

An Analysis of COVID-19 News Articles: How Media Creates Cognitive Distortions Through
Psychological Biases

Helena Buttons

State University of New York

BRC419

Jason Zenor

11/4/2020

Abstract

A variety of sources from all over the political spectrum that focus on the Novel COVID-19 Pandemic between the months of February and November 2020 are analyzed to find psychological biases. This small sample size of stories exemplify the biases and human instincts which lead to the cognitive dissonances affecting the state of the American mind. The results of this analysis support the hypothesis, that psychological biases lead to widespread cognitive distortions which inhibit the United States from independent thought. The analysis further considers the effects of these biases and the subsequent lack of critical thinking on the American political and social climate, concluding that free thought is indeed in danger.

Democracy Dies In Darkness. Well, it turns out that democracy also dies in light. The future of the United States first amendment hangs in the balance, but the threat doesn't come from the outside. The media has been manipulating Americans since it's creation. Recently, "fake news", "alternative facts" and other misleading phrases have been pervasive in the United State's chaotic political and social climate. It may be the media's doing, but it is American's fault. The lack of media literacy being taught in the education system allows children to grow into adults that fall victim to misleading information. Even worse, if the information isn't misleading, the interpretation is. This paper, based off the book *Factfulness* by Hans Rosling, Ola Rosling, and Anna Rosling Rönnlund. This book goes through a variety of human instincts that are inescapable when interpreting information and manipulated by the media to create narratives for American culture. This paper explains some of these instincts, also referred to as biases included but not limited to: The Gap Instinct, The Negativity Instinct, The Straight Line Instinct, The Fear Instinct, etc. These instincts and biases exploited through the media train the brain to interpret information in very specific ways. These taught misinterpretations are called cognitive distortions. Through careful examination of news articles released during and about the 2020 COVID-19 Pandemic, this essay will argue that psychological biases influence the production and consumption of news to the extent that widespread misrepresentation and misinterpretation lead to a number of cognitive distortions for the majority of the population ending with biggest danger to democracy: An inability to critically think.

Overview of Factfulness:

Factfulness describes the path to having an untainted worldview. The instincts in the book are combined with advice given to make the reader aware of how to minimize these biases in real life. For both the literal advantages it brings when navigating through the world to the

emotional advantages that it brings when the world is a little less dramatic, *Factfulness* contains the approach to media interpretation that allows all the benefits of a fact-based worldview to flourish.

Overview of Study:

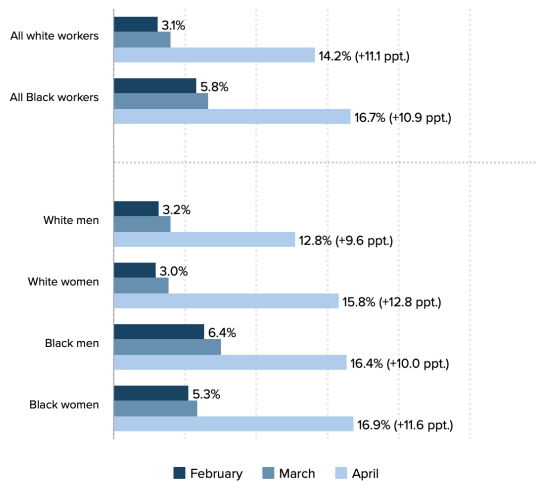
In this paper there are 10 news articles from a variety of sources from all over the political spectrum that focus on the Novel COVID-19 Pandemic between the months of February and November 2020. This small sample size of articles exemplify the instincts mentioned in *Factfulness*. Following these articles is how each of the biases are featured in the article, how the bias influenced the story, and how the bias influenced American's perception and actions throughout the COVID-19 pandemic. A psychologically recognized cognitive distortion is assigned to each bias. The results of this study support the hypothesis, that biases in media presentation lead to bias in media interpretation. This inevitably leads to widespread cognitive distortions which inhibit the United States from independent thought. This paper further considers the effects of these biases and the subsequent lack of critical thinking on the American political and social climate, concluding that unbiased thought is indeed in danger.

The Gap Instinct

The first of 10 articles is one focused on the subject of racial disparities in unemployment rates due to COVID-19. The article from the Economic Policy Institute features a message and one particular graph that I believe represents the misleading framing of information that constitutes the Gap Bias. The Gap Bias is "that irresistible temptation we have to divide all kinds of things into two distinct and often conflicting groups, with an imagined gap - a huge chasm of injustice - between"(Rosling et al., 2018, 21). In this particular story, the headline combined with this graph creates a dichotomous relationship between the white unemployment rate and the

black unemployment rate and how they are affected by COVID. “Black workers face two of the most lethal preexisting conditions for coronavirus—racism and economic inequality” (Gould & Wilson, 2020). Though racism and economic inequality certainly are real and lethal problems, they are misrepresented in this article. The article frames the unemployment rates as a drastic injustice which COVID has exacerbated, when in reality COVID made unemployment worse for white and black workers at an almost even rate.

While unemployment skyrocketed for Black and white workers in the COVID-19 labor market, the unemployment rate is higher for Black workers
 Unemployment rates by race, and by race and gender, February–April 2020



Note: White refers to non-Hispanic whites, Black refers to Blacks alone.
Source: EPI analysis of Bureau of Labor Statistics Current Population Survey public data.

(Gould & Wilson, 2020)

The unemployment rate has grown dramatically for all racial groups during the pandemic. Though the percentages during April are 2.5% off from each other between the two examined racial groups, the growth rate from March to April is similar for both. White worker’s unemployment suffered an 11.1 point increase, even greater than the increase for all black workers. Though the overall unemployment rate is lower, white workers actually suffered a

greater increase in the percentage of unemployment from March to April (Gould & Wilson, 2020).

The use of the Gap Instinct frames this story as a black and white racial oppression story, when that is not the case. The racial implications in unemployment rates and the systemic racism that creates them existed before COVID. The piece was meant to garner outrage, especially because it was written on June 1st, just 5 days after the racially motivated killing of George Floyd in Minneapolis.

This polarizing bias separates and creates an “us” versus “them” when in reality there are many more individuals than there are “us” or “them”. There is so much more middle ground than perpetuated by news stories that continue to polarize and make everything black and white. This gap bias influenced American’s view of the pandemic because it allowed the perpetuation of “black and white” thinking as a realistic distortion in our collective mind (Grohl, 2019). There are shades of gray in life, and the failure to acknowledge them is a failure to acknowledge fact.

Secondly, also bolstering the cognitive problem of dichotomous thinking, is an article infantilizing people over the age of 65. Even in the title “Older Adults and Covid-19: The Most Vulnerable, the Hardest Hit”, we can see that the article romanticizes the fragility of the elderly (Powell et al., 2020).

In reality, of course the death count above the age of 65 deserves to be worried about and taken into consideration during legislation. The problem is when the author does not acknowledge the recovery rate of people over 65 as well as the deaths. A study showed that the amount of recovery days in their sample group is between 450-600 days for all age groups except 20-29 year olds (Voinsky et al., 2020).

Table 1

Recovery rates from SARS-CoV-2 infection among Israeli male and female COVID-19 patients by age groups. (a) Recovery periods (days) calculated from an anonymized dataset of recovered COVID-19 patients released to the public by the Israel Ministry of Health on April 28 2020 (<https://data.gov.il/dataset/covid-19>). This dataset includes time (days) from first positive to first negative SARS-CoV-2 PCR test for 5769 Israelis (3370 men and 2399 women). **(b)** Analysis comparing patients aged 0–29 years and >30 years.

a.

Recovery Rate (Days±SD)

Age (%Male)\Sex	0–19 years (54.6%)	20–29 years (60.7%)	30–39 years (59.9%)	40–49 years (59.5%)	50–59 years (54.5%)	>60 years (56.7%)
Male	13.61±5.89 <i>N</i> = 510	13.97±5.81 <i>N</i> = 859	14.46±6.0 <i>N</i> = 502	14.79±5.72 <i>N</i> = 460	14.81±5.90 <i>N</i> = 457	14.73±5.896 <i>N</i> = 582
Female	13.24±5.70 <i>N</i> = 423	13.99±5.9 <i>N</i> = 556	14.17±6.14 <i>N</i> = 335	14.76±5.90 <i>N</i> = 313	14.18±5.90 <i>N</i> = 328	13.99±6.44 <i>N</i> = 444

(Voinsky et al., 2020)

Once again, there are recovered elderly people. It is not reduced to just “alive and uninfected” and “dead and infected”. People over 65 have survived, and the failure to acknowledge that perpetuates the dangerous idea that this virus is deadly to all that contract it. Perhaps this was the author’s intention, to make sure that people were scared enough to do something about the neglect that elderly people are receiving during the pandemic. Even if the cause was as noble as that, the bias used in this article influences news to be an inaccurate representation of data to spark fear and outrage.

The Negativity Instinct

Along the lines of the vague misrepresentation of data comes the Negativity bias. This bias is simply “our tendency to focus on the bad more than the good” (Rosling et al., 2018, 48). The Center for Disease control may not be responsible for delivering the good news, but they certainly do deliver the bad. For a single example out of many, one of their Weekly Morbidity and Mortality Reports released just a week after the WHO declared COVID a pandemic, the CDC published only the 170,000 confirmed cases and 6,500 deaths (Razzaghi, 2020). What they failed to mention is the 77,000 recovered cases as well (Gallagher, 2020).

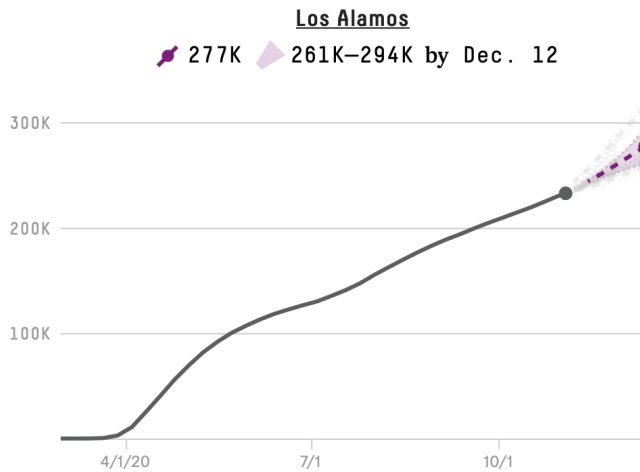
The use of this tactic to not include the positives helped the CDC establish the severity of the pandemic at the beginning of its breach into the United States. By not including the positive, the CDC could use the climbing death toll to urge citizens and government officials to social distance. It helped frame the story as an emergency.

Unfortunately, most notable and dramatic news stories are negative. This hurts the mental health of the country (Rosling et al., 2018, 74). This bias strongly influenced how the majority of Americans viewed and currently view the pandemic. They are surrounded by negative news of death tolls, hospitalizations, and political polarization, yet not of the dramatic positives that have come out of the pandemic as well. This has led to the collective cognitive distortion known as “Filtering” in psychology. This distortion takes the negative details of a situation and magnifies them (Grohl, 2019). This is incredibly damaging to the psyche of the country, and must be adjusted if we wish to interpret news correctly.

Straight Line Instinct

Another tactic to scare the general public with impending doom is the media’s tendency to believe in straight line graphs. Most graphs with accurate and fairly gathered data do not feature completely straight lines, and so it is confusing to think that most audiences will

extrapolate a straight line. Rosling states that “our straight line intuition is not always a reliable guide in modern life” (Rosling et al., 2018, 80). In the case of COVID 19 predictions, almost all of the short-term predictions are completely straight (Best & Boice, 2020).



This model assumes that there will continue to be interventions, such as stay-at-home orders, but it does not specifically assume what those interventions will be. Instead, it considers various possible interventions to arrive at its forecast, which typically results in wider prediction intervals than a model with stricter assumptions.

(Best & Boice, 2020)

This frames the narrative of the virus around the idea that it will continue to rise despite our best efforts. It confirms the hopelessness that negativity bias instilled. This represents the cognitive distortion of jumping to conclusions before getting all of the information and then being unwilling to change that assumption (Grohl, 2019).

The Fear Instinct:

Furthermore, something else that is arduous to change once established are the human species' innate fears. The fears that resonate so deeply that they are hardwired into human bodies. Unfortunately, news media is aware of these and uses them to capitalize on general anxiety. The Fear Instinct, or fear bias, is the abuse of our perception that we may be faced with

certain innate fears (Rosling et al., 2018, #). In an article by Tara Santora, she gives “10 Reasons We Should Still Be Afraid of COVID” (Santora, 2020). The article hits death, captivity, sanity, and physical health fears all in a convenient list. The author’s intention is to scare the country into restrictions similar to March 2020, and instilling fear into the very article helped with that mission (Santora, 2020).

Using fear as a motivator is prevalent in American news cycles. Everything is the end of the world. This cognitive distortion is known as catastrophizing (Grohl, 2019). It hurts the American public to think that no matter what, disaster will strike at some time and to imagine that the worst is coming. Instilling fear is instilling hopelessness.

The Size Instinct:

Once again, negativity is used as a weapon of distortion only this time through numbers. On NBC, they reported COVID deaths soaring to new heights, just days before people planned to vote in person. The article cited that case numbers are rising 25% in 40 states, with 98,500 infections reported on 10/30/2020 (Chiwaya & Siemaszko, 2020). Contrary to these paralyzing numbers, the day the NBC article sources reported that death rates among hospitalizations have fallen 18% due to an increasing number of effective treatments (Gandhi, 2020). These two numbers can coexist and are both accurate, but one inspires dramatization and fear before election day while the other inspires hope for a cure or treatment.

The Size Instinct is the misjudging of numbers when they are by themselves (Rosling et al., 2018, 128). Humans naturally through numbers out of proportion, so to examine news numbers with a critical eye is essential (Rosling et al., 2018, 128). This bias helped to frame the NBC story because it provided no positive numbers or no hope for those who planned to attend the polls in person the following day. Size bias can impact news in huge ways, and has definitely

influenced American's views of the pandemic. With constant changing numbers and graphs swirling around the news cycle it is incredibly difficult to keep an unbiased viewpoint as a casual news consumer. This leads to creating a control fallacy distortion, or "see{ing} ourselves as helpless victim{s} of fate" (Grohl, 2019). This can be dangerous because it can dissuade political and social activism, believing that everything is out of citizen control no matter what.

Generalization Instinct:

The categories in which the media reduced people to during the pandemic alienated many whose identities are intersectional. For example, the pandemic alienated the elderly as weak and susceptible, while concern for younger people did not begin until the summer. An example of this is in "The Impact of the COVID-19 Pandemic on Older Adults", which mentions every way in which the vulnerable elderly will be harmed by COVID (Sandoui, 2020). This article and the general brushing off COVID's impact on young people is an example of human's natural tendency to put things in categories. Scientists and the American public put COVID in the category of illnesses that only affected older people, when that is simply not true and ended up hurting the younger population. Later in the summer, the entire country had to adjust it's generalizations when young people not only started contracting COVID, but suffering from it as well (Chatelain, 2020). Older people may be dying faster, but young people are suffering from the long-term consequences of contracting COVID which has been a hard adjustment for most Under-30-year-olds to make. In the article about older people, the generalization instinct is inherent in the fact that the article does not even mention those under 65 and their response to COVID. This bias is problematic because stereotypes, such as frailty in older people and the ageism that comes with that, can be formed. The generalization that the country faced in the beginning of the pandemic clearly hurt the country because young people caught COVID and

died because they didn't know it could affect them. We still view COVID, 9 months later, as something that primarily affects older people, and this is troublesome. Over-generalization is a real cognitive distortion that affects the United States every day. "In this cognitive distortion, a person comes to a general conclusion based on a single incident or a single piece of evidence" (Grohl, 2019). Basing our assumptions off early March directly killed young Americans.

Destiny Instinct:

Along with generalization bias, Destiny bias is also an assumption based upon identity (Rosling et al., 2018). Along with the elderly whom the American public are concerned about with every illness come babies and toddlers. Those under 1 year are a prime focus group of prevention when it comes to other illnesses like the flu. One would think that because babies are likely to be susceptible to other viral illnesses that COVID would be a great concern for their parents. You can see this bias in the early studies of China on COVID in February (Wei et al., 2020). They assumed that COVID would be as deadly to infants as older populations. Luckily, they were wrong (Hall, 2020). The Destiny instinct of humans is seen in the Chinese study because they recommend extreme caution with babies, as the governments did with the elderly, because they assumed that babies were just as vulnerable. It was only later that they found out babies were mysteriously resilient (Hall, 2020).

This assumption helped frame the story and ensure that babies were kept inside and isolated until further notice and further research. In this case, the influence of the instinct was good. It protected babies, though it could have perpetuated stereotypes if it had been a different scenario. This instinct in this case helped shape the pandemic in a positive way. This bias establishes expectations as cognitive distortion. If something or someone violates the "rules" in place for the identity, the dissonance is felt. This would create the "Should" distortion. "Should

statements appear as a list of ironclad rules about how every person should behave” (Grohl, 2019). This corresponds with destiny because we all have predetermined rules for each category.

Single Perspective Instinct

Not surprisingly, partisan news companies love to exaggerate one “side” of a story to suit their needs as a party. This can be considered partisan bias or the Single Perspective Instinct. As Rosling says in *Factfulness*, “we find simple ideas very attractive.... I call this preference for single causes and single solutions the single perspective instinct” (Rosling et al., 2018, 185-186). When telling one side of the story, it plays into human’s natural desire to make things the least complex that they can be. This can be represented in news articles like “Americans Worried About Coronavirus Don't Need to Buy Face Masks, US Surgeon General Says” from Fox News. Contrary to the CDC’s actions on March 1st, (“During March 1–May 31, 42 states and territories issued mandatory stay-at-home orders, affecting 2,355 (73%) of 3,233 U.S. counties” (Sunshine, 2020)), Fox News asserted that there was no need to buy or wear masks. This only represents the side of politics that was downplaying the virus. This single perspective helped to frame the story because it assured people that wearing masks was ineffective, all while the CDC was issuing stay-at-home orders. Partisan bias is everywhere. The same small story will be covered 500 times in a conservative manner and 500 times in a liberal manner. This influenced the pandemic because people who follow a conservative leaning source did and still do not have the same information as those following a liberal source. This connects with the cognitive distortion of emotional reasoning. Emotional reasoning “can be summed up by the statement, “If I feel that way, it must be true” (Grohl, 2019). This applies to how a lot of conservatives and liberals act.

Blame Instinct

The final bias covered in this paper will be Blame Bias. This bias is “the instinct to find a clear, simple reason for something bad that has happened” (Rosling et al., 2018, 206). This goes hand in hand with single perspectives. If there is someone to blame, then the answer is simple. For example, In an article by NBC the author blames America’s misinformation problem on Former President Donald Trump (Siemaszko, 2020). He references time after time when Trump has blamed everyone from the World Health Organization to China to Democrats for COVID. Both of these “blame-games” are quite dangerous. The blaming helps to frame the article to push an anti-Trump narrative, but is using exactly the same tactic that Trump uses when he spreads racism by calling COVID “the China virus” or blames China for their handling of COVID being why it spread to the entire world.

This bias creates a moral and ethical status for things that don’t necessarily deserve one. Some things that happen are just bad. Not only this, but it also allows for the abdication of responsibility for all parties. This bias certainly affected the pandemic because there are a million “faults” to go around, from the president, to the governors, to the citizens themselves. The cognitive distortion enforced by this bias is “always being right”. “When a person engages in this distortion, they are continually putting other people on trial to prove that their own opinions and actions are the absolute correct ones” (Grohl, 2019). This is dangerous, because when people can’t admit their mistakes, then problems do not get solved.

Discussion:

Each of the biases mentioned above have a cognitive distortion attached to them. These cognitive distortions are the downfall of free-thinking and democracy. With these distortions built into our media systems and the general public’s inability to decipher them, the world is a polarized, stressed, and misleading place. Critical thinking is the cornerstone of democracy.

Without critical thinking, the country will continue to be two mindless mobs yelling into empty rooms. The overall importance of critical thinking is to ensure that the problems at hand can be solved through the utilization and interpretation of the information around you. This is what is at stake in the United States right now. When we let the media, even the media productions of our own government, manipulate us into believing misleading information and false claims or teaching us to interpret information in a way that makes us mislead, then we lose all ability to have free will. The second we give our minds away, is when we too give away our voice.

Cognitive distortions hurt our reality. They convince us of things that are not the truth. The importance of using critical thinking to recognize these distortions is to learn to recognize how our media-trained mind is interpreting the information we see and to reexamine it unbiasedly. If the country can start to become media literate, then the mobs would look a little less polarized and a little more compromise might make its way into American politics. This stressed-filled, hectic, black-or-white social, emotional, and political climate in the United States can only go on for so long before we lose our ability to function. Free speech is guaranteed in the first amendment. If we lose that, who are we?

Conclusion:

In conclusion, it is extremely important to engage in the deciphering of the processes the media has implemented in the brains of United States citizens. Media Literacy needs to be integrated into school education, as young as elementary school. Free resources need to be provided for people no longer in school to learn to navigate the changing media climate, and the news media as an entity needs to be held accountable for inaccurate information spreading.

Bibliography

- Best, R., & Boice, J. (2020, November 4). *Where The Latest COVID-19 Models Think We're Headed — And Why They Disagree*. FiveThirtyEight. Retrieved November 4, 2020, from <https://projects.fivethirtyeight.com/covid-forecasts/>
- Chatelain, R. (2020, August 18). *Fauci Warns of "Troublesome" Long-Term Effects of COVID-19 in Young People*. Spectrum News 1. Retrieved November 3, 2020, from <https://spectrumnews1.com/ky/northern-ky/health/2020/08/18/fauci-warns-of--troublesome-long-term-effects-of-covid-19-in-young-people>
- Chiwaya, N., & Siemaszko, C. (2020, November 2). *Covid-19 cases, deaths rising rapidly ahead of Election Day*. NBC News. Retrieved November 3, 2020, from <https://www.nbcnews.com/news/us-news/covid-19-cases-deaths-rising-rapid-rate-ahead-election-day-n1245780>
- Gallagher, G. M. (2020, March 16). *Contagion Live News Network: Coronavirus Updates for March 16, 2020*. Contagion Live. Retrieved November 3, 2020, from <https://www.contagionlive.com/view/contagion-live-news-network-coronavirus-updates-for-march-16-2020>
- Gandhi, M. (2020, November 3). *Death rates have fallen by 18% for hospitalized COVID-19 patients as treatments improve*. The Conversation. Retrieved November 3, 2020, from <https://theconversation.com/death-rates-have-fallen-by-18-for-hospitalized-covid-19-patients-as-treatments-improve-148775>
- Gould, E., & Wilson, V. (2020, June 1). *Black workers face two of the most lethal preexisting conditions for coronavirus—racism and economic inequality*. Economic Policy Institute. Retrieved November 3, 2020, from <https://www.epi.org/publication/black-workers-covid/>
- Grohl, J. M. (2019, June 24). *15 Common Cognitive Distortions*. Psych Central. Retrieved November 3, 2020, from <https://psychcentral.com/lib/15-common-cognitive-distortions/>

- Hall, S. (2020, July 14). *Babies' Mysterious Resilience to Coronavirus Intrigues Scientists*. Scientific American. Retrieved November 3, 2020, from <https://www.scientificamerican.com/article/babies-mysterious-resilience-to-coronavirus-intrigues-scientists/>
- Powell, T., Bellin, E., & Erlich, A. (2020, June 29). *Older Adults and Covid-19: The Most Vulnerable, the Hardest Hit*. The Hastings Center Report. Retrieved November 3, 2020, from <https://onlinelibrary.wiley.com/doi/10.1002/hast.1136>
- Razzaghi, H. (2020, March 27). Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19) — United States, February 12–March 16, 2020. *Morbidity and Mortality Weekly Report*. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm>
- Rosling, H., Rosling, O., & Rosling Rönnlund, A. (2018). *Factfulness* (1st ed.). Flatiron Books. <https://read.amazon.com>
- Sandoui, A. (2020, May 19). *The impact of the COVID-19 pandemic on older adults*. Medical News Today. Retrieved November 3, 2020, from <https://www.medicalnewstoday.com/articles/the-impact-of-the-covid-19-pandemic-on-older-adults>
- Santora, T. (2020, October 8). *10 Very Good Reasons We Should All Be Afraid of COVID*. Fatherly. Retrieved November 3, 2020, from <https://www.fatherly.com/health-science/dangers-of-covid-19/>
- Siemaszko, C. (2020, October 1). *Why are Americans so confused about Covid-19? Blame Trump, Cornell study says*. NBC News. Retrieved November 3, 2020, from <https://www.nbcnews.com/news/us-news/why-are-americans-so-confused-about-covid-19-blame-trump-n1241707>
- Stimson, B. (2020, March 1). Americans worried about coronavirus don't need to buy face masks, US surgeon general says. *Fox News*.

<https://www.foxnews.com/health/americans-worried-about-coronavirus-dont-need-to-buy-face-masks-us-surgeon-general-says>

Sunshine, G. (2020, September 4). *Timing of State and Territorial COVID-19 Stay-at-Home Orders and Changes in Population Movement — United States, March 1–May 31, 2020*. Center for Disease Control and Prevention. Retrieved November 3, 2020, from <https://www.cdc.gov/mmwr/volumes/69/wr/mm6935a2.htm>

Wei, M., Yuan, J., Fu, T., Yu, X., & Zhang, Z. (2020, February 14). *Novel Coronavirus Infection in Hospitalized Infants Under 1 Year of Age in China*. *Jama Network*. Retrieved November 3, 2020, from <https://jamanetwork.com/journals/jama/fullarticle/2761659>