrust, as it was expressed by Leah Butler-Smith, a campaigner for “Keep Britain Free” (This Morning, 2020):

*So, the fact that there were so many flip flop in the government's advice and now we have these peculiar laws and you do wear them here, but you don't wear them there, but you're in the same shop and don't and so on is creating a large amount of confusion, and that's why the people with critical thinking, people are not brainwashed through the government's propaganda which, everybody knows, is evidence, you can read the sage documentation.*

While the shifts in government's message is more due to the lack of information and knowledge regarding COVID-19's characteristics, anti-mask protestors in Europe found this more attributed to a potential propaganda or ploy for their government to control them. It is within this confirmation bias that has made it difficult for Europe's government to enforce regulations on masks along with containing people from rallying. Political groups and organizations have formed in specific regions in order to protest mask use, including the organization that Leah Butler-Smith is part of, Keep Britain Free in the United Kingdom, and Freheitsbewegung Forchheim in Germany (This Morning, 2020; Guardian News, 2020).

It becomes evident that confirmation bias is intertwined with motivated reasoning in the anti-mask protests, as the interview from Leah Butler-Smith gives some insight into the protestors' perspective on their anti-mask sentiments. During a particular segment during the interview, Butler-Smith points out an argument against the issue with enforcing masks:

*I would like to give you an example because one of the things that I have heard quite a few number of people suggest is that if it saves one person. Well, let me tell you a story – Jenkins, 22 years of age, is autistic, high functioning autism, that means for all intents and purposes, a normal chap, just walking into a shop. He may have his parents with him or maybe no, because, you know, he's perfectly fine otherwise. But he is petrified of not being able to see people's faces because he's had to, over his lifetime, had to work very hard to study people's facial expressions, to understand the meaning of what they're trying to tell you is.*

This argument is unique in that it is the only time that this type of point was made to support the anti-mask perspective. By stating "if it saves one person," Butler-Smith appeals to a specific niche argument in an attempt to equivocate the anti-mask belief to save lives comparative to wearing masks to prevent the spread of the coronavirus. The example creates an emotional appeal to those who support disabled rights along with parents, a form of motivated reasoning that allows Butler-Smith to justify her stance. She continues to support her stance, explaining how many scientists' perspectives were being suppressed, even when an infectious disease specialist Dr. Nathalie MacDermott countered many points that Butler-Smith made.

## v. East Asia

East Asian countries like China, Korea, and Japan have been noted in multiple media sources as some of the best countries who have handled the spread of the coronavirus. The containment of the spread in East Asia has been attributed to the citizen's receptiveness to mask use along with the general culture that exists. For this reason, East Asia was selected as the case study that provides a significant insight into the absence of anti-mask sentiment. While doing research to find protests that have happened in East Asia, there was only one instance found in which there was a recorded account of a small anti-mask protest that occurred in Shibuya, Japan (Spectee, 2020). Besides from the incident, it is evident that there has not been much traction nor issue regarding face masks in these areas.

In order to better understand the lack of motive or even concern regarding the use of masks, I ended up analyzing several interviews conducted by Asian Boss and TokyoBriBri, two different YouTube channels that show the differences in cultures to provide insight as to how other individuals perceive the world along with various phenomena that happen. Both channels cover the topic of using masks, and the in-depth interviews show particular four significant themes that arise when discussing their sentiment regarding masks: Culture, Education, Government, and History. By using these four themes, I analyzed what they discussed in order to see why there is a lack of anti-mask sentiment that exists.



## i. Culture

While it is the case that many people have pointed out cultural differences as being a significant difference in how East Asia has handled the coronavirus compared to other nations, it is important to understand how this came about in general East Asian cultures. It becomes evident that wearing masks in East Asia is a normal thing to do. Even during an interview conducted by Asian Boss during pre-COVID pandemic, Japanese citizens have stated that they would wear masks almost everyday, especially during fall and winter (Asian Boss, 2017). When asked about the reason for wearing masks, there were various justifications that came about:

*It's considered good manners. You're not spreading your germs around.*

*I put it on because the air smells bad. I can't even go on the train without one.*

*If the flu is going around even if I don't have the flu myself, I'd assume that a lot of people have it and that I might catch it on the train for example. So I'd put it on anyway.*

*I think Japanese people are very sensitive to hygiene. That's why I think people generally put on masks even if they have the slightest cold.*

*Another reason might be that girls put on masks to look cuter [...] Basically if they have nice eyes, putting on a mask might draw more attention to the eyes.*

It is unique to see some of the motivations that Japanese people have for wearing masks. In the cultural context, masks are seen by Japanese as a way for people to be mindful of others around them, hygienic, personal convenience factor, and even fashion statement. It has been normalized from early on that masks are deemed to be a positive factor in people's lives, as this receptiveness to masks continues to show even during Asian Boss' interview in South Korea during the COVID pandemic (Asian Boss, 2020). Here are some of the responses from South Korean citizens about why they wear masks:

*I wear a mask because I'm scared of getting infected myself, and if I get infected, it can spread to the people around me because it's so infectious. So I'm wearing a mask to prevent getting the virus. And if you don't wear one, people give you weird looks, like on the subway or in other public places. I'm also wearing masks so it doesn't bother others.*

*I think that mindset of uniting to overcome this situation together as a nation really helped improve the situation.*

It becomes evident that similar cultural contexts come about like the interview that Asian Boss did in Japan, such as being mindful of others along with hygiene factors. The only difference is that rather than viewing masks as a personal convenience or fashion statement, people during the pandemic view masks as an expectation. There is peer pressure that exists, especially when the Korean denizen mentioned that he would receive weird looks if he wasn't wearing a mask. Even during an interview conducted by TokyoBriBri during the pandemic, the male interviewee stated his perspective on the anti-mask movement in the United States, *"I never thought wearing a mask or not becomes a critical issue. I could not imagine this kind of discussion in Japan. Maybe we have a strong peer pressure and perspective of life that could be very different from the states"* (TokyoBriBri, 2020). There seems to be a culture of mindfulness of others, an expectation that has this form of courtesy and respect be connected towards the use of masks.

This attitude of mindfulness and respect to others becomes evident even from TokyoBriBri's female interviewee. When anti-mask individuals argued the point that masks can cause health issues, her response to the point made was that *"I think for people who hyperventilate, that's an exception. If someone is at the point of hyperventilating*



... *But then, don't go places without a mask. Don't go to small and enclosed crowded places.*" It becomes the simple point that the female interviewee did not contest the possibility of health issues associated with masks, but that the individual should, then, take the necessary steps to not expose his or herself and others to the risk of spreading the virus by avoiding close contact. It is a societal expectation for people to wear masks especially during the pandemic, a peer pressure that has helped the East Asian regions slow down the spread of the coronavirus.

## ii. Education

When Asian Boss and TokyoBriBri conducted interviews with individuals in Korea and Japan, it became apparent that people were not simply abiding by mandates of wearing masks. Rather, when strangers were asked about their perspective and understanding of how masks worked, these were their different responses:

*The material in KF94 masks creates static electricity to capture particles coming in. But normal cotton masks don't block out very small particles. And when it's wet, its ability to filter out things drops.*

*The virus spreads mostly through saliva. And the normal masks can only prevent your own saliva from going out. But I heard the KF94 masks can protect you from particles coming in. It apparently blocks out 94% of particles of a certain size. But normal masks can't block out small particles, and they're just for protecting others from your saliva. I think that's the main difference.*

*Of course, I believe it helps. If we all wear masks, our saliva wouldn't end up on any surface, and that would prevent the virus from spreading between people.*

*By not wearing a mask, you might spread it to others. Even if someone doesn't have symptoms, they can spread it. Of course, it is not good to spread it. The goal of wearing a mask is to avoid spreading it to others.*

Individuals were able to not only distinguish the difference between a KF94 mask and surgical mask, but they understood the significance of wearing a mask in context of information being available at the time regarding the coronavirus. By having information disseminated fast and provided in a clear and concise way, it becomes apparent that these regions were not left with uncertainty about how impactful or significant the use of masks are towards containing the spread of COVID-19.

## iii. Government Involvement

While there was not much mention in the interviews regarding the government's involvement with mask use in Japan, it became clear that South Korea's government implemented strong measures early on for the onset of the pandemic. In particular, the Korean government utilized technology in order to not only have strong contact tracing capabilities, but also utilized it to keep citizens informed of resources available (Fendos, 2020). This was strongly influential towards building support towards mask use, as interviewees mentioned this aspect:

*But nowadays, we can buy the official weekly masks, and I've been buying them under that government system. So I think it's much easier to buy masks now compared to last month.*

*It's because the government acted quickly on this matter so we could get easy access to masks.*

*I personally think the official weekly masks system helped with that situation. If too many people are trying to buy masks at once, some people won't be able to purchase any. And even if they go the next day, if the lines are too long, they won't be able to buy any again. So I think it's efficient that they're assigning days to help with that.*

*Well first of all, the Korean government is helping factories produce more masks. They're even regulating the number of masks being exported out of the country. And recently, Samsung helped the government bring more mask filters from abroad. So I think it's thanks to the government regulating the situation.*

The South Korean government not only pushed to ensure that there are masks available, but have even regulated the supply of masks so that every person could gain access to masks. By using personal identification based on birth year along with phone applications to show locations of pharmacies, individuals are able to gain access to masks that are subsidized in cost by the government. This allows the masks to be accessible and affordable for anyone, setting the expectation that there are less reasons available for someone not to wear a mask.

#### iv. History

It has become apparent that two issues have caused the need for masks in the past for people in East Asia – industrialization and outbreaks. When it comes to industrialization, the roots of the issue is found in China, in which the desertification of northern China, Mongolia, and Central Asia is caused by overexploited water sources, extensive logging, and deforestation. Due to the winds picking up “fine dust,” unhealthy air conditions have impacted not only China, but also Korea and Japan (Bicker, 2019; Watts, 2009, Yamagishi, 2021). These hazardous conditions have caused people to wear masks prior to the pandemic in order to protect their lungs from the fine dust. Another reason attributed to people accepting the use of masks is due to the prior outbreaks. These two reasons – industrialization and outbreaks – are mentioned throughout different interviewees’ responses:

*In those countries, people are probably not used to wearing masks. In Korea, before we had COVID-19, we faced MERS and the swine flu, so we've had about a 10 year history of wearing masks. But Western countries didn't face such a big MERS outbreak like we did, and their air pollution is probably not as bad as ours. Plus, they don't have a mask wearing culture, so I understand that they might have a negative outlook on wearing them.*

*It's really bad [air pollution]. When I first came to Tokyo, I realized how bad it was.*

*From about 100 years ago? [Response to when she thinks Japanese started wearing masks in public. The Japanese reportedly started putting on masks from 1919 because of an influenza outbreak]*

It is due to multiple factors in the past that have made East Asians find masks necessary. There is a form of conditioning that has made masks a daily need in many citizens' lives, even before the pandemic came about that contributed towards the lack of anti-mask sentiment.

#### v. Comparisons Between Countries with Anti-Mask Protests

When drawing comparisons between the different countries, I decided to use East Asia as a control variable, a country that doesn't have issues with anti-mask sentiment. The distinct characteristics allow us to see possible reasons that have brought these distinct differences when it comes to mask use.

In order to better understand the differing anti-mask sentiments, I decided to compare the United States to Canada and Europe in order to see if there are distinguishable differences in how anti-mask sentiment exists. By doing so, I wanted to gain insight into what makes the anti-mask sentiment in the United States unique, along with analyzing the psychological construct that drives the anti-mask movement.

## vi. Similarities Between United States and Other Countries

Much of the protests that happen in Canada, Europe, and the United States have consistent or similar messages. Whether it is based upon the concern regarding masks constraining the use of oxygen, or the fear regarding government control, the main key points have been consistent throughout these nations. It becomes clear that the misinformation fueled by fear has become a dominant force, a factor that I believe may have been caused by some sources, such as QAnon, an entity known for creating conspiracy theories (Roose, 2021). In all three countries, I have seen consistent messages that imply or explicitly showing ties to QAnon and their messaging – signs stating WWG1WGA (When We Go One We Go All) in Toronto, Canada, citizens stating that QAnon informed them that the government’s mask mandates is attempting to divide people or even waving the “Q” sign in Germany shown in Figure 5, and even shirts that state “We Are Q” in Boston, United States, to even in (CBC News: The National, 2020; Euronews, 2020; Spring & Wendling, 2020). There are other implications and references to QAnon that have shown up in interviews, chants, and signs during anti-mask movements throughout Canada, Europe, and the United States, as topics regarding “Save Our Children,” anti-vax stances, and even Bill Gates along with 5G to track people are all topics that have been generated by the QAnon conspiracy (Ankel, 2020; Montpetit & MacFarlane, 2020; Spring & Wendling, 2020).



**Figure 5.** An image from Twitter shows anti-mask protestors in Germany waving a sign stating to President Donald J. Trump, “Please, Mr. President, Make Germany Great Again!” It is important to note the Q’s written on the sign, which shows connection to the QAnon conspiracy group.

It is also important to note that not only within the context of the United States, but also in Canada and Europe, references and signs showing support of President Donald J. Trump has been seen in multiple anti-mask protests.

## ii. Differences Between United States and Other Countries

When initially looking at anti-mask protesters' concerns in Canada and Europe in comparison to the United States, all three nations seem to emphasize two topics: Distrust with Government, Media, & Science along with Personal Rights. While this is the case, the particular response that dominated the protesters' concerns become distinctly different when looking at the three nations:

**Table 1.** Concerns in different countries

Nations	Distrust with Government, Media, & Science	Personal Rights
Canada	71.0%	27.5%
Europe	54.7%	44.6%
United States	24.8%	68.2%

It becomes evident that Canada and Europe's primary concern is involved with the authority, the United States' concern is based on an individual's personal rights. The individualistic perspective that the protesters demand in the United States even pervade the characteristics of the movement and protests. While Canada and Europe seem to distinctly have multiple organized groups, factions, and political parties that appear to openly support the anti-mask protests, the United States appear to not have any organized entity that participates in these demonstrations.

When analyzing the responses that supported the anti-mask stance in the United States, many responded that it is within their constitutional right not to wear a mask. It has come to the point that the individuals have made the name America become synonymous with unbridled individual freedom, even protesting at anti-mask protests by simply chanting "USA" or "America" to show defiance against the use of masks. There are no other protests in Canada or Europe in which individuals have said their respective countries.

While there is commonality within the conspiracy theories that bring the anti-mask sentiment protests to exist, the United States has a larger issue it faces – a form of jingoism that is juxtaposed with confirmation bias and motivated reasoning. Through the American identity, it has become evident that this individualistic approach has allowed people to automatically create a form of immunity towards information or regulations. Through the visage of "freedom of speech" and personal rights, the anti-mask Americans feel a sense of entitlement towards their own actions and belief systems that seem, at times, to contradict other stances that they may have. While the stance of being anti-mask can potentially cause others to die from the spread of the virus, the anti-mask protests have taken the stance of caring about children's lives. Within this constant cycle of jingoism, confirmation bias, and motivated reasoning, it has become evident that the anti-mask phenomenon in the United States has been exacerbated significantly by the constant optionality of people to willfully choose reasons that are veiled as being for a collective or greater purpose, but in the end are for personal reasons.

## Conclusion

In the end, the United States and how it handled the coronavirus has shown larger implications that need to be fixed. While there are evidently issues that tie to the jingoism and culture of the United States, there are factors that have



exacerbated the way that the United States could have handled the early onset of the virus. There are several recommendations based on these topics: Government Intervention, Leadership, and Psychological Framework.

### i. Government Intervention

From the way that South Korea has handled the coronavirus, it becomes clear that the best way to control the outbreak of the virus is through strong government interventions – contact tracing, communication, and supply control. In particular, it is necessary for the government to have a strong contingency plan that has procedures that include regulating immigration along with how businesses and public transportation can operate. By doing so, it became one of the significant factors towards setting a serious precedent about how the virus outbreak should be viewed by the public.

It is also important to improve the use of technology and resources in order to reach out to citizens early on. By informing citizens fast about any new findings about the virus along with procedures in order to receive supplies like masks, people can make more informed decisions and actions along the way. While doing so, phone applications can become an integral part of how the government can update others along the way, providing clear communication along the way to build a sense of trust with the government.

These procedures can help reduce the amount of cognitive dissonance associated with motivated reasoning and confirmation bias. From the instances shown in Canada, Europe, and the United States, it becomes clear that strong government interventions with lack of communication cause people to create assumptions such as believing that the government wants to control the people. Also, this mistrust can also be exacerbated by having the media be the “messenger”, as the media and newspapers can bring about misinterpretations and misunderstanding. By looking for ways to reach out to people directly rather than allowing the media to potentially influence the message, it leaves less room for people to bias the message that is iterated.

Media is also another factor that the government needs to provide more intervention. So far, actions to control the quality and accuracy of information have been done through mediums like Facebook and Twitter. These social media platforms have been taking actions in order to censor incorrect and untruthful information that is being disseminated throughout the internet (Washington Post, 2018; Twitter, Inc., 2021). Even so, these actions have been controversial and problematic in their own aspect, as many of the conservatives have seen these actions as politicization of a space intended for free speech (Greenwald, 2020; Guynn, 2020). By having the government intervene to target malicious sources of conspiracy theories and blatantly incorrect information sources, the government can set the precedent of what is considered constitutional under the freedom of speech. It is evident that there is a lack of knowledge that exists as to what the 1st Amendment of the Constitution means, as many citizens seem to interpret these words as a complete free will to do anything without any ramifications for their actions.

### ii. Leadership

It is necessary for the nation to set clear expectations not only through technology and resources, but also through leadership. By having leaders in the government along with the scientific community provide a consistent message to wear masks, this will marginalize the amount of resistance that exists regarding wearing masks. It becomes evident how significant and influential leadership especially in the United States is, as some of the interactions showed how leadership can empower the anti-mask sentiment (CBC News: The National, 2020; Global News, 2020):

*Whenever I see my President not wearing a mask, I can actually see him talk. When he doesn't wear a mask, it builds confidence in me – Mask builds fear.*

*There is no Neo-Nazi thing going on here. This is all people – yes some of them like Trump – usually people who like Trump fall in line with Anti-Masking freedom rallies, stuff like that.*

These instances show how important leadership can influence the number of lives saved or lost. Especially with the United States being a nation that has strong influences internationally, anti-mask protestors even outside of the United States are emboldened to resist mandates for masks, waving signs in support of President Trump in areas like Germany and Spain.

In the early onset of the pandemic when lack of information and uncertainty is significant, it is important for leadership, particularly the United States President, to set a clear example and expectations from the start. By following the advice of the scientific community and being consistent in message, these actions would have marginalized the amount of irrational fear that exists. This would have allowed for the federal government to implement particular measures more effectively, thus reducing the amount of cases and deaths faster in the United States. Eventually, it would have been faster for the general economy of the United States to open up, alleviating the amount of stress and concern that people have.

### iii. Psychological Framework

Purely in a psychological framework, it is necessary to talk about how to mitigate confirmation bias and motivated reasoning when it comes to mask use. It is apparent that while there are a number of reasons that people are resistant towards the use of masks, there needs to be plans in place in order to encourage the use of masks.

It becomes evident that in these psychological mindsets, negative punishment such as jail time or a fine is not the best way to address the issue, especially since confirmation bias and motivated reasoning would cause a response of victimization and will not address the resistance against mask use (Jack & Egan, 2015). In particular, punishing anti-mask citizens in the United States will make them feel that they are victims of a cruel system, stating that their personal or constitutional rights are being violated.

In regards to the jingoistic mentality, a longer term solution will incorporate better messaging that builds rapport that empowers the individual to take action to help others and the United States. This would require publicity to encourage mask use in a positive angle, or even marketing that portrays consensus while emphasizing the individual's duty as an American citizen to help (Taylor & Asmundson, 2020). Also, by having health guidelines and information be presented in a simple, concise, and consistent manner, it will marginalize the amount of resistance that exists towards authority (Pechmann & Reibling, 2000).

### iv. Ending

I worked to give more insight around the confirmation bias and motivated reasoning bias that have strongly influenced the anti-mask movement in the United States. While it would have been desirable to interview in-depth a number of anti-mask protestors, the risk associated with contracting the COVID-19 made our study become solely focused on data available through other sources. I believe that if there have been interviews conducted that ask particular questions, it would have allowed us to understand the psychological framework that allows individuals to stand by their anti-mask sentiments. For instance, it would have been interesting to ask female anti-mask individuals their perspective on personal choice in regards to other matters, such as the controversial topic of abortion.

By developing a strong government action plan that involves clear communication and outreach to communities in the United States, it is possible to bring people together to save lives. It is vital to continue understanding the mistakes that we have made as a nation, to address the issues we have so that we can continue to progress forward, even if another pandemic occurs in the future.



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