

An abstract, textured artwork featuring motifs from the United States flag. The composition includes horizontal stripes in shades of blue, green, and purple, and several gold stars of varying sizes. A prominent yellow diagonal stripe is visible in the upper left. The background is dark, with some areas of red and orange, suggesting a sunset or a stylized sky. The overall style is expressive and painterly.

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Cover art courtesy of the Boston College Office of University Communications. In recognition of this special issue's focus on the history of science, the cover art accompanying this issue depicts French astronomer and mathematician Pierre Simon Laplace's (1749–1827) nebular hypothesis of planetary origin—that the solar system was formed from a cloud of interstellar dust.

Oracle: The History Journal of Boston College

Volume III | Issue I

Reflections on the Past, Present, and Future of Pandemic Memory

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REFLECTIONS ON THE PAST, PRESENT, AND FUTURE OF PANDEMIC MEMORY

GUY BEINER *

On May 12, 2022, US President Joe Biden issued a proclamation ‘in memory of the one million American lives lost to COVID-19 and their loved ones left behind’, asserting that ‘as a Nation, we must not grow numb to such sorrow. To heal, we must remember.’² Yet, even as we continue to struggle with the challenges of the Coronavirus (SARS-CoV-2) in its ever-mutating contagious variants, and notwithstanding the availability of digital social media for documenting memory,³ fears are being expressed that the devastating experience of the global pandemic will not be remembered. Mark Honigsbaum, author of *The Pandemic Century: One Hundred Years of Panic, Hysteria and Hubris* (2019), has warned in a blog essay that ‘despite killing more than six million people worldwide, Covid-19 is already in danger of being forgotten.’⁴ What lessons can be learned from historical examination of remembrance of the previous major global pandemic, as showcased in the volume *Pandemic Re-Awakenings: The Forgotten and Unforgotten ‘Spanish’ Flu of 1918–1919*?⁵

In the summer of 2020, the social psychologist of memory William Hirst commented that ‘society would have been better prepared for COVID-19 if it vividly remembered the Spanish flu’.⁶ Yet, the commonplace assertion that the Great Flu, which was apparently the most lethal catastrophe in human history within a similar time frame, was simply forgotten is misleading.

¹ Guy Beiner is the Sullivan Chair of Irish Studies and a professor of history at Boston College. His newly edited volume, *Pandemic Re-Awakenings: The Forgotten and Unforgotten ‘Spanish’ Flu of 1918–1919*, is available now from Oxford University Press; https://global.oup.com/academic/product/pandemic-re-awakenings-9780192843739?facet_narrowbybinding_facet=Hardcover&lang=en&cc=us.

² ‘A Proclamation on Remembering the 1,000,000 Americans Lost to COVID-19’, Presidential Actions, The White House, May 12, 2022; <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/05/12/a-proclamation-on-remembering-the-1000000-americans-lost-to-covid-19>; last checked August 9, 2022.

³ Tracy Adams and Sara Kopelman, ‘Remembering Covid-19: Memory, Crisis, and Social Media’, *Media, Culture & Society*, 44, no. 2 (2022): pp. 266–85.

⁴ Mark Honigsbaum, ‘Drinking the Waters of Lethe’, *Going Viral*, July 24, 2022; <https://markhonigsbaum.substack.com/p/drinking-the-waters-of-lethe>; last checked August 9, 2022. Cf. Scott A. Small, ‘We Will Forget Much of the Pandemic. That’s a Good Thing.’ in *New York Times*, 9 March 2022.

⁵ Guy Beiner, ed., *Pandemic Re-Awakenings: The Forgotten and Unforgotten ‘Spanish’ Flu of 1918–1919* (Oxford and New York: Oxford University Press, 2022).

⁶ William Hirst, ‘Remembering Covid-19’, *Social Research*, 87, no. 2 (Summer 2020): p. 251.

Rather than a straightforward case of ‘collective amnesia’, *Pandemic Re-Awakenings* charts a century of dialectics between remembering and forgetting and concludes that:

This complexity can best be understood as a combination of ‘social forgetting’ and ‘cultural forgetting’, both of which entail subtle forms of remembrance. Social forgetting pivots on the dissonance between silence in the public sphere and the persistence of less prominent private and local recollections. Cultural forgetting is to be found in the marginalisation of representations that are left largely unrecognized outside the artistic and literary canons.⁷

These subtle forms of forgetting intertwined with muted memory were repeatedly countered by moments of rediscovery, as historical interest in the subject could both wane and wax.

The French historian of public health Patrick Zylberman perceptively observed that ‘almost every epidemic revives memories of past outbreaks. It bolsters our hunt for historical analogies’ and asserted that ‘it takes a new epidemic – not a new history book – to reawaken memories of past epidemics sleeping in the collective, family and individual memory.’⁸ While the past twenty years have seen a growing preoccupation with the history of pandemics in general, and with the Great Flu of 1918-1919 in particular,⁹ this new-found interest exponentially increased following the outbreak of the current global pandemic, effectively facilitating a historiographical boom on the subject.

The impact of COVID-19 as a catalyst for rediscovery and a stimulant of new interdisciplinary research on pandemic history and memory is evident in the essays of this *Oracle* issue. Kate Kemp finds parallels between the popular turn to superstition and folk remedies in 1918 – in consequence of modern medicine’s perceived helplessness in face of the ‘Spanish’ Flu – and resistance to vaccines and the demand for questionable alternative cures in 2020. Similarly, Maeve Pinheiro compares between the ‘anti-mask’ movement launched in San Francisco in 1919 and politicized opposition to mask mandates in contemporary America. By contrast, Emily Kaderabek proposes that in New Zealand remembrance of the failures of public medicine during the ‘Spanish’ Flu resulted in better-informed pandemic preparedness, evident in the commendable local response to COVID-19. Louis Gleason suggests that new satellite technologies can improve

⁷ Guy Beiner, ‘Rediscovering the Great Flu between Pre-Forgetting and Post-Forgetting’, in *Pandemic Re-Awakenings: The Forgotten and Unforgotten ‘Spanish’ Flu of 1918–1919*, edited by Guy Beiner (Oxford and New York: Oxford University Press, 2022), p. 346.

⁸ Patrick Zylberman, ‘Influenza Epidemics and the Politics of Historical Analogy’, in *Influenza and Public Health: Learning from Past Pandemics*, edited by Tamara Giles-Vernick, Susan Craddock and Jennifer Lee Gunn (London and Washington, DC: Earthscan, 2010), pp. 85-6.

⁹ See Guy Beiner, ‘Out in the Cold and Back: New-Found Interest in the Great Flu’, *Cultural and Social History*, 3, no. 4 (2006): pp. 496-505; Howard Phillips, ‘The Recent Wave of ‘Spanish’ Flu Historiography’, *Social History of Medicine*, 27, no. 4 (November 2014): pp. 789-808.

global surveillance of the spread and impact of pandemics (partially compensating for dearth of statistics in under-developed regions) and provide data for more inclusive remembrance. In all these essays, there is a constructive dialogue between the past and the present with an eye to the future, as critical assessments of recent encounters with the Coronavirus pandemic facilitate new perspectives for re-engaging with the memory of the ‘Spanish’ Flu pandemic.

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Article 1

Pandemic Revelations: How New Zealand Learned from its 1918 Shortfalls to Adapt to COVID-19

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PANDEMIC REVELATIONS:

HOW NEW ZEALAND LEARNED FROM ITS 1918 SHORTFALLS TO ADAPT TO COVID-19

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Abstract: As the COVID-19 pandemic swept the globe in early 2020, rapid comparisons were made between the modern pandemic and the Spanish Flu pandemic of 1918-1919. However, up until this point, the Spanish Flu had rarely been mentioned through mainstream sources, and public knowledge was limited. One country, New Zealand, had a much more prominent dedication to remembrance of the early pandemic, and as a result, was more prepared to successfully eliminate the COVID-19 virus from its shores during its waxing days. New Zealand's reaction to the Spanish Flu in 1918 was anything but successful, as it was plagued with political conspiracy and disparities that greatly affected the indigenous population. However, following this disastrous response, New Zealand devoted itself to remembering its shortfalls, and consistently implemented new public health measures, including a pandemic preparedness plan, over the course of the next century. During the onset of COVID-19, the preparedness that resulted from New Zealand's commitment to remembrance would place the nation at the global forefront of comprehensive, equitable public health.

Introduction

From 1918-1919, millions were killed with no regard for their race, religion, or social status. Young men and women ages 15-35 were particularly impacted, putting families in a precarious position. This terrible course of events was the result of a pandemic that would come to be known as “A Disease Deadlier than War.”² Final death toll estimates have increased substantially in the century since this pandemic ravaged the globe, with current mortality rates ranging from 50 to 100 million lives lost.³ While theories of the pandemic's emergence range from

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² Geoffrey Rice. “A Disease Deadlier Than War.” *The New Zealand Medical Journal*, no. 1378 (2013): 1. <http://journal.nzma.org.nz/journal/126-1378/5738/>.

³ Niall P.A.S. Johnson and Juergen Mueller. “Updating the Accounts: Global Mortality of the 1918-1920 ‘Spanish’ Influenza Pandemic.” *Bulletin of the History of Medicine* 76, no. 1 (2002): 115 doi:10.1353/bhm.2002.0022.

military camps in Haskell, Kansas, to French origins in Étaples, to Chinese laborers, the global impact that it has had since its mysterious inception is undeniable.⁴ The pandemic wiped out families, orphaned children, and left medical practitioners speechless as they fumbled for any sort of effective treatment, let alone a cure. This truly seemed like a pandemic that would never be forgotten. And yet, for many, it was; so much so that historian Alfred Crosby Jr. nicknamed it the “Forgotten Pandemic.”⁵

That is, until March 2020. With the emergence of COVID-19, interest in the 1918 ‘Spanish’ Flu skyrocketed as people tried to make sense of a world thrown into a new pandemic.⁶ As connections were increasingly drawn between the two harrowing diseases, countries began to receive great deals of praise, or criticism, depending on their pandemic preparedness plan. One nation stands out as an exemplar of COVID readiness: New Zealand. While other countries struggled with hospital overcrowding and limited medical resources, by June 2020 New Zealand had declared the virus effectively eliminated. While this status may not have lasted, it was nonetheless an impressive feat for an entire nation to be safeguarded through the adoption of stringent quarantine and travel restrictions.⁷ However, in 1918, this was not the case. With limited public health infrastructure and conflicting plans for quarantine implementation, the government struggled to contain the spread of the disease, leaving nearly 9,000 citizens dead in its wake. What did New Zealand learn from its triumphs and shortfalls during the 1918 ‘Spanish Flu’ pandemic, and what does the rest of the world have to learn from the progress they have made?

New Zealand 1918 — Flu Hotspot

Given its global isolation as an island nation, New Zealand was relatively shielded from the full force of the Spanish Flu pandemic during its first wave, in the spring of 1918. There was, however, no avoiding the second wave, which occurred the following fall. Some of the earliest cases of flu were recorded in early October, and just two weeks later, Auckland, New Zealand’s largest city, was effectively shut down. Despite its rapid spread, the flu was not considered a

⁴ Mark Osborne Humphries, “Paths of Infection: The First World War and the Origins of the 1918 Influenza Pandemic,” *War in History*, 21, no. 1 (2014): 55-81.

⁵ Alfred W. Crosby, Jr., “Flu and the Paris Peace Conference” in *America’s Forgotten Pandemic: The Influenza of 1918* (Cambridge University Press, 2003; 2nd. ed.), 171-200.

⁶ Data Source: Google Trends. “Spanish Flu.” trends.google.com/trends/explore?geo=US&q=spanish%20flu.

⁷ Damien Cave, “New Zealand Lifts Lockdown as It Declares Virus Eliminated, for Now,” *The New York Times* (New York, NY), Jun. 8, 2020.

notifiable disease until November 6, meaning that few emergency public health measures had been taken before that point, and by then the virus had already started to run rampant. Whatever efforts that had been made to enforce quarantine proved futile, as on November 8th a misleading telegram reached New Zealand, preemptively declaring an armistice announcing a German surrender and the end of World War 1. Creating a superspreader event that would come to be called the ‘False Armistice,’ it is no surprise that the highest mortality was recorded in Auckland on November 12, just days after the false alarm had compelled citizens to celebrate in massive crowds and gatherings in the streets. The end of the war imposed additional challenges on medical professionals and public health practitioners. Nearly one-third of them were overseas assisting the war effort, leaving the homefront with limited personnel. Of those that remained, fourteen doctors and thirty-seven nurses would succumb to the virus.⁸

In terms of public health, New Zealand’s indigenous population, the Māori, were devastatingly underserved and ignored. Many of their deaths were not adequately recorded, meaning that they were not included in the nation’s mortality rate until later research was conducted. Even today the country’s pandemic death toll may be understated, as the exact cause of death for many Māori will never be known with certainty. When reviewing the death registers in the 1980s, historian Geoffrey Rice discovered nearly 500 additional Māori deaths that had been previously unaccounted for. Without knowing the scope of the devastation that impacted the Māori population, limited medical resources were allotted to them at the time, leading to a total mortality that reached 1,679, several hundred more than originally recorded.⁹ In comparison to the white, European majority, known as the Pākehā, the Māori mortality yielded a death rate of 42.3 per 1000, nearly seven times the mortality of the Pākehā (5.8 per 1000).¹⁰ New Zealand did not just fail its citizens medically, it failed them socially as well, with a disturbing trend of national leaders leaving their indigenous populations particularly ill-prepared to face a pandemic.

⁸ Geoffrey, Rice. “Chapter 4: Organising Support as the Flu Spreads” in *Black Flu 1918: The Story of New Zealand's Worst Public Health Disaster*. (Christchurch, New Zealand: University of Canterbury, 2017) 38.

⁹ Geoffrey Rice. “Remembering 1918: Why Did Māori Suffer More Than Seven Times the Death Rate of Non-Māori New Zealanders in the 1918 Influenza Pandemic?” *New Zealand Journal of History*, no. 53 (2019): 91.

¹⁰ Geoffrey Rice. “Remembering 1918: Why Did Māori Suffer More Than Seven Times the Death Rate of Non-Māori New Zealanders in the 1918 Influenza Pandemic?” *New Zealand Journal of History*, no. 53 (2019): 91

Collective Forgetting

Given the catastrophic handling of this nationwide crisis, it seems surprising that the Spanish flu was largely left out of New Zealand's collective memory for decades following the pandemic's end. One common explanation for why the world was so apt to put the pandemic out of its mind was the recent armistice that had left the victorious nations with reason to celebrate and look forward to the long-awaited return of their servicemen. While those on the homefront were prepared to commemorate the heroic soldiers that lost their lives valiantly in battle, the remembrance for those who succumbed to the Spanish flu was less extravagant. This consideration is admittedly a bit surprising, as approximately 5.1% of all New Zealand Expeditionary Force (NZEF) deaths were due to influenza.¹¹ Yet, despite this high number of casualties, only ten public memorials were constructed for influenza victims of the war, overshadowed by the 940 memorials built for those who died in combat.¹² Although it is a bit of a shameful assumption to make, it would seem that flu deaths were simply not considered as valiant or noble as those that came on the battlefield. As such, their lives and memory were not rightly commemorated nor memorialized in the otherwise celebratory postwar period.

On the other hand, some forgetting was not a situational result of the war, but was rather imposed, as was the case with Māori tribes. The pandemic saw the tribes' rich tradition of oral history snuffed out, both through the deaths of elders as well as through governmental restrictions. The death rate among the Māori was devastatingly high compared to that of the Pākehā population, and the deaths of many elders and other tribal leaders left the Māori with diminished avenues for the sharing of their oral traditions and history.¹³ As if losing their leaders were not enough, Pākehā restrictions placed upon the Māori during the height of the pandemic in New Zealand led to a lack of closure and few opportunities to honor their dead respectfully. A ban on tangi (Māori funerals) as well as travel to and from Māori land (without similar bans on European travel or funerals) led

¹¹ Geoffrey Rice. "A Disease Deadlier Than War." *The New Zealand Medical Journal*, no. 1378 (2013): <http://journal.nzma.org.nz/journal/126-1378/5738/>.

¹² Geoffrey Rice. "'The Fell Plague of Last Year': Remembering and Forgetting the 1918 Influenza Pandemic in New Zealand" in *Pandemic Re-Awakenings: The Forgotten and Unforgotten 'Spanish' Flu of 1918-1919*. Ed. Guy Beiner (Oxford: Oxford University Press, 2022), 178.

¹³ Geoffrey Rice. "'The Fell Plague of Last Year': Remembering and Forgetting the 1918 Influenza Pandemic in New Zealand" in *Pandemic Re-Awakenings: The Forgotten and Unforgotten 'Spanish' Flu of 1918-1919*. Ed. Guy Beiner (Oxford: Oxford University Press, 2022), 171.

to isolation of the community, and possibly contributed to their fatalist outlook on the pandemic. Despite these challenging disruptions to their grieving process, the Māori still found ways to remember the harrowing event, as well as those who died of the flu. They would later go on to mark subsequent events as those that occurred “before the bad flu” or “after that Black Flu.” The Māori people also took it upon themselves to build memorials to their dead, and there are six such memorials that they used to retain the memory of those who had passed, although those memorials are on private land and were not readily accessible to the public.¹⁴ The Māori largely fought the pandemic on their own, so it is fitting that they would go on to remember it privately as well.

Remembrance

So then why did memory of the pandemic live on for some New Zealanders, despite the nationwide lack of official commemoration? One possible theory is the dramatic situation surrounding the docking of the RMS *Niagara* during the early days of the pandemic, which some New Zealanders, and many politicians, believed was the reason influenza came ashore in 1918 in the first place. On October 12, 1918, the *Niagara* docked in Auckland, with then Prime Minister William Ferguson Massey, and Minister of Finance Sir Joseph Ward both on board. The ship made stops in San Francisco, Honolulu, and Suva on its trip from Vancouver to Auckland, and during its journey there were several flu cases reported, though it remains unclear if these were cases of the common flu or the novel “Spanish” variety at the root of the pandemic. Two doubters in particular just so happened to be the Minister of Health, George Warren Russell, and the Health Department’s public health expert, Dr. Robert Mackgill. Considering that influenza was not a notifiable disease at the time of the ship’s docking, the duo made the ultimate decision not to quarantine the passengers, allowing them to return home to their families, possibly bringing the flu with them. Despite the dramatic nature of the situation, it is unlikely that this is how the Spanish Flu reached New Zealand. However, a much more likely explanation for the arrival of the flu in New Zealand is two troopships that docked in early October with at least 80 confirmed cases of flu onboard. This tale, however, does not carry the same level of drama as that of the *Niagara*, and

¹⁴ Geoffrey Rice. “‘The Fell Plague of Last Year’: Remembering and Forgetting the 1918 Influenza Pandemic in New Zealand” in *Pandemic Re-Awakenings: The Forgotten and Unforgotten ‘Spanish’ Flu of 1918-1919*. Ed. Guy Beiner (Oxford: Oxford University Press, 2022), 171-178.

thus often goes unremembered.¹⁵ Citizens were also hesitant to place the blame on heroic soldiers who had just returned home from war. Despite its controversy, or perhaps because of it, the case of the *Niagara* remained in the minds of New Zealanders and researchers alike for many years after the pandemic had passed. In fact, as recently as 2005 there was still controversy regarding the *Niagara* and publications still contest that the *Niagara* was the primary factor in the introduction and spread of the ‘Spanish’ flu in New Zealand.¹⁶ While it appears unlikely that the flu actually arrived on the *Niagara* in the fall of 1918, the combination of political commentary as well as the public’s hesitation at accusing veterans of bringing the virus home made the case of the *Niagara* remain a scapegoat in public memory for generations.

Although few memorials were constructed to commemorate those who fell to influenza in the wake of The Great War, those memorials that do exist serve as prominent reminders of the challenges that New Zealand faced as a nation from 1918-1919. In a study conducted by researcher Nick Wilson and his colleagues, twelve publicly accessible memorials relating to the 1918 pandemic exist in New Zealand as of 2017, with one of them designated as a national memorial.¹⁷ These twelve memorials, while modest in number, represent a significant commitment to commemoration of the Spanish Flu in contrast with the United States. A 2020 *New York Times* article titled “Why Are There No Memorials to the Flu of 1918?” chronicles the efforts of American Brian Zecchinelli to commemorate his grandfather, Geronimo, among others who died during the pandemic.¹⁸ Located in Barre, Vermont, the stone bench is one of only a handful of memorials, roughly eight, that honor the 1918 flu victims within the United States.¹⁹ While both of these numbers are low when considering the mass casualties that the pandemic inflicted upon the citizens of both countries, New Zealanders statistically have a much better chance at an encounter with this history than Americans. After all, twelve memorials for a population of 5.084 million is far more impactful than eight memorials for a population of over 320 million.

¹⁵ Geoffrey Rice. “Chapter 3: “The Flu Reaches New Zealand” in *Black Flu 1918: The Story of New Zealand's Worst Public Health Disaster*. (Christchurch, New Zealand: University of Canterbury, 2017) 25-28.

¹⁶ Wayne, Bradshaw. "Learning the Lessons of the 1918 Spanish Influenza Epidemic" *Kai Tiaki: Nursing New Zealand*, 11 no. 10 (2005): 22-23.

¹⁷ Nick Wilson, et al. “Remembering the 1918 Influenza Pandemic: National Survey of Memorials and Scope for Enhancing Educational Value around Pandemic Preparedness.” *The New Zealand Medical Journal* no. (2017): 58.

¹⁸ Segal, David. “Why Are There Almost No Memorials to the Flu of 1918?” *The New York Times* (New York, NY). May 14, 2020.

¹⁹ Zachary Small. “Hardly Any 1918 Flu Memorials Exist. Will We Remember COVID-19 Differently?” *NPR* (Washington DC.) Dec. 8, 2020.

Pandemic Preparedness

In order to understand how lessons learned from past pandemics can assist in averting future public health crises, it is essential to examine the impact that the Spanish Flu of 1918 had on the adaptation and advancement of New Zealand's overall pandemic preparedness. In the context of COVID-19, New Zealand seemed to present itself as the gold standard for pandemic readiness. In June 2020, while the rest of the world was scrambling to create plans that did not seem to be producing adequate results, New Zealand was taking swift and highly successful protective action. By June 2020, just a few short months after COVID-19 was designated as a pandemic, New Zealand declared the virus effectively eliminated, as restaurants reopened and wedding events went on as planned.²⁰ This success is largely attributed to the nation's stringent lockdown measures, a plan called "go hard, go early" by Prime Minister Jacinda Ardern. So how then did New Zealand go from too little, too late, to go hard, go early? Their adaptation and preparation stems from a combination of remembrance, acknowledgement of past failings, and a drive to ensure that previous damage would not be repeated.

Reflecting on New Zealand's adapted pandemic strategies in response to COVID-19, historian Geoffrey Rice lauds that "one of the big lessons of 1918 had been applied: respond quickly or it will run away out of control."²¹ Having faced original modeled predictions of anywhere from 8,000 to 14,000 deaths without further preventative action, New Zealand has endured over two years of COVID-19 with only a mere 713 deaths as of May 2, 2022, a far cry from the predicted mortality.²² New Zealand's COVID-19 response took a note from its most notable pandemic preparedness plan, the *New Zealand Influenza Pandemic Plan*. Updated in 2017, the plan explicitly mentions the 1918 pandemic 16 times throughout the text, making sure that the foundations of the plan are rooted in a conscious examination of past failings and successes.²³ This plan also includes specific regiments and recommendations for the Māori populations, highlighting New Zealand's commitment to closing the gap within healthcare access and ensuring that no community will be left behind should a pandemic strike once more. Also included in the text are

²⁰ Damien Cave. "New Zealand Lifts Lockdown as It Declares Virus Eliminated, for Now," *The New York Times* (New York, NY), Jun. 8, 2020.

²¹ Geoffrey Rice. "Here We Go Again? A New Pandemic of the 21st Century." in *The New Zealand Medical Journal*. no.1512 (2020): 8.

²² Rice. "Here We Go Again?" p.9.

²³ New Zealand Ministry of Health. *New Zealand Influenza Pandemic Plan: A Framework for Action*, Wellington, NZ. 2017.

case studies modeled off of the public’s experience with the 1918 pandemic and outlines of scenarios that could occur in crowded, urban settings accompanied by recommended preparation efforts.

Prior to the release of the 2017 plan, an emphasis on Māori health was again referenced in the context of 1918 with the publication of “Getting Through Together: Ethical Values for a Pandemic” by the National Ethics Advisory Committee. This text references the 1918 pandemic specifically as it related to its impact on the indigenous population, detailing possible comorbidities as well as socioeconomic considerations that may cause indigenous populations to be more susceptible to illness in a pandemic.²⁴ The plan emphasizes that pandemic preparedness must be intersectional in order to be complete. It details the disparities that the Māori endured in 1918 and acknowledges that pandemics are as much of a social crisis as they are a medical one. It is this inclusive and culturally informed approach to pandemic care that has helped New Zealand to close the gap and eliminate unnecessary Māori deaths due to improper care or lack of treatment access.²⁵

Whether it be due to politicization, memorialization, or an effort to atone for a disastrous pandemic response, the 1918 pandemic has remained in the memories of New Zealanders for over a century. In 2020, New Zealand evidenced on a global stage the value of pandemic memory within medical, governmental, and social spheres. Most of all, New Zealand demonstrated that simply remembering is not enough. The action taken in response to those recollections is what truly counts and makes a difference. Now that we have the resources, it is imperative that we, like New Zealand, heed that warning, learn from our past public health successes, and failures, and not take the medical knowledge that was so sorely won for granted.

²⁴ New Zealand Ministry of Health. *New Zealand Influenza Pandemic Plan*. p. 38.

²⁵ Ministry of Health, “COVID-19 Case Demographics”; <https://www.health.govt.nz/covid-19-novel-coronavirus/covid-19-data-and-statistics/covid-19-case-demographics>. Last date accessed 2 May, 2022.

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Preparedness.” *The New Zealand Medical Journal* no.1465 (2017): 58.

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Article 2

**Modern Mistrust of Medicine: The Re-Emergence of Folk Remedies in the
1918 Pandemic**

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MODERN MISTRUST OF MEDICINE:

THE RE-EMERGENCE OF FOLK REMEDIES IN THE 1918 PANDEMIC

KATE KEMP *

Abstract: This paper explores the history of remedies that arose to cure and prevent the ‘Spanish’ Flu of 1918-1919, focusing on alternative medicines and folk remedies. It connects ancient Jewish traditions, medieval scientific practices, communal wisdom, and superstitious signs as all ways people combated their fear of the mysterious disease that killed over 50 million people and baffled scientists. This paper examines what about the ‘Spanish’ Flu allowed alternative methods of dealing with plague to flourish at the beginning of the twentieth century. Through revealing ancient reactions to plague at the formation of modernity, we can also better understand continued mistrust of medicine within the 2020 pandemic.

It was the beginning of the modern age. Technological weapons ravaged the Western Front, killing in unmatched waves. Allopathic medicine had become mainstream and germ theory had advanced. By the opening of the twentieth century, scientists predicted the Great War would be the first truly modern war in which the killing power of man and machine would rise above the fatality of disease. By November 1918, the war was winding down, with over nine million soldiers killed, including over one hundred thousand US troops. Simultaneously, in New York City on November 4, a *shvartze khasene*—an ancient Jewish ritual nicknamed a ‘black wedding’—was revived in Mount Hebron Cemetery.² Over two thousand people gathered to watch a rabbi forcibly marry two strangers in the graveyard. The bride and groom would have been chosen among the most marginalized, such as beggars or orphans. In Philadelphia, Winnipeg, Manitoba, and several parts of Eastern Europe similar ceremonies took place, despite the tradition being dormant for decades, and in some cases, heavily protested against as a, “pagan and even blasphemous practice.”³ It was not the new war that frightened the thousands of people in Mount Hebron

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² Steve Bell, “When a Cemetery Wedding Was Used to End the Spanish Flu,” *The New York Times*, June 13, 2020, <https://www.nytimes.com/2020/06/13/nyregion/spanish-flu-coronavirus-black-wedding.html>.

³ Laura Spinney, *Pale Rider: The Spanish Flu of 1918 and How It Changed the World* (New York, 2017), 131.

Cemetery, though. The ritual was revived to combat something old that was rising up, a plague that would take millions of more lives than the Great War, a disease that modern medicine was helpless against—the flu.

This disease, known as the ‘Spanish’ flu, emerged in spring of 1918, rose up for a second deadly wave in fall of 1918, coinciding with Armistice Day, and returned for a third wave in early spring of 1919. The disease was unimaginably violent and quick, with over fifty million dead worldwide and tales circulating of people going to work in the morning and by night, they were dead. Science was helpless in the face of such devastating death and had no cure for victims of the ‘Spanish’ Flu other than good nursing and bed rest, which many marginalized communities did not have access to. The scale, violence, and novelty of the 1918 ‘Spanish’ influenza in the face of modern medicine’s failure instigated a widespread resurgence of folk cures and mobilization of ancient knowledge—demonstrating people’s connection to the past amidst the creation of modernity.

The ‘Spanish’ flu was unmatched in its rapidity and fatality, but people in the early twentieth century were not strangers to disease. There had been violent epidemics in recent memory—such as the 1906-1907 ‘Typhoid Mary’ epidemic in New York or the ‘Russian Flu’ pandemic in 1889-1890. In comparison to smallpox, which leaves lasting scars, or polio, which can leave people handicapped for life, influenza was not a feared disease. Flu was often thought of as the common cold and with no lasting physical defect; it was not, “a disease lodged in folk memory as a subject of terror.”⁴ Physicians at the beginning of the twentieth century, therefore, “underestimated the dangers of influenza and trained [their] sights on eradicating other epidemic diseases,” leaving the flu free to flourish.⁵

By the early 1700s, Anthonie van Leeuwenhoek had established microbiology as a field of study and by the late 1800s Robert Koch had founded the field of bacteriology, establishing criteria for linking microorganisms to known diseases such as tuberculosis and cholera. Scientists were confident in their identification of germs as causing disease and, “by 1918, [conventional medicine] was indisputably mainstream.”⁶ However, viruses, which cause influenza, are almost

⁴ Alfred Crosby, *America’s Forgotten Pandemic: The Influenza of 1918*, 2nd ed. (Cambridge and New York, 2003), 321.

⁵ Guy Beiner, ed., *Pandemic Re-Awakenings: The Forgotten and Unforgotten “Spanish” Flu of 1918-1919* (Oxford, 2022), 355.

⁶ Spinney, *Pale Rider*, 121.

twenty times smaller than bacteria and cannot be seen under a standard optical microscope. The influenza virus was not even isolated until 1931 by American virologist Richard Shope, and it was not until 1933 that scientists realized influenza spread through airborne droplets. Although doctors in 1918 frantically searched for a cause of the flu, it was invisible to their eyes.

With the medical community unsure of the cause or spread of the flu, in just over a year the disease ravaged the entire world, infecting one-third of the global population.⁷ Many doctors recall feeling not only despair in the face of global suffering, but also burning shame at the uselessness of science. A red herring came in the form of Pfeiffer's bacillus, a bacterium often found in the human throat. Doctors in 1918 commonly found it present in many victims of the flu—but not all. Despite the variability of Pfeiffer's bacillus' presence, it was widely believed to be the cause of the Flu. Researchers across the world set upon defeating the bacterium, while the influenza virus continued to flourish. Public health officials encouraged pain relief, often in the form of aspirin, isolation, bed rest, ventilation, and protection from chills, but did not have any effective cures for the disease itself, only for the flu's symptoms. Although physicians tried to reassure the public they had control of the disease, "and described their abilities in opposition to the superstitions of the past... such claims rang hollow for some during the crisis."⁸

Within medicine, some ancient practices were revived to combat this mysterious disease. The unique violence of the 'Spanish' flu was incomprehensible to many who believed they were living in the modern era but found that this pandemic could not be understood in modern terms. In newspapers, literature, and personal recollections, people constantly referred to the disease as a plague from the Middle Ages, harkening back to the Black Death. Personal testimonies from Australian elderly people in the 1990s revealed they "were still prone to 'misremembering' the 1919 epidemic as bubonic plague."⁹ The 'Spanish' flu was clearly distinct from the epidemics in recent memory and dismantled all construction of the twentieth century as one immune to the troubles of the past.

The disease could not be situated in modern terms, and instead revived memories of plagues from ancient times. It is then fascinating that there was a small revival of bloodletting after

⁷ Jeffery K Taubenberger and David M Morens, "1918 Influenza: The Mother of All Pandemics," *Emerging Infectious Diseases* 12, no. 1 (2006): 15.

⁸ Nancy K. Bristow, *American Pandemic: The Lost Worlds of the 1918 Influenza Epidemic* (Oxford and New York, 2012), 232.

⁹ Beiner, *Pandemic Re-Awakenings: The Forgotten and Unforgotten "Spanish" Flu of 1918-1919*, 10.

observation, “that some patients seemed to take a turn for the better following a gushing nosebleed, menstruation, [or] even—traumatically—miscarriage.”¹⁰ Bloodletting was a common practice in the Middle Ages, but had died out with the rise of allopathic medicine. The ancient method did not aid victims of the ‘Spanish’ flu any more than other false vaccines or disinfectants, but the practice brought comfort to the suffering and the placebo effect these treatments had on patients and their loved ones cannot be understated.

With no concrete cure for influenza, care from nurses was recognized as the greatest chance of survival, as good bed rest and attention to needs were the only treatment sure to aid the suffering. However, many communities across the world did not have access to the sparse and overwhelmed medical personnel, and instead relied on past methods of dealing with plague: “the ministrations of family members and neighbours, patent medicines, potions, herbs, local collective ‘wisdom’ and religious beliefs that offered prophylactics, and prayers.”¹¹ With medical professionals not always available and no known cure, people were forced to search for solace elsewhere.

Family and community members commonly were the only nurses to victims of the flu and they, with no other options, fell back on folk and communal cures. A personal testimony in 1972 from Mr. Reinbach, a resident of South Africa, states: “I remember one reasonable man... telling me if you don’t want the flu chew garlick [sic.] and wear some around your neck. Being young I turned his suggestion down but... he went right through that horrible period without any ill effects.”¹² This recollection demonstrates the continued belief in the strength of folk remedies such as garlic, compared to the “influenza mixture” given by doctors to their patients. Globally, food supplements such as garlic, onions, ginger, lemons, and other herbs were recognized by alternative practitioners and community members as protections against the flu.

Another personal testimony collected by Geoffrey Rice from New Zealand recalls: “There were no doctors, chemists, or antibodies, just a bottle of brandy and lots of aspirins, and the use of our own judgment.”¹³ Aspirin was a trusted medicine for fighting fevers, and therefore “became a

¹⁰ Spinney, *Pale Rider*, 123.

¹¹ David Killingray, “Pandemic Death, Response and Memory in Non-European Societies,” in *Pandemic Re-Awakenings: The Forgotten and Unforgotten “Spanish” Flu of 1918-1919*, ed. Guy Beiner (Oxford University Press, 2022), 64.

¹² Howard Phillips, *In a Time of Plague: Memories of the “Spanish” Flu Epidemic of 1918 in South Africa* (Cape Town, 2018), 74.

¹³ Geoffrey Rice, *That Terrible Time: Eye-Witness Accounts of the 1918 Influenza Pandemic in New Zealand* (Christchurch, New Zealand, 2018), 60.

central drug in the battle against Spanish flu.”¹⁴ Globally, common people and doctors also relied on alcoholic drinks as an aid for flu. Although in modern times alcohol would be considered a folk remedy, it was prescribed by doctors and common people alike to battle the flu. In December 1918, “whiskey... was available on prescription in the UK,” and in the United States there are multiple reports of confiscated whiskey, from prohibition efforts, being donated to hospitals to fight ‘Spanish’ flu.¹⁵

Publicly, as well as interpersonally, alternative cures to the Flu were popularized. While folk remedies previously were administered as mostly communal wisdom, during the ‘Spanish’ flu there was an abundance of unauthorized cures being advertised in newspapers and shops, particularly in the United States. With the failure of medical professionals to provide solace, there was a strong demand for alternative medicines. One advertisement from J. W. Gardocky in 1918 proclaimed: “Eat More Onions: One of the Best Preventatives for Influenza.”¹⁶ There was likewise an abundant promotion of disinfectants for the throat and chrome ventilation machines that provided clean air. While in the United States, “commercial companies peddled a host of questionable remedies,” many still, “preferred to fall back on...folk cures and treatments, a good number of which involved the consumption of alcohol.”¹⁷ As mentioned previously, alcohol was prescribed both medically and communally, as well as both a preventative and therapeutic cure. The belief in the healing power of alcohol was encouraged by liquor dealers—especially as the prohibition movement gained traction.

As folk remedies gained popularity in this twentieth-century plague, superstitious signs and ancient explanations of the flu grew to fill the void of medical understanding of influenza. Previous plagues were, “considered acts of God... but with the advent of germ theory, scientists realized that they could, in principle, prevent them.”¹⁸ Despite advances in science, the ‘Spanish’ flu demonstrated the limits of modernity and the persistence of ancient responses to disease. Richard Collier’s book *The Plague of the Spanish Lady*, which compiles multiple personal testimonies collected fifty years after the pandemic, exposes multiple recollections of superstitious events preceding the pandemic—such as statues crying, roses dying, and swarms of owls.¹⁹ As

¹⁴ Harald Salfellner, *The Spanish Flu: A Story of the 1918 Pandemic* (Prague: Vitalis Verlag, 2018), 78.

¹⁵ “Hospitals Given Supply Of Whiskey,” *Seattle Daily Times*, November 1, 1918.

¹⁶ Salfellner, *The Spanish Flu*, 27.

¹⁷ Beiner, *Pandemic Re-Awakenings: The Forgotten and Unforgotten “Spanish” Flu of 1918-1919*, 13.

¹⁸ Spinney, *Pale Rider*, 292.

¹⁹ Richard Collier, *The Plague of the Spanish Lady: The Influenza Pandemic of 1918-1919* (New York, 1974), 30.

Laura Spinney aptly notes in *Pale Rider: The Spanish Flu of 1918 and How it Changed the World*: “Fear makes people vigilant.”²⁰ Not only was the origin of ‘Spanish’ flu unknown, but many doubted if the disease even was a flu, or something more sinister. Science was not providing answers for the mysterious disease sweeping the world, and that fear revealed itself through superstitious events.

With so much unexplained, it is not surprising that people filled in the gaps with supernatural explanations, or even modern folk stories. The ‘Spanish’ flu was often referenced as a plague out of the Middle Ages, but it could also be situated in a highly modern context: biowarfare. In newspapers across the United States, and even referenced in Katherine Anne Porter’s 1939 semi-autobiographical novella *Pale Horse, Pale Rider*, people speculated that the flu was a weapon sent by Germans to attack the American population. There was a similar theory in Europe that the flu, “was caused by noxious vapours rising from the cadavers left behind on the killing fields,” which harkens back to the miasma theory from the Black Death.²¹ The popularity of these theories connecting the flu to the evil of the war demonstrates ancient fears during a modern plague.

Superstitious fears further manifested in popular representations of the disease. The cover of *Pandemics Re-Awakenings: The Forgotten and Unforgotten ‘Spanish’ Flu of 1918-1919*, edited by Guy Beiner, features a German illustration of plague as a monstrous Spanish lady, with a hidden face and animal feet. Two of the most popular portrayals of the flu in political cartoons and other representations were as a monstrous woman or as a skeleton bringing death. This is a sharp contrast from the pandemic just over a century after ‘Spanish’ flu, COVID-19, where the most common representation of the disease is a red spiky ball—an actual image of the virus. The mysteriousness surrounding the influenza in 1918 allowed for supernatural depictions of the plague to flourish and for the construction of a popular folk legend.

Just as there was a resurgence in folk remedies and ancient ways of looking at plagues in 1918 and 1919, there was an increase in interest concerning the ‘Spanish’ flu during the 2020 COVID-19 pandemic. In both cases, people believed themselves to be in modern eras where science triumphed over plague. When unconquerable diseases spread, people had to orient themselves in past understandings to make sense of their current pandemic. During the COVID-

²⁰ Spinney, *Pale Rider*, 75.

²¹ Spinney, *Pale Rider*, 75.

19 pandemic, folk remedies had not reemerged as strongly as they did in 1918, but there has been similar mistrust of medicine that can be seen through reluctance to get the COVID-19 vaccine, alternative “miracle” drugs, and even President Donald Trump suggesting in a White House briefing on April 23, 2020 that scientists look into injecting disinfectant or “the heat and the light” as a potential cure for Covid-19.²² This continued mistrust is striking because, unlike in 1918, scientists in 2020 did produce an effective preventative medicine, yet people in the age of COVID-19 still experienced a draw towards alternative cures, as in 1918. Pandemics continually force both the public and private to reorient themselves through past knowledge of pandemics and questioning of medical authority.

The twentieth century is considered the opening of the modern age, yet the global havoc caused by the ‘Spanish’ Flu in 1918 demonstrates that, both personally and publicly, people were not satisfied with modernity’s answers. The popularity of folk cures and superstitions can certainly be traced to the failure of medicine, as communal knowledge surged to replace science’s lack of answers. However, ancient reactions to the disease further reveal people’s persistent connections to the past. Despite recent epidemics, the ‘Spanish’ flu was viewed as unique, both through its violence and science’s powerlessness, and therefore had to be oriented through memories of folk traditions regarding plague.

²² Katie Rogers et al., “Trump’s Suggestion That Disinfectants Could Be Used to Treat Coronavirus Prompts Aggressive Pushback,” April 24, 2020, <https://www.nytimes.com/2020/04/24/us/politics/trump-inject-disinfectant-bleach-coronavirus.html>.

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Article 3

As Seen From Space: Tele-Epidemiological Data as Pandemic Memory

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AS SEEN FROM SPACE:

TELE-EPIDEMIOLOGICAL DATA AS PANDEMIC MEMORY

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Abstract: In the modern world, data is instrumental in historical storytelling. The magnitude of events, who they impacted, and the degree to which the events were managed are all, very often, told through the lens of data. The COVID-19 pandemic is a prime example of such data-driven history, where statistics on infections, death, vaccination, and average mobility are used to tell the story of how the pandemic unfolded in a given locale. While such statistical history is useful, it can also efface the histories of locations that lack access to the proper surveillance infrastructure, or are otherwise unable to deploy it. This produces an erasure of pandemic memory in healthcare-challenged areas, as deaths and infections go unrecorded and undocumented. This paper proposes the use of satellites to correct this, using Earth observation technologies to track viral vectors and find and document mass burial sites to produce a fuller picture of pandemic history, with an emphasis on filling the statistical gaps between the developed and developing world.

“I just didn’t want to talk about COVID anymore”

March 13, 2020—give or take a few days—is among the dates that will find themselves lodged in society’s memory for years, decades, or even centuries to come. Hordes of consumers flooded their local grocery and department stores, stockpiling toilet paper and milk. Food aisle shelves were emptied as frightened citizens, like vultures to an exposed carcass, picked them clean for all they were worth, leaving behind only the skeletal remains of their local grocery stores.² Students, first elated to learn of extended spring breaks as schools and universities grappled with how to approach the oncoming wave of coronavirus,³ were quickly disabused of their

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² Grace Chua et al., “The Determinants of Panic Buying during COVID-19,” *International Journal of Environmental Research and Public Health* 18, no. 6 (March 2021): 1-2, DOI: 10.3390/ijerph18063247.

³ Shannon Najmabadi and Naomi Andu, “Texas colleges and universities are going online because of coronavirus. Here’s what they’re doing,” *The Texas Tribune*, March 12, 2020, <https://www.texastribune.org/2020/03/11/texas-universities-extending-spring-break-prepare-coronavirus/>.

misconception that they were on a vacation when they were thrust into “Zoom University.”⁴ Restaurants, movie theaters, and shopping centers were vacated and the streets of major population centers were left barren as people, on the advice of health officials, retreated into their homes.⁵ Undoubtedly, the political consequences of the COVID-19 pandemic will be immortalized in official narratives: the coincident invigoration of popular social justice movements,⁶ declining confidence in capitalism (or at least the current expression of capitalism),⁷ and the rise and expansion of vaccine skepticism.⁸ As I write this, the Omicron variant wave has subsided in the United States, but an increase in cases has epidemiologists worried about another possible wave of infections, this time driven by an Omicron subvariant called BA.2,⁹ despite initial optimism that the highly infectious Omicron variant would have naturally immunized enough people to ward off another major wave.¹⁰ Today, it seems impossible that any living adult or adolescent could possibly forget March 2020 or the pandemic-dominated years that would follow. But what if there comes a time where COVID-19, the very virus that has upended global life since March 2020, is forgotten—or, at the very least, rarely spoken about?

To insert a personal anecdote, at the onset of the pandemic, my family—cousins, aunts, uncles, siblings, parents, my grandmother—had frequent Zoom meetings. As an Italian-Catholic family, even so much as a few weeks apart was a foreign experience to us, and the emergent Zoom platform became the medium over which we were able to connect. The calls were regular during March and April of 2020, but had begun to taper by May, in both regularity, frequency, and attendance, before stopping altogether by June. Months later, when it was safer to hold in person gatherings again, my cousins and I reflected on the early days of the pandemic and reminisced about the Zoom calls. When discussing how the family gradually lost interest, my cousin quipped,

⁴ Natasha Mascharenhas, “Tired of ‘Zoom University’? So is edtech,” *TechCrunch*, February 18, 2021, <https://techcrunch.com/2021/02/18/edtech-zoom-university/>.

⁵ Alan Taylor, “Photos: The Quiet Emptiness of a World Under Coronavirus,” *The Atlantic*, March 18, 2020, <https://www.theatlantic.com/photo/2020/03/photos-quiet-emptiness-under-coronavirus/608272/>.

⁶ See generally Geoffrey Pleyers, “The Pandemic is a battlefield. Social movements in the COVID-19 lockdown,” *Journal of Civil Society* 16, no. 4, DOI: 10.1080/17448689.2020.1794398.

⁷ See generally Albert L. Hsu et al., “Sources of Vaccine Hesitancy: Pregnancy, Infertility, Minority Concerns, and General Skepticism,” *Open Forum Infectious Diseases* 24, no. 2 (March 2021), DOI: 10.1177/1368430220981415.

⁸ Albenaz Azmanova, “Viral Insurgencies: Can Capitalism Survive COVID?” *Theory and Event* 23, no. 4 (October 2020): S-101, <https://muse.jhu.edu/article/775405/pdf>.

⁹ Tara Parker-Pope and Knvul Sheikh, “A New Wave of Covid-19 Is Coming. Here’s How to Prepare,” *The New York Times*, March 30, 2022, <https://www.nytimes.com/2022/03/30/well/live/ba2-omicron-covid.html>.

¹⁰ Helen Branswell, “After Omicron, we could use a break. We may just get it,” *STAT*, January 19, 2022, <https://www.statnews.com/2022/01/19/after-omicron-we-could-use-a-break-we-may-just-get-it/>.

“I just didn’t want to talk about COVID anymore. It was all that we really talked about.” Unknowingly, he had touched upon an important area of historiographical concern central to the thesis of Guy Beiner and company’s *Pandemic Re-Awakenings*. History, after all, is recorded by humans, and what happens when humans do not want to or are not able to record what may be monumental phenomena of history?

COVID-19 is Being Forgotten

Inequality in Data Collection:

By the end of April 2020, amidst the first of many COVID-19 infection waves to come, those living in low-middle income and low-income countries purportedly constituted only three percent of the world’s COVID-19-related deaths, despite constituting half the world’s population.¹¹ Taken at face value, this data seemingly indicates that you could improve your chances at enduring the pandemic if you lived in the developing world, inverting expectations that the world’s developed nations, with more advanced public health infrastructure, were better prepared to face a pandemic than the world’s developing nations.¹² Some, sharing this interpretation of the data, celebrated that the developing world would likely be spared the worst of what COVID-19 had in store.¹³ Others, however, were quick to point out a clear example of survivorship bias in the data: it was not the case that only three percent of global COVID-19-deaths had occurred in the developing world, but that only three percent of global *reported* COVID-19-related deaths had occurred in the developing world. The selection process, meaning the trial the data had to “survive” to be counted, required the country where the death occurred to have the capacity to register and document the death as COVID-19-related and then make this data accessible to the world. It was at these two points that the developing world’s COVID-19 data was lost, painting a picture of a pandemic worlds away from what was actually being experienced on

¹¹ Philip Schellkens and Diego Sourrouille, “COVID-19 Mortality in Rich and Poor Countries: A Tale of Two Pandemics?,” World Bank Policy Research Worker Papers (May 2020): 3, <https://documents1.worldbank.org/curated/en/559181590712052524/pdf/COVID-19-Mortality-in-Rich-and-Poor-Countries-A-Tale-of-Two-Pandemics.pdf>.

¹² Felix Richter, “The Countries Best and Worst Prepared for a Pandemic,” Statista, December 9, 2021, <https://www.statista.com/chart/20629/ability-to-respond-to-an-epidemic-or-pandemic/>.

¹³ Schellkens and Sourrouille, “COVID-19 Mortality,” 3.

the ground.¹⁴ This disconnect can be thought of as a form of forgetting, because the stories of countries that lack the infrastructure to collect data on public health are being expunged from global narratives even as these same countries bore (and continue to bear) the pandemic's most severe consequences.¹⁵ This expunging can be seen in journalists trumpeting the "three percent" statistic as a triumph of the developing world's evasion of an oncoming pandemic, rather than seeing the data for what it was: a reflection of the inequality between the developed and developing world's public health and data collection infrastructure. As a result, they have neglected to consider the negative impact this inequality will have on the ability to tell the story of the pandemic in the developing world.

The developing world's insufficient COVID-19 data collection can be attributed to a number of causes. Naturally, in order to ascertain whether a death had been caused by COVID-19, it would be necessary to first establish that a deceased patient had COVID-19. Even getting to this point, however, was often a challenge. The most reliable means of testing for COVID-19, recommended by the World Health Organization (WHO), is through reverse transcription polymerase chain reaction tests, or RT-PCR tests. Such tests, however, require RNA extraction kits, expensive RT-PCR machines, and trained technicians to operate them—physical and human capital frequently deficient in low-income states.¹⁶ Capacity building to augment national tracking infrastructure would further prove to be difficult amidst the onset of the COVID-19 pandemic, as the resources and human capital necessary to do so were dedicated to mitigating the much more felt and present threat of known COVID-19 infections as well as by serious medical emergencies,¹⁷ since the COVID-19-centric health infrastructure in much of the developing world was intertwined with non-COVID-19 health infrastructure.¹⁸ Dedicating scarce medical capital to fighting COVID-19 often meant draining resources from treating survivors of heart attacks or victims of automobile accidents, patients which were often less likely to survive without treatment than COVID-19

¹⁴ Schellkens and Sourrouille, "COVID-19 Mortality," 21-22: It is worthy of note that authors of this article state that there may be reasons to believe that mortality rates in the developing world are indeed lower than that in the developed world. More information on this can be found in Schellkens and Sourrouille's article.

¹⁵ See generally Nicolas Botton, Bridget Hoffmann, and Diego A. Vera-Cossio, "The Unequal Impact of the Coronavirus Pandemic: Evidence from Seventeen Developing Countries," IBD Working Paper Series (August 2020): DOI: 10.18235/0002451.

¹⁶ Anil K. Giri and Divya RSJB Rana, "Charting the challenges behind the testing of COVID-19 in developing countries: Nepal as a case study," *Biosafety and Health* 2 (2020): 53, DOI: 10.1016/j.bsheal.2020.05.002.

¹⁷ Giri and Rana, "Charting the challenges," 53.

¹⁸ Sansone Pasquale et al., "COVID-19 in Low- and Middle-Income Countries (LMICs): A Narrative Review from Prevention to Vaccination Strategy," *Vaccines* 9, no. 1477 (2021): 5, DOI: 10.3390/vaccines9121477.

patients.¹⁹ Thus, the three percent statistic was not a cause for optimism, but rather a reflection of how poor tracking and data collection infrastructure can produce distorted statistics, expunging the most severely impacted populations from political and historical epidemiological narratives.

Although the developing world faced testing access challenges greater than the developed world, testing access also posed a serious issue in many high-income countries. In the United States, for instance, those living in rural communities, counties with greater uninsured populations, counties with greater populations of color, and/or counties with lower median incomes faced difficulty in accessing testing sites.²⁰ The inequalities that come with rural living are felt to a unique extent amongst Indigenous communities in the United States, who often reside in geographically isolated regions. These communities frequently lack access to both adequate healthcare and broadband Internet, which in turn inhibits the ability of Indigenous populations to locate and access COVID-19-testing.²¹ These findings have raised the justified concern that this inadequate testing capacity would produce biased estimates of infection amongst low-income, uninsured, and rural individuals, as well as people of color in the United States.²² In a perverse, self-replicating cycle, disparities in data collection beget even further disparities, as inadequate data on infection and death rates among communities with low testing access means that the conditions that have amplified these mortality rates among poor individuals, people of color, and those living in rural communities cannot be adequately studied, allowing the disparities to remain in place, unchecked.²³

Impacts of Inadequate Pandemic Surveillance:

The impact of inadequate pandemic surveillance is both historiographical and political, and in many ways a combination of the two. When people do not collect accurate COVID-19 data, it erases the stories of the communities who suffered. This is not to say that every individual who

¹⁹ Giri and Rana, “Charting the challenges,” 54.

²⁰ Benjamin Rader et al., “Geographic access to United States SARS-CoV-2 testing sites highlights healthcare disparities and may bias transmission estimates,” *Journal of Travel Medicine* 27, no. 7 (October 2020): 2-3, DOI: 10.1093/jtm/taaa076.

²¹ Ahmed Goha et al., “Indigenous people and the COVID-19 pandemic: the tip of an iceberg of social and economic inequities,” *Journal of Epidemiological Community Health* 75, no. 2 (February 2021): 207, DOI: 10.1136/jech-2020-214755.

²² Rader, et. al., “Geographic access to United States,” 1–3.

²³ Kelly Servick, “‘Huge hole’ in COVID-19 testing data makes it harder to study racial disparities,” *Science*, July 10, 2020, <https://www.science.org/content/article/huge-hole-covid-19-testing-data-makes-it-harder-study-racial-disparities>.

contracted and suffered from COVID-19 will be named in future history textbooks; rather, the significance of this erasure focuses less on individuals, and more on the broader communities whose history has been eroded. The plurality of reported data on COVID-19 infections and deaths in the United States covers relatively wealthy individuals from urban or suburban areas with access to health insurance. On a global scale, most reported data comes from high-income nations with robust national diagnostic apparatuses. Yet, it is these same people—those from developed nations, with reliable access to testing centers and quality health services, and with appreciable disposable income—that have been affected the least by the COVID-19 pandemic. The stories of the privileged are, by no means, less worthy of being told, but memorializing the plight of the privileged as the dominant historical narrative of the COVID-19 pandemic would be to ignore the unique (and more severe) experiences of the underprivileged. Both stories are worth telling, but the data today only tells one. Similarly, the impact of inadequate pandemic testing is political in that this testing deficiency makes it difficult to identify hotspots of disease,²⁴ quickly isolate infected individuals,²⁵ and make appropriate public health decisions based on accurate and up-to-date infection information.²⁶ Without these capabilities, it enables the further spread of infectious disease. It has yet to be seen whether COVID-19 will finally alert the world to the importance of robust surveillance capabilities and spur global action to enhance international diagnostic capabilities, particularly amidst innovative strides in the Internet of things, tele-medicine, and the like that, theoretically, should make a robust surveillance regime possible.

At the intersection of the political and the historiographical is the way in which public health planners often refer back to previous crises and the organized response to ascertain what was and was not effective at curtailing the unfolding crisis.²⁷ When the historical narrative is incomplete, however, this generates a similarly incomplete understanding of what public health measures were effective. This feedback loop may, in turn, inform poor policy. If too much of the

²⁴ Hayden Dahmm, “In Low-Income Countries Fundamental Data Issues Remain for COVID-19 Response,” April 17, 2020, <https://www.sdsntrends.org/blog/covid19andlowincome-countries?locale=en>.

²⁵ “UN/DESA Policy Brief #66: COVID-19 and the least developed countries,” United Nations Department of Economic and Social Affairs, May 1, 2020, <https://www.un.org/development/desa/dpad/publication/un-des-policy-brief-66-covid-19-and-the-least-developed-countries/>.

²⁶ Irene Torres, Rachel Sippy, and Fernando Sacoto, “Assessing critical gaps in COVID-19 testing capacity: the case of delayed results in Ecuador,” *BMC Public Health* 21, no. 637 (2021): 7, DOI: 10.1186/s12889-021-10715-x.

²⁷ Stanley M. Lemon et al., “Overview” in *Ethical and Legal Considerations in Mitigating Pandemic Disease: Workshop Study* (2007): 31-33, ISBN: 0-309-10770-9.

available data on COVID-19 centers on the wealthy and privileged within the developed world, then the available data will illustrate a hyperreal version of history where governments were far more successful at confronting the COVID-19 threat than they really were and may erroneously convince officials to pursue similar strategies, to the detriment of the communities that have found themselves similarly neglected by government and public authorities over these past few years. Historiographical concerns are not purely academic when a “past as prologue” approach is taken in devising policy for present and future threats.

You Can’t Talk to Birds:

Among the myriad of concerns unearthed by a tumultuous few years of pandemic life is that diagnostic and tracking capacity was and continues to be insufficient to face pandemic-level threats. As *Nature* writer Amy Maxmen eerily put it, despite the decades of research and millions of dollars invested in devising pandemic preparedness protocols and guidelines, “COVID-19 has demonstrated that the world was even less prepared [for a global pandemic] than most had imagined.”²⁸ A significant reason for COVID-19’s startling reality check was that, like most diseases, its spread significantly predated the first surveillance efforts. It is now generally agreed that COVID-19 had been spreading for several weeks before officials reported a mysterious pneumonia-like virus proliferating across Wuhan, and months before the world truly understood the gravity of the emergent pathogen.²⁹ In even the small handful of weeks where disease is able to spread unchecked, highly infectious viruses like COVID-19 can make gains that are difficult to counter, particularly as the virus spreads across territory.³⁰ This, unfortunately, is the normal course of events with diseases. By the time an emergent disease becomes an item of interest among governments, it often has had the opportunity to spread far and wide, putting governments squarely on the defense against a pathogen-at-large.³¹ Thus, it would appear that human infection may be a sub-optimal means of tracking a virus, given that it requires the potentially infectious and virulent pathogen to cause damage before trackers can be made aware of its mere presence in human hosts.

²⁸ Amy Maxmen, “Has COVID taught us anything about pandemic preparedness?,” *Nature*, August 13, 2021, <https://www.nature.com/articles/d41586-021-02217-y>.

²⁹ Maxmen, “Has COVID taught us anything.”

³⁰ Maxmen, “Has COVID taught us anything.”

³¹ Maxmen, “Has COVID taught us anything.”

This poses an interesting historiographical question: why are humans at the center of epidemiological histories to begin with? Humans, of course, must be included in the narrative in some capacity, as diseases have been defining experiences of human civilization for millennia. But viruses are not spontaneous phenomena engineered to afflict humans. Assuming that one of the foremost reasons to study history is to learn from the past, then beginning the story of a virus at the time it first afflicts a human tells a truncated, anthropocentric history. This results in a forgetting (if it was known to begin with) of the pre-human history of viruses—and, unfortunately, you can't talk to birds or any of the other common vectors of illness. Once again, the significance of this point is not purely academic. I previously listed a number of social and political consequences brought on by the ongoing COVID-19 pandemic, each of which demonstrates the capacity of viruses (and bacteria) to direct the course of history. Do these consequences not merit investigating? So that we may learn where these diseases come from and how we may avoid replicating the same mistakes in the future and unleashing yet another deadly pathogen into our world. A number of researchers have advocated for focusing surveillance on people based on their daily environments. Most emergent diseases are zoonotic in origin, leading some epidemiologists to argue for the enhanced tracking of those who work in forests or on farms, where they may come into contact with animals who may very well be hosting the world's next supervirus.³² For the same reason, it is prudent to study the history of viruses, not simply pandemics. If the public was as conscious of the history behind viral emergence as it was about the consequences of viral emergence, perhaps it would spur demand for a public health regime that was proactive and operated on the offensive, extinguishing viruses before they left the barnyard, rather than reacting defensively once the virus has found a human host. Additionally, shifting the focus away from people helps ameliorate the survivorship biases that haunt pandemic studies.

What if You Could See Everything?

Following the Virus:

Luckily, an emerging technique of epidemiological study has made it possible to both correct the international inequities in virus surveillance and study the histories of the virus themselves. This is the technique of tele-epidemiology. Tele-epidemiology functions by making

³² Maxmen, "Has COVID taught us anything."

use of a variety of scientific instruments and functions available to satellites, and using them to predict the movement of potential vectors, including animals, humans, insects, and bacteria, to generate a geographic model of a viruses' predicted dispersion. This model can be helpful in identifying areas particularly vulnerable to infection.³³ While each individual vector cannot, themselves, be monitored by satellites, a number of serious vector-borne diseases are heavily influenced by environmental conditions, namely by virtue of their influence over the movement of the vectors themselves.³⁴ If the species host of a particular virus is known, however, then individual vectors can be tracked using Earth Observation (EO) technology. Using EO technology has yielded promising results for the use of tele-epidemiology to track disease spread as a function of vector movement.³⁵ These methods of geospatial viral detection can thus be used to construct useful models of viral dispersion, providing direction to terrestrial researchers for on-the-ground verification and assisting public officials in identifying emerging epicenters of infection.

From a historiographical point of view, tele-epidemiology can assist researchers in representing the pandemic experiences of those commonly excluded from historical narratives. While EO and tele-epidemiology do not lend themselves to oral histories like those featured in *Pandemic Re-Awakenings*, these technologies do allow historical researchers to overcome hurdles related to data inequality in historical storytelling by providing a means of measuring the impact of pandemics on civilian populations independent of the robust national tracking infrastructure that many developing states lack. Additionally, with the newly-obtained knowledge regarding the locations of under-treated hotspots, medical planners of the future will be able to build a pandemic response that aims to correct these inequities. The value in tele-epidemiology is its usefulness in tracking what is not visible to eyes on the ground and constructing a narrative that emphasizes the role of viruses in pandemics, so that we may not only understand the true nature of pandemics, but also so that we may create a more inclusive narrative of a virus' human impact.

Unearthing the Past—Literally:

³³ Stephanie Brazeau et al., "Tele-Epidemiology: Advancing the Application of Earth Observation to Public Health Issues in Canada," *IEEE Earthzine*, May 2, 2014, <https://earthzine.org/tele-epidemiology-advancing-the-application-of-earth-observation-to-public-health-issues-in-canada/>.

³⁴ Stephanie Brazeau et al., "Tele-Epidemiology and Public Health in the Canadian Context," *Living Planet Symposium* (9–13 May 2016): 2, <https://articles.adsabs.harvard.edu/pdf/2016ESASP.740E...7B>.

³⁵ Marius Gilbert et al., "Flying Over an Infected Landscape: Distribution of Highly Pathogenic Avian Influenza H5N1 Risk in South Asia and Satellite Tracking of Wild Waterfowl," *Ecohealth* 7 (2010): 455-456, DOI: 10.1007/s10393-010-0672-810.1007/ s10393-010-0672-8.

Not only is the history of COVID-19 actively being forgotten, it is being covered up. Amidst the overwhelming death toll and immense stress placed on public health infrastructure, a number of localities have resorted to storing the dead in mass graves. The deaths accumulated so quickly that it was impossible to truly attend to the dead. And while this challenge was particularly felt in remote areas, where medical staff and supplies were limited, it was not felt exclusively by the isolated and under-resourced.³⁶ Hart Island, located near the Bronx in New York City, was used as a mass grave for the city's dead whose families could not be identified. In the early days of the pandemic, a spokesperson for New York City's Department of Corrections stated that burials on the island increased five-fold following the arrival of COVID-19 to the United States, with two additional trenches needing to be dug.³⁷ Crises of public health have long driven civilizations to resort to mass graves to put to rest the ever-increasing number of casualties. In 2015, Pennsylvania construction workers accidentally unearthed what is believed to be a mass grave dug during the 1918 flu pandemic which, much like COVID-19, struck the population with disorienting force.³⁸ The recent ebola epidemics in Africa had a similar effect, leaving a network of mass graves littered across the impacted sites.³⁹

While mass graves are often an expression of desperation by societies ravaged by death, they also represent yet another form of forgetting and historical erasure. Individuals buried in unmarked mass graves necessarily have their stories erased. There is no official commemoration of their deaths and, by extension, no documentation of the public health crisis that caused them. In a vein similar to disparities in data collection, mass graves are more common amongst communities lacking adequate public health infrastructure, such as remote, healthcare-challenged

³⁶ Jason Beaubien, "A mass COVID grave in Peru has left families bereft – and fighting for reburial," NPR, December 4, 2021, <https://www.npr.org/sections/goatsandsoda/2021/12/04/1060167105/a-mass-covid-grave-in-peru-has-left-families-bereft-and-fighting-for-reburial>.

³⁷ Meg Anderson, "Burials On New York Island Are Not New, But Are increasing During Pandemic," NPR, April 10, 2020, <https://www.npr.org/sections/coronavirus-live-updates/2020/04/10/831875297/burials-on-new-york-island-are-not-new-but-are-increasing-during-pandemic>.

³⁸ Danny Lewis, "Human Bones Found Near Pennsylvania Highway Could Be From the 1918 Flu," August 20, 2015, *Smithsonian Magazine*, <https://www.smithsonianmag.com/smart-news/human-bones-found-near-pennsylvania-highway-could-be-1918-flu-pandemic-180956344/>.

³⁹ Rebecca Ratcliffe, "Grief etched in stone: Sierra Leone finally lays Ebola to rest - in pictures," April 18, 2017, *The Guardian*, <https://www.theguardian.com/global-development/gallery/2017/apr/18/grief-etched-in-stone-sierra-leone-finally-lays-ebola-to-rest-in-pictures>.

areas,⁴⁰ or those that lack the resources to afford a proper burial, such as on Hart Island.⁴¹ Just as is the case of data collection, inadequate burials and the consequent erasure of pieces of pandemic history most prominently affect already-marginalized communities, and shift the focus of pandemic historical study away from those most severely impacted.

EO technology, however, can assist in rectifying this disparity in two ways. The first way is through standard satellite imagery: photographing instances of mass burial. Aerial footage has been useful in publicizing efforts by a number of countries, such as Iran⁴² and Indonesia,⁴³ to dig mass graves. More advanced forms of EO, known as “remote sensing,” have also been shown to be effective at locating concealed mass graves invisible to conventional aerial photography. Among these remote-sensing techniques are ground-penetrating radars (GPR) and electrical Earth resistance, both of which are able to identify abnormal formations and structures beneath the surface, such as mass burials.⁴⁴ Another method available is the analysis of “crop marks”—gradients in vegetative health induced by the presence of buried masses that prevent crop roots from penetrating into the soil.⁴⁵ Thus, while much history may be lost by the time the mass grave has been filled in, the discovery of these sites can still help establish a just historical record, documenting mass burials and accounting for those who had their memories and stories effaced under the pressure of a pandemic. When employed in real time, EO researchers are able to make predictions on mortality within countries by analyzing mass grave activity. In Yemen, for example, researchers used satellite imagery of mass burial activity to contradict government-reported mortality statistics.⁴⁶ In this way, satellites can, within a small time frame, establish a more accurate statistical record of a pandemic’s impact against currents of both intentional and

⁴⁰ Beaubien, “A mass COVID.”

⁴¹ Sarah Goodyear, “If You Die Poor or Alone in New York City, You’ll Be Buried by Prisoners in a Mass Grave,” March 31, 2015, *The Nation*, <https://www.thenation.com/article/archive/there-progressive-way-bury-lonely-poor-huddled-masses/>.

⁴² Eric Cunningham and Dalton Bennett, “Coronavirus burial pits so vast they’re visible from space,” March 12, 2020, *The Washington Post*, <https://www.washingtonpost.com/graphics/2020/world/iran-coronavirus-outbreak-graves/>.

⁴³ Kate Lamb and Stanley Widianto, “Aerial images of expanding graves capture Indonesia’s deadliest days,” July 8, 2021, *Reuters*, <https://www.reuters.com/world/asia-pacific/aerial-images-expanding-graves-capture-indonesias-deadliest-days-2021-07-08/>.

⁴⁴ Soren Blau et al., “Exploring non-invasive approaches to assist in the detection of clandestine human burials: developing a way forward,” *Forensic Sciences Research* 3, no. 4 (2018): 307, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6374940/pdf/tfsr-3-1493809.pdf>.

⁴⁵ Blau, et. al., “Exploring non-invasive,” 305.

⁴⁶ Emilie S. Koum Besson et al., “Excess mortality during the COVID-19 pandemic: a geospatial and statistical analysis in Aden governorate, Yemen,” *British Medical Journal Global Health* 6, no. 3 (2021): 6-8, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7992372/pdf/bmjgh-2020-004564.pdf>.

unintentional revisionism. In both of these ways, satellites can be used to rectify instances of historical amnesia and establish a more accurate—and more just—record of pandemics past.

Conclusion

Tales of pandemics constitute, in large part, a central thread in the wider story of humanity. History has been shaped by illnesses, but as the historical record of these periods becomes enmeshed with sophisticated medical tracking technology, we run a greater risk of marginalizing those living in areas or conditions that do not afford them access to such infrastructure. Being born into such circumstances often means that these individuals find themselves beyond the scope of historical study. Pandemics thus become a story of the more privileged: those with access to healthcare or those living in areas with a more robust public health infrastructure, those able to pay for proper burial, and so on. Such injustices, however, can be (at least partially) ameliorated if we turn to the sky, and take in an aerial view of what we miss with our terrestrial eyes.

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Article 4

Masks: One Small Step for Man, One Giant Leap for America

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MASKS:

ONE SMALL STEP FOR MAN, ONE GIANT LEAP FOR AMERICA

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Abstract: COVID-19 struck the globe nearly a century after the last major pandemic, where the Spanish flu is theorized to have “ended” *only* because it infected the entire planet. Scientists now believe that the mutations will become less deadly over time, that is, if we make vaccinations a regular part of our lives. One might refuse “the shot” for various reasons, but masks are now non-negotiable. These paper safeguards have been proven to protect ourselves and others, and yet have become a symbol of political rebellion in America. What exactly *causes* this reaction is difficult to understand, but with an intense dive into American political theory (and lots of Twitter posts), this paper can answer that question.

One would think that the immense impact of a humanitarian crisis would at least frighten us into preparing for the next crisis, but somehow, in America, that is not the case. COVID-19 struck the globe nearly a century after the last major pandemic, the Spanish Flu, which is theorized to have “ended” only because it infected nearly the entire planet. Fortunately, it seems as though our current predicament is headed in the same direction, leading professionals to believe that the mutations will become less deadly over time, that is if we continue to make vaccination a regular part of our lives. While one might refuse vaccination for various reasons, the wearing of masks has become non-negotiable. These paper safeguards have been proven to protect ourselves and others, and yet have become a symbol of political rebellion for some citizens. It is no arcane thought to assume that the past years of political disarray are responsible for the incorrigible approach to the pandemic, where both citizens and lawmakers have suffered to that effect. Instead of focusing on the humanitarian issues that Americans were forced to face, news outlets utilized the pandemic as a tool for political progress for the 2020 presidential election. The needs of frontline workers were largely ignored, and their safety was jeopardized by those who refused to wear personal protective equipment (PPE) in response to the growing political strain in America.

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Now that we must deal with the pandemic's lingering effects, we must ask ourselves: when did the words of scientists become insignificant? What led us to become so skeptical of the same people who have accomplished the unimaginable, like landing a rover on Mars? What drove us so far down this path to prioritize our political beliefs before our very lives?

Many of us would be grateful for the chance to erase the pandemic from our recent memories, but in doing so, we would also eliminate the humanity we have gained together in the face of this evil. The idea that COVID-19 came as a shock to all of us, though, is wildly inaccurate. For years, scientists had warned us of the possibility that an event as destructive as the Spanish Flu could happen, however their cries were drowned by the incivility of American political parties. Their hostility to one another has always been present during election times, but the degree to which this hostility influences elections has dramatically increased with the presence of social media. The vast accessibility and freedom of these platforms have given us an inherently equal place to share, but the nature of cyberspace created an opportunity for users to incite violence against those who disagree. This risk has certainly affected American protests of all kinds, including some anti-mask efforts, where the proponents of this movement have decided to prioritize their political beliefs over their health and well-being.

At the beginning of any crisis, it is difficult to realize you are in one. The anxieties felt by those affected by a crisis can cause a certain amount of 'alexithymia,' or an inability to put a name to one's emotions and process them appropriately. The National Institute of Health researched South Africa's youth, predicting that they will be at greater risk of developing mental health disorders. The publication stated that: "high rates of severe mental illness and low availability of mental healthcare amidst COVID-19 emphasize the need for immediate and accessible psychological resources," naming depression, anxiety, and all of their 'covariates' as potential diagnoses.² Our reactions may be just a result of the stress we felt during the onset of the pandemic, but it is unreasonable to assume that we could not have prepared for this more thoroughly. If there was ever a time in which we really should not have taken historical lessons for granted, it was the predecessor of COVID-19: the Spanish Flu.

² Andrew Wooyoung Kim, Tawanda Nyengerai, and Emily Mendenhall, "Evaluating the Mental Health Impacts of the COVID-19 Pandemic: Perceived Risk of COVID-19 Infection and Childhood Trauma Predict Adult Depressive Symptoms in Urban South Africa," *Psychological Medicine*, n.d., 1–13, <https://doi.org/10.1017/S0033291720003414>.

There are plenty of aspects of Spanish Flu (or the “1918 Flu”) that overlap with COVID-19, many of which are associated with the delay in the reaction time and attempts to prevent the virus from spreading. In March of 1918, American soldiers became the first of thousands to succumb to the virus in deployment camps alone (see Figure 0.1). Although there were attempts

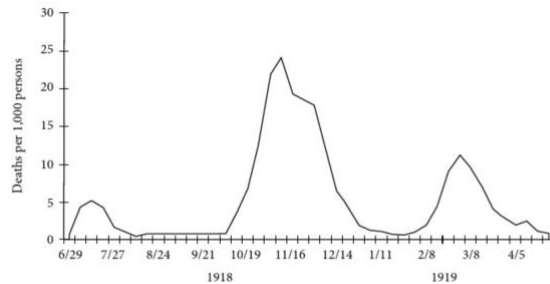


Figure 0.1 Three pandemic waves, UK.
Weekly combined influenza and pneumonia mortality, United Kingdom, 1918–1919.
Source: Jeffery K. Taubenberger and David M. Morens, ‘1918 Influenza: The Mother of All Pandemics’, *Emerging Infectious Diseases*, 12, no. 1 (2006).

to flatten the curve by the medics and frontline staff, the death toll skyrocketed due to improper PPE and the lack of experience with a disease of this magnitude. These attempts, however, were contradicted by the high population of “anti-maskers” at the time, who formed their own union in San Francisco called the Anti-Mask League.³ The League took on the position that the nationwide mask ordinances were actually unhealthy, and tried to convince the public of the same through posters, advertisements, protests, and town halls. The group is well described in *Pandemic Re-Awakenings*, as editor Guy Beiner names the Spanish flu as the first “mass-mediated disease,” or one in which the general public has a strong influence on its outcome.⁴ The ideas that the League promoted were shared all across the nation, yet their first formal protest did not occur until January of 1919, nearly a year after the first “flu-like symptoms” were detected in the United States. In just the first five days of that new year,



³ Nicholas Loud, “The Anti-Mask League of 1919: The Cultural Battle of an Enduring Pandemic,” *Untapped New York*, July 15, 2020, <https://untappedcities.com/2020/07/15/the-anti-mask-league-of-1919-the-cultural-battle-of-an-enduring-pandemic/>.

⁴ Guy Beiner, *Pandemic Re-Awakenings: The Forgotten and Unforgotten “Spanish” Flu of 1918-1919* (Oxford: University Press, 2021), <https://doi.org/10.1093/oso/9780192843739.001.0001>.

San Francisco reported 1800+ new cases and 101 deaths, igniting the first of many major protests against these ordinances.⁵

The events of the early twentieth century forced the United States into years of recovery, not only from the effects of the Great War but also those of the pandemic whose impact was nearly greater. It is difficult to imagine that an influenza was strong enough — or rather that our immunity was weak enough — that a world war would impact us to a lesser degree. This idea, however, left an impression on those who felt responsible for the spread of the virus, leading Beiner to the following conclusion:

For the first half-century after the ‘Spanish Flu,’ few historians gave the 1918-19 influenza pandemic much thought, concentrating on the far more compelling story of the First World War. By contrast, medical researchers never forgot their helplessness in the face of the pandemic and, after the war, returned to their laboratories determined to make amends for the ‘failure’ of [their own] bacteriological expertise.⁶

This strange intersection of medicine and history, however, is not the first of its kind. In 1890, Russia faced a minor battle with influenza, but one large enough to make headlines. Before that, influenza infected the United Kingdom every winter, inciting scientists to develop new theories about bacteriology in the process. Each of these “pandemics,” large or small, have fallen alongside a major historical event that largely distracted the public from its effects. The same thing happened with COVID-19, where it arguably coincided with the nation’s largest anti-racism movement since the 1960’s.⁷ To that effect, the direct relationship between history and public health has existed for centuries, and yet, Americans still seem surprised by how high tensions grew in the political arena during the new age. It seems as though the key difference in all of these events is the presence of one *new* player whose costs seem to outweigh their benefits: social media platforms.

The speed at which we can now communicate over long distances is staggering when compared to the twentieth Century. The world has grown smaller in the sense that voices are now able to reach a much larger audience, prompting the global community to share ideas and think in new ways. While social media and news platforms have granted us this privilege, they also serve

⁵ “1918 Pandemic Influenza Historic Timeline | Pandemic Influenza (Flu) | CDC,” Centers for Disease Control and Prevention, April 18, 2019, <https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/pandemic-timeline-1918.htm>.

⁶ Beiner, *Pandemic Re-Awakenings*, 218-219.

⁷ Beiner, *Pandemic Re-Awakenings*, 220.

as a loophole for those who try to incite violence, publish propaganda, or take advantage of new platform users. All of these aforementioned variables were key components of the pandemic, leading to some positive trends, like the Black Lives Matter movement, and some more negative consequences, like the capitol riots on January 6th, 2021. A lot of these events were connected to mask-wearing, — or rather by the greater theme of compliance — but what is unusual about this trend is that mask-wearing is a health matter, not a political statement; and yet we have turned it into one. That we should put our personal beliefs ahead of our safety and well-being should be of the utmost concern, and yet health concerns were ignored by a large portion of the United States throughout the pandemic. Now we must ask ourselves: what led us to this point?

It is not unusual for a presidential or larger federal election to impact citizens on a local level, but it is unusual for the impact to be offensive. The 2016 presidential election might seem like an unreasonable stretch, but when we consider the anxiety it gave American citizens and the attention it drew worldwide, it is no wonder that after four years of bickering, Americans were unwilling to tolerate such animosity again. One of the inherent failures of a two-party system is that citizens are forced to ‘umbrella’ all of their beliefs under one party or the other, which may or may not disagree with them on multiple accounts. Members of the Republican Party faced a massive test of faith when they realized Donald Trump was their 2016 nominee, causing groups like the “Never Trumpers” and the “Lincoln Project” to disassociate from their original affiliation. They wanted to continue to be members of the Republican Party but morally could not stand alongside Trump’s “wildly inconsistent worldview and unmoored principles.”⁸ Trump’s commentary, however, was not just limited to the election and continued to agitate the public over the course of his presidency. There is something to be said about whom his words were directed towards as well. Aside from the already-marginalized populations, he also made remarks about his own followers when he realized who they were. He used words like “disgusting” and “uneducated” to describe them, which only further tested the party’s loyalty.⁹ Since then, Trump’s commentary would be manipulated in such a way that his literal word became Gospel for some, and comedic

⁸ Yochi Dreazen, “They Publicly Denounced Him. Now NeverTrumpers Want Jobs in His White House. - Vox,” Vox, November 11, 2016, <https://www.vox.com/policy-and-politics/2016/11/11/13593254/president-donald-trump-administration-cabinet-gop-nevertrump>.

⁹ Mark Leibovich, “Trump Has Called His Supporters ‘Disgusting.’ Do They Care?,” *The New York Times*, October 10, 2020, sec. Sunday Review, <https://www.nytimes.com/2020/10/10/sunday-review/trump-supporters.html>.

relief for others. His presidency desensitized the nation to the new political climate, but it did encourage the public to engage with politics for the first time in decades.

Tensions grew when the pandemic began in late 2019, but only in some overseas parts of the world. The cries from Italy, for example, could be heard around the world, but they were largely ignored by the American government. Quarantine may have begun on March 13th, but the nation's first mask mandate began as a mere "recommendation" in early April, nearly a month after the rest of the world had shut down. The government was not faced with much pressure at first, but after Mr. Trump had been seen blatantly ignoring the rules his own Senate had put into place, the public's attitude shifted. In *Pandemic Re-Awakenings*, Beiner remembers a particular time that Mr. Trump had not learned from his own family history, quoting him on his "[lack of] awareness of his own paternal grandfather's death in May 1918, during the first wave of



the Spanish Flu," when Trump mislabeled it as the "Pandemic of '17."¹⁰ He, like many others, may have forgotten much of our own histories, but the records we have of the 1918 pandemic seem to ignore its magnitude. Beiner noted that "the Great Flu was interwoven with the Great War in a literary apocalyptic landscape that obscured [its] cultural history."¹¹ In a sense, this fact was driven by newspaper companies trying to avoid lawsuits for fear mongering and writing about the heightened sense of danger associated with the ongoing war.

For those who trust in the science behind disease prevention, it is difficult to imagine two things: first, the logistics of how anti-maskers are able to navigate their regular lives in a post-COVID world, and second, why they are so obstinate, given the difficulty in avoiding wearing a mask. Furthermore, when did "believing" in science even become a question? One of the many beauties of science is that there are definitive answers, should you be willing to find them, and that choosing to ignore them is simply neglecting logic and reason. Journalist Emily Stewart attempted to answer this inexplicable question in an article for *Vox*:

What I discovered is that there is certainly a broad spectrum of reasons — some find wearing a mask annoying or just aren't convinced they work, and others have gone down a rabbit hole of conspiracies that often involve vaccines, Big Pharma, YouTube, and Bill Gates (to name a few). ... But there are also many commonalities. Most people I talked to noted government officials' confusing

¹⁰ Beiner, *Pandemic Re-Awakenings*.

¹¹ Beiner, *Pandemic Re-Awakenings*.

messaging on masks in the pandemic's early days... [However, they] also expressed doubts about the growing body of scientific knowledge around the virus, opting for cherry-picked and unverified sources of information found on social media.¹²

This political trend is also similar to the kinds of information (or lack thereof) published during the Spanish Flu. Objections from groups like the Anti-Mask league were mostly seen as “exceptions” to the public’s general mask-conformity, but experts who have dissected our literary sources urge us to disagree. In his publication, “Unmasking History,” Dr. Brian Dolan argues that he is not surprised to see the mild protests from 1918 make a comeback now, but finds that these protests are now heightened due to technological advancements. Both events have demonstrated “the disconnect between individual choice and universal compliance,” which has become a prevalent theme in recent years. “The masks turned into a political symbol,” he declared, after discussing how groups like the Anti-Mask League based their arguments on a lack of scientific evidence and negligence of constitutional rights.¹³ Their disobedience, however, seems to be more about a list of grievances “anti-maskers” had with the government, but ironically ‘masked’ these complaints by making the protest appear solely about the act of mask-wearing itself.

While all of these sources can attest to the ‘pros and cons’ of democracy during unprecedented times, they cannot explain why Americans in particular have always shown animosity when unity was needed. We could speculate that our military success and a shared sense of nationalism have planted the fear of failure in all of us, but this fear would have to be rooted in a previously hard experience, whereas Alexis de Tocqueville argues we have none:

Americans have fortunately escaped all the perils that I have just pointed out, and in this respect, they are really deserving of admiration. Perhaps there is no country in the world where fewer idle men are to be met with than in America, or where all who work are more eager to promote their own welfare... The inhabitants of the United States alternately display so strong and so similar a passion for their own welfare and for their freedom that it may be supposed that these passions are united in some part of their character... They believe, on the contrary, that their chief business is to secure for themselves a government which will allow them to acquire the things they covet and will not debar them from the peaceful enjoyment of those possessions by which they have already acquired.¹⁴

¹² Emily Stewart, “Anti-Maskers Explain Themselves,” Vox, August 7, 2020, <https://www.vox.com/the-goods/2020/8/7/21357400/anti-mask-protest-rallies-donald-trump-covid-19>.

¹³ Brian Dolan, “Unmasking History: Who Was Behind the Anti-Mask League Protests During the 1918 Influenza Epidemic in San Francisco?,” 2020, <https://doi.org/10.34947/M7QP4M>.

¹⁴ Alexis de Tocqueville, *Democracy in America*, Rev. ed., The World’s Great Classics. Colonial Ed (New York: Colonial Press, 1899).

This testament to our strength as individuals is incredibly accurate, even if it was written only decades after the nation’s establishment. Tocqueville’s foresight can apply to our contemporary world as well. He commented about how Americans tend to twist the truth so it fits our own political agendas, a practice that we are guilty of using in nearly every scandal or election. He writes, “While the bulk of the community is engrossed by private concerns, the smallest parties need not despair of getting the upper hand in public affairs.”¹⁵ In circumstances such as this recent pandemic, it is clear that political philosophy from the time of our nation’s founding is still applicable in today’s climate. John Locke’s *Second Treatise of Government* is applicable here as well, with an explanation of *why* Americans value their democracy so much:



When the government is dissolved, the people are at liberty to provide for themselves by erecting a new legislature... as they shall find it most for their safety and good; for the society can never, by the fault of another, lose the native and original right it has to preserve itself.¹⁶

Amongst all of these sources are the motifs of duty, independence, and nationalism, which are most often found in democracy. These freedoms our country provides us with, however, require a certain amount of responsibility, a responsibility that the nation seems to have lost since its creation. We created the Constitution in order to protect our unalienable rights and become an example of a better world, and now in the face of adversity, we have turned to the exploitation of these liberties instead of using them to empower ourselves. During the Spanish Flu, we witnessed attempts of liberty distortion when the League denounced the California state legislature for their public mask mandate, claiming that it violated their individual autonomy. This idea spread during the anti-mask efforts with COVID too, where the phrase “my body, my choice,” (often associated with abortion laws) was paraded around the legislature around the time of the Capitol Riots.¹⁷

¹⁵ Tocqueville, *Democracy in America*.

¹⁶ John Locke, *The Second Treatise of Government*, The Library of Liberal Arts. Political Science ; No.31 (New York: Liberal Arts Press, 1952).

¹⁷ John E. Finn, “The Constitution Doesn’t Have a Problem with Mask Mandates,” *The Conversation*, accessed July 8, 2022, <http://theconversation.com/the-constitution-doesnt-have-a-problem-with-mask-mandates-142335>.

It is quite possible that American nationalism reflects our country's rebellious past. Colonization of the New World began with a want for religious and political freedom, individual states were created for that same reason, and so forth. It is safe to say that those who did not follow CDC recommendations did follow those of Trump, who is not a medical professional. That being said, the nature of Trump's presidency resembled that of presidents during war time, and for those of us living through the pandemic, the circumstances might have seemed fitting. During his 2016 campaign, Trump promised change and regardless of the actual sustenance of his policies, he certainly engaged with the public in ways that no recent politician ever has. Whether the headlines he made were good or bad, they were headlines, and this sort of attention is exactly the kind of unrest that fueled Anti-Mask campaigns.¹⁸

The United States is now in a period of waiting: waiting for old grievances to pass, waiting for the legislature to change, and waiting for a new country to take shape. The post-pandemic world can and should be viewed as a clean slate, however not one that forgets the events that led us here. Lots of what led us here could have been avoided had we not taken history for granted and avoided making the same mistakes we made back in 1918. This clean slate is giving us an opportunity to change our nation for the better, should we be willing to try. Ultimately, if in the course of human events we continue to mimic the behavior of our forefathers, it should be entirely in the pursuit of justice, equality, and happiness.

¹⁸ Finn, "The Constitution Doesn't Have a Problem with Mask Mandates."

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- Beiner, Guy. *Pandemic Re-Awakenings: The Forgotten and Unforgotten 'Spanish' Flu of 1918-1919*. Oxford University Press, 2022. This book was crucial for this year’s Inaugural *Oracle* Journal conference, where I used several pages (as noted above) and dissected many chapters to support my thesis. There have been many times in which the United States and other countries have opted *not* to consult historical resources when making important decisions, which more often than not leads to the same consequences as before. Guy Beiner’s *Pandemic Re-Awakenings* highlights some of the most challenging obstacles we’ve had to overcome both during and after this generation’s pandemic, providing the structure for this year’s spring conference.
- Chang, Mei-Chung, et al. “The Effect of Religion on Psychological Resilience in Healthcare Workers during the Coronavirus Disease 2019 Pandemic.” *Frontiers*, Frontiers, 1 Jan. 1AD, <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.628894/full>. I found this source in my preliminary research and found that it made a lot of great points about the connection between religious values and psychological responses to trauma. The data was taken in Thailand amongst frontline workers who practiced a wide variety of East Asian religions like Buddhism, Hinduism, Christian denominations, and traditional polytheistic practices. This variety reemphasized some of the points I knew I wanted to make while outlining my rough draft, and it was helpful while undertaking this project.
- “A City under Quarantine: Atlanta and the 1918 Influenza Epidemic.” *Atlanta History Center*, 16 Aug. 2021, <https://www.atlantahistorycenter.com/blog/1918-flu-pandemic-in-atlanta/>. I incorporated one of the images from this website into the paper itself, Image 1, as an example of the lengths that military personnel went to keep the flu at bay. It was difficult for them to do so while the troops were being sent overseas, but their efforts saved thousands of lives and are an example of the successful initiatives of front-line workers that we still use today.
- Dolan, Brian Ph.D. *UC Berkeley - Escholarship.org*. <https://escholarship.org/content/qt5q91q53r/qt5q91q53r.pdf?t=qb0681>. Dr. Dolan was particularly helpful in my understanding of universal compliance, which later gave me the idea of returning to original political and philosophical sources like those of John Locke, John Stuart Mill, and Alexis de Tocqueville. His publication, “Unmasking History,” is much longer than my own, but still was concise enough to provide lots of information on the medical humanities. He included lots of ethics and philosophical

ideas, and balanced the two with hard evidence from major historical events, here and elsewhere.

Dreazen, Yochi. "They Publicly Denounced Him. Now Never Trumpers Want Jobs in His White House." *Vox*, Vox, 11, Nov. 2016, <https://www.vox.com/policy-and-politics/2016/11/11/13593254/president-donald-trump-administration-cabinet-gop-nevertrump>. The term "Never Trumper" has been used in recent years, but not very universally. The Republicans who in recent years decided to disassociate from the party have formed groups like the Lincoln Project together in hopes of dismantling Trump's presidency. This article was published in 2016, long before any of Trump's difficult policies went into full effect, but the animosity found amongst the White House staff and the public remains to be seen. This piece was critical in drawing the connection between the Trump following and Anti-Maskism, as his campaign trail promoted the authentic American ideas that our forefathers used to establish the nation.

France-Press, Agence. "Trump More Likely Than Not Obstructed Congress: US Court on Capitol Riots." *NDTV.com*, NDTV, 28 Mar. 2022, <https://www.ndtv.com/world-news/us-capitol-violence-donald-trump-more-likely-than-not-obstructed-congress-us-court-on-capitol-riots-2848932>. I used this source for the image above on the Capitol Riots, but the article itself is interesting because it describes the unique situation we had where the former president did not have the support of his congress. For times like this and many others during his presidency, the government communicated many conflicting messages, some of which led to the behavior of mistrusting Anti-Maskers.

John E. Finn Professor Emeritus of Government. "The Constitution Doesn't Have a Problem with Mask Mandates." *The Conversation*, 14 Oct. 2021, <https://theconversation.com/the-constitution-doesnt-have-a-problem-with-mask-mandates-142335>. Unlike the source before this, this is a time in which Congress had to prove that the mask mandates in effect *were* constitutional, in an attempt to debunk the theories of those who protested. The theories themselves were baseless and fundamentally wrong, but they were popular enough to draw the attention of even the highest proponents. This source provided me with an image and information, used in the latter half of my research.

Kim Andrew Wooyoung, et al. "Evaluating the Mental Health Impacts of the COVID-19 Pandemic: Perceived Risk of COVID-19 Infection and Childhood Trauma Predict Adult Depressive Symptoms in Urban South Africa." *Psychological Medicine*, Cambridge University Press, 8 Sept. 2020, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7520640/>. While this article collected data from urban South Africa only, the information provided was generally applicable to most urban environments where the youth was greatly impacted by the strain of COVID-19. The source provided data from medical professionals and researchers who were attempting to predict the future need for mental health workers when these "pandemic children" reach adulthood. It focused on demonstrating the need for issues of mental health to be taken more seriously and proving that they can indeed shift between generations and their generational experiences. Whether or not these disorders may be

genetically redistributed is hard to say, but it's clear that the world is due for a change, and soon.

Leibovich, Mark. "Trump Has Called His Supporters 'Disgusting.' Do They Care?" *The New York Times*, The New York Times, 10 Oct. 2020, <https://www.nytimes.com/2020/10/10/sunday-review/trump-supporters.html>. This article helped demonstrate the strange relationship between Mr. Trump and his following. Those who supported him during his former and re-election campaigns were well aware of his spewings online (which got him removed from the sites) and yet continued to pledge loyalty to a man who evades them. His consistent, painful remarks not only were directed at them but, were also directed at the same marginalized groups who had cried desperately for change in the Summer of 2020. Their efforts were not entirely obsolete, but the effect they seemed to have on the president was insignificant if any at all. This was again useful in my articulation of his demeanor, wherein it directly correlates with the behavior of Anti-Masks.

Locke, John, et al. *Second Treatise of Government; and a Letter Concerning Toleration*. Oxford University Press, 2016. This was a source that I was hesitant to read but knew that there was a chance it may still apply. The age of this source (and de Tocqueville's like it) are from decades before any of my historical examples occurred, leaving me to question how much of their work would apply to my research. I only was able to quote Locke once, but I appreciated that he was an outsider whose work was inspired by the events of the New World.

Loud, Nicholas. "The Anti-Mask League of 1919: The Cultural Battle of an Enduring Pandemic." Untapped New York, July 15, 2020. <https://untappedcities.com/2020/07/15/the-anti-mask-league-of-1919-the-cultural-battle-of-an-enduring-pandemic/>. I did read through this article and cited it once, however, I found it with the intent of using the image of an old ad for an Anti-Mask League protest. This (and the citation below it) was crucial in my understanding of how severe political protesting during this pandemic was in comparison to the events of the 1918 Flu.

Nania, Rachel. "What to Know about a Fourth Wave of Covid-19 Cases." *AARP*, 8 Apr. 2021, <https://www.aarp.org/health/conditions-treatments/info-2021/covid-4th-wave.html>. Writing research on whole pandemics is hard when you've only lived your own experience, so this AARP page was useful because it provided me with real information on how it could affect different populations and people. The page as a whole is entirely informational, but it's information that can be used to show the lengths we must go to to protect ourselves (and how easy it is to find real credible sources).

Smith, Kiona N. "Protesting during a Pandemic Isn't New: Meet the Anti-Mask League of 1918." *Forbes*, Forbes Magazine, 23 June 2020, <https://www.forbes.com/sites/kionasmith/2020/04/29/protesting-during-a-pandemic-isnt-new-meet-the-anti-mask-league/?sh=3d6c8c2f12f9>. The protesting done in the past was largely considered to be the exception of the American people who knew mask-wearing

would protect them, but in the hands of social media during the 2020 pandemic, these ideas were at the forefront of magazines, news channels, and graffiti. This, and the article above by Nicole Saraniero, gave me a connection I needed to draw between the two, backed by even more information I found in Beiner's *Pandemic Re-Awakenings*.

Stewart, Emily. "Anti-Maskers Explain Themselves." *Vox*, Vox, 7 Aug. 2020, <https://www.vox.com/the-goods/2020/8/7/21357400/anti-mask-protest-rallies-donald-trump-covid-19>. Emily Stewart's quote on Anti-Mask explanations was crucial for my paper. I needed to prove why American citizens in particular have such a hard time following the same rules of the nations around us, and both this source and the words of de Tocqueville helped make that connection. Her work went far beyond just the quote that I utilized, and it's worth re-visiting it for psychological evaluations.

Tocqueville, Alexis de, et al. *Democracy in America*. Library of America Paperback Classics, 2012. The words of de Tocqueville have been used in academia for centuries, and my paper would not be as secure without them. As a French citizen, his foreign view demonstrates the perspective of those who observed American history in real-time from abroad. He praised American politics (at the time) for their significant dedication to one another and hoped that we may be a model for those around us. In this respect, we might have disappointed de Tocqueville, but his theory regarding the strength of American nationalism remains to be true today.