Reimagining Whiteness in the American South: The Role of Country Music PSAs in Redefining COVID-19 Vaccine Hesitancy

By

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Thesis

Submitted to the Faculty of the

Graduate School of Vanderbilt University

in partial fulfillment of the requirements

for the degree of

MASTER OF ARTS

in

Medicine, Health, and Society

August 31, 2021

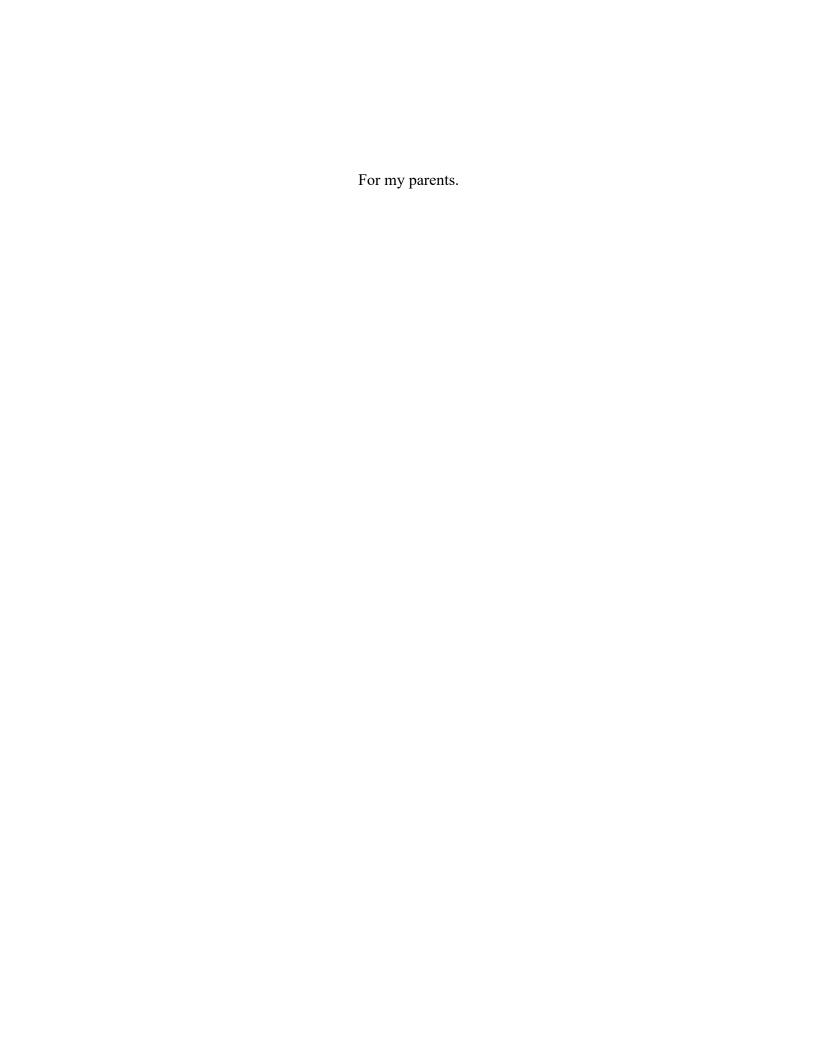
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ACKNOWLEDGEMENTS

Writing a thesis has been one of the great triumphs of my life. A lesson in tenacity, perseverance, accountability, and bravery, my master's thesis was a period of immense personal growth that supersedes the words on these pages.

The most prolific support for my personal and academic victories was my advisor, Dr. Danielle Picard. She was not only a limitless academic resource and editor extraordinaire, but a therapist, an inspiration, and a friend. Dr. Picard's grace and passion for her roles as advisor, administrator, educator, scholar, and mother has been a major inspiration for me as a young professional (and for many other folks in the program). This thesis project would not have been possible without her ceaseless, impossible willingness to help us students navigate scholarship and young adulthood. Thank you, Dr. Picard.

To the other members of my thesis committee, Dr. JuLeigh Petty and Dr. Jonathan Metzl, thank you for your advice, your encouragement, and your investments towards my success in this program. Also, to my steadfast friends and dedicated writing partners, Katie Phillips, Gabrielle Dyson, and Cecile Saleh—thank you. Your insights and reassurances were invaluable.

To my roommate, Rachel Gross, who accompanied me during the most unprecedented years of our lives. We may not have left our apartment besides essential runs to the mailbox, but I would not have surmounted my emotional, social, personal, and academic goals without your unwavering support. Hundreds of hours in this apartment weren't nearly enough.

To my friends in Nashville, thank you for your camaraderie, laughs, and feedback.

Solidarity within our cohort and pointed moments of pandemic-style socialization were essential.

Special thanks to Puja Jagasia, Katie Phillips, Witt Fesmire, Sarah Marriott, and Ryan Hale.

To my family and friends at home, thank you for empowering my endeavors both academically and beyond. Thanks to my siblings Gus Post, Sophia Post, Amanda Post, and my friends Lindsey Blandin and Maggie Grabowski. Comforting my tearful facetimes, raging phone calls, daily victories and late-night insecurities gave me the strength to earn my master's degree happily and healthily.

Finally, I am forever grateful for my inhumanely patient and endlessly supportive mother, Sarah Post. She is the sole reason that I could dream of pursuing another degree and a healthy home in Nashville. My mother shares my victory in submitting this project.

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LIST OF ABBREVIATIONS

ACM Academy of Country Music

CDC Centers for Disease Control and Prevention

COVID-19 Coronavirus Disease 2019

DOH Department of Health

FDA Food and Drug Administration

HPV Human Papillomavirus

KFF Kaiser Family Foundation

NIH National Institutes of Health

POC People of Color

SDOH Social Determinants of Health

VUMC Vanderbilt University Medical Center

WHO World Health Organization

INTRODUCTION

After astonishing COVID-19 vaccine success in early 2021, President Joe Biden missed his goal for 70% adults to be vaccinated by Independence Day. Although meeting and exceeding his previous goals, coronavirus vaccination rates have dipped from about 500,000 to 200,000 people per day in June 2021, a period that was supposed to be a "month of action" (Stolberg & Walker, 2021). Vaccine hesitancy and resistance is a significant threat to herd immunity against a global pandemic crisis of immense human, economic, and social consequence (United Nations, 2021). Unfortunately, the United States' COVID-19 vaccine supply is exceeding demand due to tenacious hesitant and resistant groups (Hamel & Brodie, 2021).

The Tennessee state government has not improved vaccine confidence after firing senior COVID-19 vaccine official, Dr. Michelle Fiscus, as positive coronavirus cases yet again rise rapidly for a fourth surge (Kelman, 2021). As such, current American politics can and do threaten scientific public health authority. Institutions that demonstrate anti-science attitudes are creating disunified, ineffective pandemic management efforts-- discouraging vaccinated Americans who are patiently awaiting the rest of the country to follow suit towards ending the health crisis. As a result, non-governmental entities across the country have reacted with campaigns of their own to advocate for science and public health authority in the form of COVID-19 vaccinations.

Vaccine hesitancy has multiple definitions, but generally refers to an individual who delays accepting an accessible vaccine, and when explicitly polled about vaccination intentions, indicates "unsure," "probably not," or "wait and see" (KFF, 2021; U.S. Census Bureau, 2021; Schumaker, 2021; CDC, 2021; Butler, n.d.). Although early 2021 researchers focused much on vaccine hesitant people of color (POC), later April poll data showed that, on average, adults most

likely to hesitate COVID-19 vaccinations were white (U.S. Census Bureau, 2021; Civiqs, 2021). Especially represented were evangelical Christians (KFF, 2021; Hoffman, 2021), people without college degrees (U.S. Census Bureau, 2021; KFF 2021), young people under 55 (U.S. Census Bureau, 2021; KFF, 2021), those in rural areas (KFF, 2021; Hoffman, 2021), Republicans (KFF, 2021), and Donald Trump supporters in the 2020 Presidential Election (Ivory et al., 2021).

As overwhelming blue-collar and white, country music audiences share qualities with current vaccine hesitant groups. As a result, country music starts partnered with Vanderbilt Health and the Academy of Country Music to issue public service announcements (PSAs) advocating for COVID-19 vaccinations (Billboard, 2021). In order to appeal to hesitant audiences, the PSAs producers and musical partners participated in a discourse around imagined users and nonusers. Examinations of this discourse highlights particular tropes and ideals of the rural, white middle/working class Americans.

In this paper, I show that the Nelly Oudshoorn's (2000) "imagined user" framework for studying rhetoric provides a helpful window into how country music pro-vaccine PSAs were complicit in promoting harmful whiteness norms in COVID-19 discourse. By analyzing imagined vaccine usership as deliberate influences on social narratives for better vaccine uptake, I deconstruct underlying value systems affecting health attitudes and behaviors in the United States during the pandemic. VUMC and the ACM's pro-vaccine campaigns replicated American whiteness hegemonies that continue to produce disparate health outcomes, catalyze political polarization, and undermine goals for dismantling violent white male supremacist structures in society.

Theories of whiteness often focus on the ways in which dominant white male norms affect health attitudes, behaviors, and outcomes through focus groups, interviews, and literature

analyses (Malat et al., 2018; Metzl, 2019). This research identifies and interprets whiteness through the rhetoric of country music COVID-19 vaccine PSAs to inform better science communication practices both during and beyond the coronavirus pandemic

The remainder of this paper is structured as follows. The literature review outlines key definitions of whiteness, vaccine hesitancy, masculinity, neoliberalism, discourse analysis and imagined usership in the context of post-Trump America and the 2020-2021 coronavirus pandemic crisis. As a semiotic and discourse analysis, the methods section specifies the sample PSAs as well as the elements involved in constructing imagined users and nonusers from the videos (e.g. language, music, settings, tone, and message). Furthermore, the results and discussion section names and interprets imagined usership within theoretical frameworks of whiteness, masculinity, and neoliberalism. Resulting PSA themes are contrasted against the racialized values represented in other pro-vaccine PSAs by Tennessee DOH officials. The conclusion contextualizing whiteness as a cog in a complex race hegemony that produces negative public health outcomes for all Americans and reinvigorates polarization. I then suggest ways to improve science communication and avenues for further research of discourse in public service announcements.

LITERATURE REVIEW

The sociopolitical climate of the 2010s and 2020s has become plagued with epidemics of misinformation. Whether it be election results, climate change, government conspiracies, the integrity of the press, etc. institutions have been challenged—scientific authority and research is no exception (Zucker, 2020). Anti-vaccine rhetoric, conspiracy theories, and social media groups thrive by sowing fear, confusion, and even anger about vaccines while undermining the severity of vaccine-preventable diseases (Chou & Budenz, 2020). These "disinformation campaigns"

served as catalysts for widespread vaccine hesitancy and resistance in the United States.

Unfortunately, fear-based attitudes all too often supersede scientific expertise about the virus and how to mitigate it (Chou & Budenz, 2020). Misplaced trust in misinformation has meant that groups who accept vaccine-related conspiracies are significantly less likely to vaccinate themselves against COVID-19 (Ruiz & Bell, 2021).

Vaccine hesitancy and resistance are main factors prolonging the coronavirus pandemic that has already killed over 610,000 people in the United States since March 2020. Hope for eliminating the pandemic means reaching herd immunity: a high threshold of individuals immune to the virus so that there is a very minimal threat of non-immunized people getting infected (WHO, 2020). Because the coronavirus has proved to be so lethal, the WHO (2020) contends that letting the American masses become immune to the coronavirus via previous infection would lead to more illness and lost lives. Therefore, vaccinations are the only humanitarian way to reach herd immunity and call an end to a costly global pandemic. Achieving herd immunity would mean convincing millions more Americans to get vaccinated against COVID-19. Unfortunately, as I mentioned above, people continue to hesitate and resist despite ample vaccine supplies.

In the presence of heightened polarization, public health has taken a back seat and put millions at risk of more biological, social, economic, and emotional tolls because of a prolonged pandemic (Harrison & Wu, 2020). Americans are entitled to refuse or adopt healthcare as one sees fit; however, the long-term social control of diseases (and resulting pandemics) is contingent on investments in preventative medicine and vaccine technology. The sizable portion of Americans who have resisted the novel COVID-19 vaccine have inhibitions about governmental interference and racial hegemony that cannot be assuaged by logic alone, but rather by providers

and other public health authorities who understand nuanced American decision making (Chou & Budenz, 2020). That said, more localized concerted efforts to improve vaccination rates and (eventual) herd immunity have launched to try and persuade vaccine acceptance.

This literature review section starts by defining vaccine hesitancy and vaccine resistance in 2021. The definitions are followed by a discussion about the role of discourse and imagined users on the cultural feasibility of coronavirus vaccines. Then, I discuss partisanship and how a Trump-era sociopolitical climate in the United States further polarized the coronavirus pandemic. I draw in theories of whiteness and neoliberalism to frame and explain the reasons for vaccine hesitancy within middle-to-lower class white populations. Finally, I qualify why country music vaccine PSAs are appropriate for communicating with nonusers.

What is Vaccine Hesitancy?

Vaccine technologies have been a polarizing social issue long before the coronavirus pandemic started – in fact, dissenting opinions date to the first vaccine protocols for smallpox in 1796 (CDC, 2021). More recent vaccine histories reveal that vaccine hesitancy continues to be a concern for public health agencies. For example, in the early 21st century, measles and pertussis outbreaks happened both in the United States and Canada as a result of vaccine hesitancy and resistance (Sanders & Burnett, 2019). The problem of resistance and hesitancy is more acute for elective vaccines – as opposed to ones required for public school entry like measles. Elective vaccines – such as the one for the sexually transmitted Human Papillomavirus (HPV) – have a low adoption rate in the United States. Although the HPV vaccine Gardasil protects against the most common sexually transmitted infection and a known risk factor for many reproductive cancers, primary care providers struggle to convince American parents to vaccinate their

adolescent children. For example, in Minnesota, hesitant and resistant parents primarily denied sexual activity, denied their child's likelihood contracting HPV, and expressed discomfort with conversations about sex (McRee et al., 2014). Five years after those data were published, clinical research in Tennessee pointed to parental reservations about Gardasil's safety. Differences in vaccinations can reflect concerns ranging from state interventions, individual autonomy, and perceptions of the body (Sanders & Burnett, 2019). In that case, it is not surprising to find vaccine hesitancy and resistance are influenced by sociopolitical climates – distinct by race (Jamison et al., 2019), by generation (Jamison et al., 2019), and by political party (Kempthorne & Terrizzi, 2021).

The coronavirus pandemic has exemplified the role of partisanship in vaccine hesitancy and resistance as well. As of June 10, 2021, between 44% and 46% of self-reported Republican men and women indicated that they would say "no" to an available COVID-19 vaccine (Civiqs, 2021). On the other side of the aisle, self-reported Democrats maintained 4% vaccine hesitancy and resistance (Civiqs, 2021). In 2020, the intent to get vaccinated against COVID-19 was lower for Fox News consumers—a popular conservative-oriented media giant—than liberal-leaning news outlets CNN or MSNBC (Ruiz & Bell, 2021). These findings were corroborated by the Kaiser Family Foundation in late June of 2021, with data reporting that self-identified Republican men and women were nearly 30% less likely to be vaccinated than their Democrat counterparts (Hamel et al., 2021).

As a result of the politicization of the COVID-19 vaccine, much research has gone into the phenomena of vaccine hesitancy and resistance. Most scholars see vaccine hesitancy and resistance as related yet distinct ideas (Edwards et al., 2021; Murphy et al., 2021). Murphy et. al. (2021) deem hesitancy as referring to someone unsure about taking a vaccine while vaccine

resistance is one who is definitively against it. The public service announcements that I analyze in this thesis project are designed to persuade those who are vaccine hesitant, because resistance is much more unlikely to be swayed.

Vaccine Hesitancy Discourse

To understand the concepts of vaccine hesitancy and resistance, this thesis uses the framework of imagined users to analyze how public service announcements were targeted to white, non-college-educated, middle to lower class Americans who hesitated to receive an available COVID-19 vaccines in the first half of 2021. "Imagined users" of technology are rhetorical tools that stakeholders use to portray the cultural feasibility of a product (Oudshoorn, 2000). When pitching a new technology, different stakeholders construct imagined users as a way to voice their assessments of the potential public response (i.e., will this product be successfully received or will it flop?), which in turn can influence actual users of technologies. Proponents and opponents of a technology may construct different imagined users of a technology. For example, advocates for mandating mask-wearing during the coronavirus pandemic may have portrayed an imagined user who adheres to public health advise and prioritizes collective wellbeing over personal comfort/liberty. On the other hand, opponents to mask mandates could think in different terms; they perhaps construe imagined mask users as unreliable and individualistic, thus undermining the point of mask wearing altogether. As such, someone versed in conservative, neoliberal discourse may argue the latter.

Discourse about vaccines that affected imagined usership is created through both bottomup networks/value systems as well as top-down institutional communications. Large authorities in vaccine technology are not limited to the likes of experts in the FDA, NIH, or CDC, but also knowledge created by private, local, and even non-scientific realms. Voices that are familiar and trustworthy are best at reaching diverse publics with scientific information (CERC, 2019).

Because of suboptimal demand for vaccinations in rural, white, conservative populations, institutions outside federal government and even outside healthcare became COVID-19 vaccine advocates.

Discourse has the power to affect attitudes and behaviors that could undermine public health interests for coronavirus mitigation. The coronavirus vaccines were developed with intended users in mind: those who trust scientific research, disease control and government advise. Therefore, VUMC and the ACM developed public service announcements targeted at nonusers who do not share those values in science and big government. Green and Van Oort (2012) explain that PSAs guide, filter, and circulate narratives that alter, reinforce, or add to existing norms. In this thesis, pro-vaccine PSAs interact with whiteness scripts in the United States that are characteristic of nonuser populations.

The study of the discourse surrounding the uptake of vaccines is a facet of Science and Technology Studies (STS): a discipline investigating the ways in which scientific knowledge and technologies are dynamic, social constructs that reciprocally affect social environments (Sismondo, 2009). Therefore, COVID-19 vaccines are inherently socialized technologies that have affected societal realities in the United States. For example, the politicization of the coronavirus vaccines may have caused Republican-identifying individuals to lose trust in scientific authorities. Given the reflexive properties of science and technology on society, studying the coronavirus vaccine narrative is important to understand how discourse affects public health attitudes as well as social norms. Implicating historically oppressive hegemonies of

whiteness, masculinity, and neoliberalism can cause potential damage towards pandemic mitigation now, as well as damage social justice reforms that determine outcomes down the road.

Whiteness, Neoliberalism, and Trump-era Politics

Traditions of oppression against the likes of women, POC, and immigrants are deeply embedded in theories of whiteness. Whiteness is a framework for understanding society from the perspective of white men and identifying how histories of privilege have contributed to the lived experiences now (Garner, 2007). With an understanding of white people as just as racialized as non-white, academics can conceptualize how whiteness affects social, political, economic, and health outcomes in society. Garner (2007) claims that whiteness in culture is successfully maintained in both micro- and macro-level social relationships. I extend his argument by conceiving of COVID-19 vaccine attitudes as perpetuated by interpersonal, community-based interactions as well as by social structures that prioritize the interests of white men in the U.S.

Like discussions about race, neoliberalism is a catalyst of polarization in the United States. Neoliberal conceptions about socioeconomic meritocracy have created vaccine hesitancy and resistance within populations of white, middle to lower class men. In the second half of the 20th century and well into the 21st, downshifting social statuses in rural, blue-collar populations pushed many white men towards populism to rage against economic losses. Lost capital to other countries, to immigrants, to women, or to people of color equated to white male humiliation (Kimmel & Ferber, 2000).

Internalized neoliberal, meritocratic systems that correlate self-esteem with status and success. Therefore, as triumphant as capital success can be (like achieving the American Dream), failure is irrefutable shame and self-doubt; there is only you to blame for your poor outcomes

(Malat et al., 2018). Maureen Sioh (2018) contends that socioeconomic failures under neoliberal mentalities are traumatic for the individual psyche. That fear of trauma is what motivated many middle/working class white men to vote for a notoriously sexist, xenophobic, racist candidate who promised returned American economic gains (Sioh, 2018; Blair, 2017). In that way, neoliberal ideologies are important indications of one's motivations and decision-making processes about health as well.

Unfortunately for vaccine uptake, neoliberal beliefs consist of core tenets revolving around decentralization, deregulation, and individualism (Sanders & Burnett, 2019). The pandemic has pushed back on these values; centralized public health entities have been regulating businesses, mask-wearing, and social activities since March 2020. That given, neoliberal-leaning middle- to working-class white men have chosen to remain obstinate against vaccinations as a semblance of preserving individual autonomy against centralized health advice. Additionally, decentralization values not only undermine state authority but scientific authorities. For example, Americans who put "complete" faith in doctors and government websites are "very unlikely" to be vaccinated against COVID-19 only 2% of the time. Of those who trust Donald Trump "completely," 48.5% are "very unlikely" to be vaccinated (Tufts University, 2021). And while he may not have instigated vaccine hesitancy explicitly, Donald Trump's presidency provided a platform for white American, insecure in their social statuses, to rage against central government advice during a time when unity was necessary to eliminate an unprecedented health crisis.

The effect of Donald Trump on polarizing Americans' attitudes about the coronavirus vaccines has been immense. Trump received his vaccine for COVID-19 in secret while spreading the "Big Lie" about the illegitimacy of the Biden administration. This has left a large portion of

Trump's constituents misguided about the authority, credibility, and trustworthiness of official pandemic efforts and vaccine information (Cillizza, 2021). In April 2021, rural counties with low college graduation rates and middle-to-low-income residents were the least vaccinated of all American counties (Ivory et al., 2021). The residents of these counties were in fact majority Trump voters in the 2020 presidential election. In counties where Trump *dominated* voting (margin of 50+ points), adult vaccinations were even lower (less than 25% vaccinated) (Ivory et al., 2021). Of those who showed up to vote, exit poll data showed that white people constituted the majority (58%) of Donald Trump's voter base (New York Times, 2020), as well as even larger rates (67%) from white non-college graduates (New York Times, 2020). In the next section, I detail how critical components of Trump's voter base-- rural, middle- and low- income white people—have become perpetrators of vaccine hesitancy and resistance in the United States.

Whiteness and the Middle/Working Class

Where white elites enjoy the advantages of privilege and capital, white working-class

Americans suffer many poor health outcomes because of neoliberal definitions of success. While
both POC and white Americans are harmed by whiteness, literature about race as a determinant
of health is more visible for populations of color.

The difference between violence against non-whites and violence against white people is the illusion of beneficence. While still benefitting from white privileges that prefer them to people of color (seen in structures causing and maintaining the American white/black wealth gap), middle- to-lower SES whites do not reap the same advantages that traditions of white supremacy have carved out for white elites. As such, lower SES white people experience more

suicidal ideation and psychiatric disorders than their wealthy white counterparts in society (Malat et al., 2018). Middle- and lower-class white people help elites maintain a façade of class-independent white dominance with neoliberal, "post-race" ideologies, but experience negative outcomes from whiteness structures. Even if a health policy would definitively benefit middle and low SES whites in the U.S., those populations would not support that measure if in the same "networks" as minority populations (Metzl, 2019, p. 121-127). Metzl (2019) argues that white masses maintain xenophobic and racist structures at the expense of their own bodies. This thesis project adds to the idea of non-elite whites as martyrs for white supremacy ideals by framing vaccine hesitancy as a way for partisan media and politicians to undermine big government via vaccine uncertainty and disinformation. Lower class, non-college educated, white people who then resist COVID-19 vaccines at the beck and call of partisan politics must then pay the price for expensive medical treatments when serious illness effects cause them to be hospitalized. Social class is how whiteness culture stratifies white people; therefore, invisibly harming non-elite white Americans.

Whiteness theories juxtaposes the overt challenges of non-whites in society with the poor wherewithal of white people and the ways that they are racialized in a white-dominant society. Characteristically, white people tend to be unable to identify racialized structures affecting (either positively or negatively) their own lived experiences (Bonilla-Silva, 2012). That said, one intention in creating this thesis project is to illuminate some of the hidden structures of whiteness that exacerbate violence for American people. Especially so, I hope that white people reading this essay can critically identify and evaluate the ways that their racialized attitudes and beliefs may be maintaining white elitism.

Country Music's COVID-19 Public Service Announcements

Due to patterns of the conservative white middle and working class and low vaccination rates, institutions in Nashville, Tennessee devised PSAs targeting country music audiences. It may not be a stretch of the imagination to link rural, blue-collar, white people with country music. Tropes of "hillbillies," "rednecks," and "country boys" allude to the rural white workingclass in the American South. While the melodies, voices, instruments, and craft of country music may not necessarily implicate politics, music has implicit sociopolitical frames established by fanbases, lyrics, and celebrity (Feder, 2006). Music cultures are politically distinct because of implicit support, apathy, or dissent towards society (Shonekan, 2015, p. 134). When the Dixie Chicks (now "The Chicks") denounced Former President George W. Bush for violently retaliating against the Taliban in the wake of 9/11, country music fans quickly ended the women's fruitful careers: country audiences demanded the Chicks' songs be removed from radio setlists across the United States (Shonekan, 2015, p. 135). Another example of political bias in country music happened when country star Hank Williams Jr. publicly likened former president Barack Obama to criminal fascist Adolf Hitler, which resulted in his song being removed from Monday Night Football broadcasts. At his next public stage appearance, country music fans offered Williams Jr. a standing ovation (Shonekan, 2015, p. 136). Like Williams Jr., some musicians do overtly display personal politics (e.g. Toby Keith, Kanye West, etc.). However, the ways in which mass audiences consume and react to song lyrics and those celebrity platforms implicate music subcultures.

Country music audiences have long been documented as distinctly young, white, working-class people who share nostalgic feelings about religion, patriotism, and the American South with country singers and songwriters (Shonekan, 2015). Although non-white people do live and identify with southern culture, Southern black communities listened to other non-geographically bound black musicians (i.e., tuning into Chicago jazz artists) (Shonekan, 2015, p. 76). Therefore, the audiences for southern country music were definitively *white* southerners. In 1975, Richard Peterson and Paul DiMaggio claimed that crowds of country music radio listeners, Grand Ole Opry goers, concert attendees, and record buyers were "almost entirely white." Furthermore, the two men chatted about overrepresentations of "skilled and semi-skilled blue-collar occupations" and near absence of white-collar professionals (Shonekan, 2015, p. 75). That given, the nearly homogeneous demography of country music audiences meant that fans harbored similar politics.

Politics in country music highlights many of the ways that the white, middle to lower class populations understand society. Identifying with songwriters who "pulled themselves up by their bootstraps" means that working-class white people value neoliberal ideals. The ideological relatability in country music made musicians into political figureheads. In the interests of publicity, country stars publicly endorsed Richard Nixon for president in the election of 1968.

Nixon then declared a national country music month in October of 1970. Again in 1972, the Country Music Association even crafted a compilation album called "Thank you, Mr. President" with songs reflecting the traditional conservative values that Nixon embodied in his presidency: heterosexuality, working-class pride, and pro-war sentiments (Feder, 2006). Because capital enterprise linked country music with American conservative politics in the latter half of the twentieth century, country music continues to be a conservative marketing strategy well into the

twenty-first. In this way, using country music stars as spokespeople in current pro-vaccine PSAs may be effective in creating a culturally-feasible conservative, middle to lower class, neoliberal, white imagined users.

Imagined Users in PSAs

Increasing vaccinations in the United States means inciting behavioral change on a social scale. Therefore, various institutions with stakes in ending the coronavirus pandemic created PSAs and other information campaigns targeting those who continue to resist vaccines. Public service announcements identify and market an agenda, like COVID-19 vaccine uptake, to a broad audience in hope of impacting a desired change (Inci et al., 2017). This thesis project does not attempt to evaluate the efficacy of public service announcements but rather to deconstruct the implicit narratives and assumptions about COVID-19 vaccine usership. How the construction of imagined users in pro-vaccine country music PSAs approaches COVID-19 vaccine discourse can either systematically attack whiteness and neoliberalism or enable those beliefs.

METHODS

The purpose of this study was to identify and analyze how country music actors and communicators from the ACM and VUMC created imagined users of COVID-19 vaccines who embody neoliberal and hypermasculine ideals in country music PSAs. Discourse analysis of the video communications included language, audio, and visual aspects. The combination of scripts, settings, and other technical elements of the PSAs reflect deliberate constructions of imagined vaccine users and imagined vaccine nonusers. This research was a semiotic and discourse analysis of public service communications COVID-19 vaccine technologies; therefore, situated within the interdisciplinary field of Science and Technology Studies (STS).

The evidentiary announcements originated from Nashville, Tennessee—a hub for both country music and medical innovation (Vanderbilt University was the site of Moderna mRNA COVID-19 vaccine development in 2020). Published in April and May of 2021, medical and commercial institutions VUMC and the ACM partnered with country celebrities Dolly Parton, Brad Paisley, Darius Rucker, Ashley McBryde, and Eric Church to create pro-vaccine PSAs in the interest of public health.

The corpus featured four public service announcements by either Vanderbilt University Medical Center or the Academy of Country Music. Of the partnerships with Vanderbilt Health, one video showcased country singer-songwriter Dolly Parton and two videos featured country star Brad Paisley. Other data sources were media announcements from the Academy of Country Music (ACM), airing during an April 18, 2021, awards show and including highly visible country musicians Eric Church, Darius Rucker, and Ashley McBryde.

Sampling was based on location (Nashville), spokespeople (country music stars), format (public service announcement) and messaging (COVID-19 vaccine promotion). The sample selected was not exhaustive of all collaborations between country music's and COVID-19 pandemic campaigns, but rather those that were published with the intent to promote vaccines for public broadcast on cable television (e.g. Awards Shows), video streaming services (e.g. YouTube), and social media (e.g. TikTok, Snapchat, Instagram).

Analyzing public service videos entailed investigating the scripts' semantics: the connotations of words used to identify, describe, and prod nonusers. If audio overlayed the video, what sentiments did that intend to evoke and what did that say about imagined users' opinions? In order to appeal to targeted audiences, market research teams included these types of sings that were laden with social meanings (Green & Van Oort, 2013).

Semiotics and discourse analysis aimed to uncover the precise meanings attached to images, audio, and language in the public service announcements that contributed to imagined user rhetoric. Imagined users and nonusers were characters fabricated to uphold certain discourse and around vaccine users. Manipulating the narratives about vaccine uptake co-produced realities to cater towards VUMC and the ACM's agendas for ending the pandemic crisis. Engagement with vaccine discourse affects broader narratives of situated social climates and investigating the reciprocal effects of altered discourse allows researchers to plot social ideological trajectories towards or away from progress.

RESULTS AND DISCUSSION

The purpose of this study was to identify and analyze how private institutions Vanderbilt Health and the Academy of Country Music alongside country music partners created imagined users of COVID-19 vaccines who embody neoliberal and hypermasculine ideals that maintain white patriarchal dominance in the United States. The pro-vaccine rhetoric in 2021 country music PSAs grapples with narratives of autonomous consumerism, decentralization, and patriarchy that are rooted in historically violent whiteness structures. Academic and activist Andrea Smith (2020) contends that core white supremacist ideologies of slavery, genocide, and "Orientalism" maintain violent race and gender hegemonies in the United States. As such, dismantling white male supremacy means activism that evades and devises alternatives for historically oppressive social structures (e.g. elites governing non-elites, nuclear suburban family ideals) (Smith, 2020). When designing science communication targeting racialized groups, the

imagined user rhetoric interacts with whiteness norms that can either reproduce, extend, or challenge normativity through Smith's categories of oppression.

In this thesis, I argue that pro-vaccine discourse in country music COVID-19 vaccine PSAs enables hegemonic whiteness norms in order to promote short-term vaccination goals. Heather Akin (2017) may argue that the ethos and familiarity between country music stars and nonusers may be effective science communication practice by establishing trust with the viewership; however, I contend that the benefits of these country music vaccine PSAs are outweighed by harmful constructions of imagined users that feed into polarizing race discourse in the U.S.

This rest of this essay describes the ACM and VUMC's country music pro-vaccine PSAs as well as their creators/partners. Then, I walk through the constructions of imagined vaccine users and nonusers using audio, video, and language evidence from the PSA videos. The imagined usership is followed by an explanation about how these rhetorical characters fit within harmful whiteness structures. Next, I walk through the psychological underpinnings of science communication and offer recommendations for public health officials looking to promote health-oriented behaviors without contributing violence against minority populations. Finally, I remark about the significance of imagined users in relation to endemic polarization in the United States.

COVID-19 Vaccine PSAs

The first country music public service announcement featured singer-songwriter Dolly Parton, published to YouTube on March 3, 2021. Sitting in front of a wall plastered with Vanderbilt Health logos, Parton breaks into a rendition of her hit song "Jolene" cleverly replacing the namesake with "vaccine" to celebrate her vaccination. Parton addresses the viewer with a friendly "hey, it's me," as VUMC's Dr. Abumrad administers the Moderna COVID-19

vaccine-- which she took major part in financing. While speaking to the camera about her faith in science research in her signature Tennessee drawl, Parton exclaims, "I did it, I did it!" upon receiving her vaccine.

Also partnered with Vanderbilt Health, country singer Brad Paisley's two pro-vaccine public service announcements featured a montage of Nashville sports landmarks and notable sports constituents. The two were uploaded to Vanderbilt Health's YouTube page on April 19, 2021. Included were Vanderbilt University's Memorial Gym, head coaches of Vanderbilt Men's and Women's Basketball, Nashville Sounds' First Horizon Park, Nashville Predator's Bridgestone Arena, Predator's goalie Pekka Rinne, Tennessee Titan's Nissan Stadium, Anibal Godoy of Nashville Soccer Club, and more. Set with sentimental background music, somber faces, and the solemn tone of Paisley's voiceover, he pleads with Nashvillians to "be a fan, take the shot."

The final PSAs is the Academy of Country Music's "Lifting Lives" campaign, which aired on April 18th as part of the annual ACM awards. The video emanates similar melancholy, nostalgic tones to those of Brad Paisley's. Stage lights flash on alongside slow piano chords with low vocals in musical landmarks familiar to Nashville locals: the Ryman Auditorium and the Grand Ole Opry. Country music stars Eric Church, Ashley McBryde, and Darius Rucker step onto empty stages with shadowy lighting, each in turn address the viewer with pleas for "getting back to the moments we miss."

The Creators of COVID-19 Vaccine PSAs

VUMC and ACM were both stakeholders in pandemic mitigation. Returning to prepandemic functionality was the best financial outcome for the ACM; for-profit public concerts as well as advertisements/ratings that come with awards shows greatly improves business. However, virus mitigation made those types of public gatherings difficult, if not impossible, during 2020 and early 2021. On VUMC's end, minimizing staff burnout was imperative. As of 2021, hospitals had been in crisis mode for months on end; the physical and emotional toll of working as a medical professional during the coronavirus pandemic was immense and unsustainable. For the wellbeing of not only the health of the public but their overworked staff, Vanderbilt Health was motivated to minimize and eliminate the pandemic as soon as possible. Vaccines were an approved, evidence-based, optimistic solution for mitigating the coronavirus broadly, quickly, effectively, and safely (CDC, 2020). The public service announcements served as tools to spread information and encourage uptake of a promising technology that could ultimately usher in the return of typical industry functioning, namely in healthcare and entertainment.

Developing Tennessee-based PSAs meant negotiating messaging to cultivate vaccine acceptance without antagonizing or invalidating residents' ideologies. Both VUMC and the ACM serve broader Tennessee audiences-- a state of over 78% white people, over 72% of people without a bachelor's degree or higher, and lower median income levels than national averages (U.S. Census, 2019). Furthermore, seven of nine elected Tennessee congresspeople are members of the Republican Party (Congress.gov, 2021). Science communication scholar Heather Akin (2017; 2020) maintains that differences in values, ideologies, and demography shape the ways that people interpret science communication in order to protect in-group identities. I expand on that idea by arguing that numerous communities of white, conservative-oriented folks in Tennessee understand vaccines in terms of partisan media/politicians, neoliberalism, hegemonic masculinity, and white racialization. Therefore, country music stars serve as signposts to

traditional, rural, white, masculine values in the PSAs—a science communication strategy to engage target viewership.

The input of both Dolly Parton and Brad Paisley on Vanderbilt Health's PSAs is significant, as two figureheads of both country music and humanitarianism. In March 2020, Brad Paisley and his wife, Kimberly Williams-Paisley, founded a free grocery store to address food insecurity in the greater Nashville area. Six months later, well into the worst of the coronavirus pandemic, the couple donated an additional one million meals across the United States to aid widespread food inaccessibility. When talking to reporters about the COVID-19 vaccines, Paisley remarked about "deep diving" into conversations with licensed medical professional friends, and emphasized his understandings about the efficacy, safety, and wonder of vaccines as agents against the coronavirus (CNN, 2021). Akin (2020) explains that when science is implicated with partisanship, there is an expectation to interpret data in compliance with the existing group consensus. As an outspoken friend and representative of both major political ideology during the coronavirus pandemic, Brad Paisley embodies unity necessary to overcome Akin's claims about how polarizing political alliances are compromising public health information accuracy. Paisley publicly discussed friendships with Americans in both camps: scientifically inclined individuals trusting COVID-19 vaccines as well as hesitant/resistant folks science who may not inherently trust government regulations and/or science authority. The former group fits into liberal-leaning narratives in the United States of late: trust in central, scientific authority to act in the public's best interests by advocating for COVID-19 vaccines. On the other hand, the latter are more conservative-minded and likely reserved about widespread government compliance that vaccines entail. In either sense, Paisley's emphasis on unity in a

politically divisive social climate is an important facet to his PSAs that works to reinstate information accuracy and trust that has been broken down by the likes of sensationalized news.

Dolly Parton has built a reputation that juxtaposes her Tennessee roots with stardom. As the daughter of an illiterate, blue-collar father and "dirt poor" family in Appalachia, Parton's humanitarianism ranges from a free children's book programs to a million-dollar donation to Vanderbilt University Medical Center for coronavirus vaccine research (CNN, 2002; Hines, 2020). As a champion of east Tennessee, Parton's audiences live in white, conservative, and highly vaccine hesitant areas of the state. It is not a coincidence that VUMC partnered with two philanthropic, trusting of science, traditionally "country" music stars in their PSA campaigns. Parton and Paisley likely influenced the videos in order to tailor the science communication for effective and salient receptions among the white, middle to lower class, non-college educated audiences. As such, it is important to note that single actors and institutional forces impacted the creation of imagined users and nonusers in the PSAs.

The Construction of Imagined Vaccine Users

Together with Dolly Parton, Brad Paisley, Eric Church, Darius Rucker, and Ashley McBryde, VUMC and the ACM constructed a vaccine imagined user as an "Informed Bootstrapper" who is white, blue collar, individualistic, virile, and therefore honorable *because of choosing to be vaccinated*. On the other, the implied personas of those failing to be vaccinated (imagined nonusers) as misled, weak, and subordinate.

The "Informed Bootstrapper" weighs his own decisions about his own wellbeing and that of his immediate loved ones. Autonomy and individualism are values rooted in neoliberal narratives that maintain privilege as personal success rather than violent structures of racism,

sexism and other historical American bigotry. Phrases like "It's up to you" (Lifting Lives, 2021), "we want you to be on the best part of your seat..." (Vanderbilt Health, 2021), and "the thing that I miss the most is you" (Lifting Lives, 2021) are personalized PSAs messages that highlight individual interests rather than a collective public imperative. Somber, nostalgic tones from sentimental background music and images of empty venues and silent auditoriums imply a sense of missing out on experiences that were halted because of pandemic mitigation. The country stars partnered with the ACM and Brad Paisley are pleading in their videos for fans to return to their edge of their seats at sports games and live concerts. Undoubtedly, the benefit of returning to pre-pandemic serves individual health outcomes.

Autonomy enables whiteness structures by maintaining the semblance of successes and failures as undoubtedly earned. Because neoliberal ideals construe society as a meritocracy, it condones white male dominance as success rather than undeserved race/gender hegemonies. The "pull yourself up by your bootstraps" imagery ignores the structural barriers – including redlining, generational wealth, and labor market discrimination that privilege certain groups over others. Therefore, whiteness can also ignore the ways that structures help society. Since science and medical experts are those with knowledge about the development, safety, efficacy, etc. of vaccine technology, lay people are asked to trust authorities and comply with advice that may be difficult or impossible for them, as non-experts, to understand. Because white people in America may understand their success as individual merit, deferring their decisions about their own bodies and wellbeing to those of scientists and government is likely uncomfortable and counterintuitive. Vaccines are an example of limiting individual autonomy for the interest of collective health, and whiteness scripts are hesitant and resistant to compromising semblances of free will.

The "Informed Bootstrapper" is motivated by capitalizing on decisions as tools for personal gain. Staying informed and caring for one's own livelihood and immediate networks is a calculated investment in upward socioeconomic mobility through a neoliberal lens. The PSA scripts purposely feature individualized calls to action in order to appeal to neoliberal pillars of the autonomous consumerism. As Payne (2011) argues, neoliberalism conceptualizes consumers as volitional decision makers who influence governmentality. The case of COVID-19 PSAs reveals a continuation of autonomous consumerism as a driving force of health behaviors that in turn, affect how United States officials approach healthcare and communication. Rhetorically speaking, the PSAs construe COVID-19 vaccines not as centralized government regulations but rather calculated, informed decisions ultimately for individual benefit (e.g. returning to college/professional sports games or protecting one's family from disease). The "informed bootstrapper" is not concerned with altruism but rather using science and healthcare autonomy to care for the self and the interests of loved ones. As such, the imagined user embodies neoliberal ideologies of decisions as calculated consumerism.

Besides individualism, Sanders and Burnett (2019) maintain that decentralization and deregulations are core tenets of neoliberal ideology that contribute to vaccine hesitancy. Consequently, a decentralized, deregulated culture means individuals have the potential for acting in spite of evidence-based science and public health research. When federal and/or scientific authorities advise the public, neoliberalism states that individuals have the liberty reject government expertise and avoid regulating policies. During the COVID-19 pandemic, deregulation and decentralization became evident in populations who refused to heed virus mitigation advice and who delayed or avoided vaccines that had been proven both safe and efficacious. In this way, VUMC and the ACM were careful to keep the decision-making freedom

of imagined vaccine users while also fortunately advocating on behalf of scientific authority and advice.

Examples of volition in conjunction with science expertise in the PSAs are "Ask your doctor and get the facts" (Lifting Lives, 2021) and "it's so important to get informed" (Lifting Lives, 2021). In her PSA, Dolly Parton surrounds herself with signs for trust in science from her claims to being "friends for years" with Dr. Abumrad, to her testament to "waiting in line since December" for her chance at a vaccine. If neoliberal consumers are autonomous and considerate for themselves and others; the "informed bootstrapper" imagined user is all of those things with a foundation of research, information, and (hopefully) truth. Brad Paisley advocates adherence to public health advice when he says "When it's your turn to take the vaccine, be a fan. Take the shot" (Vanderbilt Health, 2021). In essence, one's "turn to take the vaccine" is a federal health recommendation about getting vaccinated; however, the imagined user's autonomy is preserved in choosing whether or not to actually "be a fan."

Imagined Users as Victims to Masculinity Norms

Another scaffolding for harmful whiteness norms in American culture that contributed to vaccine hesitancy is hegemonic masculinity. Various themes, video shots, and diction that informing imagined users cater towards masculine ideals of strength, intelligence, and bravery. As a historically rooted privilege, appealing to masculinity discourse implicates an imagined user who takes pride in their virility. Much like neoliberalism/capitalism enables whiteness, masculinity is privilege assurance for white people insecure in their downshifting social status (Kimmel & Ferber, 2000). In and of itself, Meier (2019, p. 95) defines country music as hypermasculine canon. I extend that claim by arguing that country music inherently attracts listeners

complicit in hegemonic masculinity norms. VUMC and the ACM tailored the PSAs to construct an imagined user who embodies masculinity because of their vaccine acceptance. Further in this essay, I will argue how feeding into gender binaries and harmful masculinity norms undermine both public health and social justice during the COVID-19 pandemic and beyond.

Furthermore, the PSA creators leveraged lost masculinity as threatening to imagined vaccine users. Paisley's PSA featured sports imagery of athletes, coaches, stadiums, and arenas – implying that those who dismiss the pro-vaccine messaging are poor team players. A few shots from Paisley's videos even place the viewer at eyelevel with professional athletes and coaches in their respective rinks, courts, and fields around Nashville. With unwavering straight faces and extended eye contact, the large, confrontational, hypermasculine celebrity athletes challenge the viewer to meet their gazes. The PSA producers pose audiences at a junction: to choose to become part of the team like a man or to fail to rise to the occasion. Those who agree to get vaccinated are successful team players, virile sports fans, strong, and brave members of the community who are not insecure in their masculinity when juxtaposed to that of professional athletes.

Dolly Parton's PSA also implicates masculinity norms in the constructions of imagined vaccine user through her attempts at verbally persuading her audience. Parton antagonizes nonusers as "chicken squat" and "coward[s];" on the other hand, users are "smart enough to get it" (Vanderbilt Health, 2021). Vocabulary indicative of her famous working-class Eastern Tennessee roots, Dolly Parton puts Southern, white, blue-collar men on their proverbial heels by questioning their masculinity. Her insults towards nonusers show that imagined users are receptive and sensitive to questionable masculinity such as compromised bravery, poor decision-

making, and unintelligence. As an "Informed Bootstrapper," imagined users would take offense to the neoliberal and masculinity threats embedded in Parton's language.

In comparison with the other PSAs included in the corpus, Paisley's messages imply more of a sense of unity than that of Dolly Parton and the "Lifting Lives" musicians. While there are still implications of masculinity and individual incentives to improve qualities-of-life post-pandemic, Paisley's team-oriented attitude does not exacerbate existing polarization in the same way that Parton's "chicken squat" claims do. In an interview with the Tennessean, Brad Paisley addresses getting vaccinated a group activity for celebrating the accomplishment of science and perseverance during the coronavirus pandemic, as well as a feat that transcends politics (Leimkuehler, 2021). Given his influence in producing the PSAs with Vanderbilt Health, Paisley's emphasis on unity affects the imagined vaccines users that he depicts. Dolly's "Informed Bootstrapper" may be individualistic and resistant to team-orientation; however, Brad's "Informed Bootstrapper" incorporates unity values into schemas for success.

White Racialization and Public Health

The Tennessee Department of Health launched pro-vaccine PSAs over four weeks after the VUMC and ACM videos, supplementing racialized vaccine discourse by targeting White, Black, and Hispanic residents separately. State health officials developed the PSAs with focus group data and tailored their messaging according to respective racial nuances in vaccine hesitancy. The ads were shared publicly through a Box cloud account linked to the TN Department of Health's website. Within a "Digital Video" folder, three videos were available, named "African American," "Hispanic," and "Caucasian." Other advertising items featuring the

same actors included still images, radio ads, and social media header images for Twitter, Facebook, and YouTube.

The "Caucasian" advertisement referenced components of whiteness that had exacerbated vaccine hesitancy during the coronavirus pandemic: blue-collar, neoliberal-influenced, young white men who were resisting threats of lost privileges. For example, the Tennessee Department of Health video producers cast a young, white, male actor buying a bucket of nails in a hardware store donning a Carhartt branded shirt with matching baseball cap. He walks amongst other tradesmen in overalls and working attire before approaching a pickup truck full of lumber. Carhartt is a company that has been a champion for working class Americans for decades. Their official website boasts to be "much more than a maker of workwear," and "worn by the hardestworking people of them all" (Carhartt, Inc., 2021). Companies that are affiliated with Carhartt include Future Farmers of America (FFA) and Skills USA—an enterprise with stakes in trade and technical students across the country. The obvious connotations of Carhartt with manual labor, hardware purchases consistent with blue-collar occupation, white male actors, and a utility-laden truck appealed to the white, blue-collar, rural Tennessee men who informed the video production. The Tennessee Department of Health focus groups clearly identified vaccine hesitant audiences as white, middle-to-lower class tradesmen who were reflected by the imagined users in the PSA.

Tennessee focus groups not only indicated that the white working class was especially vaccine hesitant but created imagined white vaccine users that seek health insight from practitioners rather that government authorities (Farmer, 2021). The Tennessee government omitted mentioning government agencies entirely in the White PSA but named the CDC explicitly in the video towards Black populations. Notably too, the country music PSAs

mentioned "asking your doctor" and "getting the facts" over adherence to public health guidelines. Despite the CDC's efforts to advocate the evidence-based efficacy and safety data of coronavirus vaccines (CDC, 2020), imagined white users are decidedly apathetic of American scientific authority. During the coronavirus pandemic, pro-trump voters were much less likely to adhere to federally recommended virus avoidant behaviors (Kempthorne & Terrizzi, 2021) as well as more hesitant towards the vaccines when available (Ivory et al., 2021). The imagined user rhetoric in the pro-vaccine PSAs avoided addressing centralized health authorities when tailoring messaging to white populations. Unfortunately, the failure to create a trusting user of information provided by the FDA, CDC, NIH, and other experts legitimizes harmful patterns of institutional distrust.

Anti-vaccination rhetoric draws upon neoliberal notions of citizens as active consumers to orient healthcare as a fundamentally individual responsibility rather than a collaboration with social institutions. A neoliberal lens of healthcare names individuals as rational, organized managers of their own outcomes; therefore, choosing to be vaccinated becomes a personal market transaction (Payne, 2011; Blume, 2006). Consequently, the authority of medical professionals and healthcare institutions is leveled to advice or suggestions rather than principles and guiding regulations. Diminished scientific authority heeds to individualized conceptions of citizenship and therefore less attention to centralized healthcare especially necessary in times of crisis.

Psychology, Trust, and Context in Science Communication

Seeing COVID-19 vaccine public service announcements through a whiteness lens depicts the ways in which health messages reproduce, challenge, and interact with historically

embedded social structures that serve the interests of elite white men. Progressive social justice initiatives that exist at odds with traditional social scripts create many of the incessant partisan conflicts within contemporary American politics (e.g. abortion vs. religion/gender).

Unsurprisingly, vaccine technologies fell victim to entrenched political divisions as well – during a time when health crisis management needed unified fronts to effectively halt coronavirus spread across the country. Therefore, the imperative to communicate information with diverse publics drew upon interdisciplinary tenets of science communication.

Understanding the motivations and values of diverse publics, in addition to crisis psychology, helps communicators disseminate and deliberate COVID-19 vaccine knowledge (Akin, 2017; CERC, 2019). Co-production models of science communication between experts, lay people, and other stakeholders (e.g. the media) emphasize multi-dimensional conversations as the most effective processes for communicating scientific information. In this way, knowledge is created by both experts and nonexperts who provide feedback and insights to each other about science and its role in society. Expanding the scope of COVID-19 vaccine information meant increasing public engagement in scientific narratives (Akin, 2017). Inviting input from white, rural, conservative, hesitant populations into existing vaccine discourse would cultivate more accessible scientific information for diverse American populations.

The PSAs approached vaccine communications by appealing to identity-based, in-group attitudes that originally attracted conservative, non-elite white people to country music (Feder, 2021). Addressing middle-to-low SES white Americans from a bottom-up, neighborly perspective is more effective at spreading health information than a top-down, centralized CDC mandate (Barello et al., 2021). Akin (2017) claims that publics understand science information using trusted pathways like politics or religion. Since country music is founded in shared rural

blue-collar ideals, using familiar, highly-visible country music stars as the faces of pro-vaccine communications improves the chances that nonusers will trust and engage with their framings of scientific knowledge.

Although patronizing target audiences may undermine the efficacy of pro-vaccine messaging, resonate with vaccine hesitant groups, Dolly Parton is a great example of in-group privileges working in favor of better science communication. Amongst poor white Southerners, she is revered as a champion of working-class Appalachia after growing up in poverty and "pulling herself up by her bootstraps" to build a successful entertainment empire. In Dolly Parton's case, I apply Akin's (2017) argument about authority to Parton's platform as a champion of both scientific research as well as a figurehead middle/lower class rural white values. Although Parton is now a wealthy elite, she represents success via nonuser neoliberal values and continues to engage with her lower-class roots as a champion of Eastern Tennessee. According to the CERC (2019), she therefore communicates with a familiarity and ethos that are critical for communication during a pandemic crisis that may be unavailable to outgroup corporate communications from the ACM and or VUMC alone.

The importance of framing science communications effectively is evident for dismantling harmful, unhealthy social movements like anti-vaccination beliefs during a global pandemic. Movements such as these are subject to the effects of misinformation, emotions (e.g. fear, anxiety, and anger), and politics. Therefore, providing explicit, evidence-based information may not be as important to situating vaccines within current social environments (Akin, 2017). Yaqub and associates (2014) contend that mistrust of the COVID-19 vaccines was rooted in institutional mistrust (e.g. FDA, NIH, or CDC). The results of the Tennessee DOH PSAs corroborated that claim, because focus groups data identified white people as less trusting of the CDC than their

black counterparts (Farmer, 2021). The health information may be the same coming from either a doctor or a government agency, but understanding the role of trust in framing science communication is another way to situate information based on political and racial beliefs.

Vanderbilt Health and the Academy of Country Music drew upon principles of trust in science communication by using pop culture to communicate with white people-- filtering information through celebrities instead of health officials. While the messaging was indeed informed by federal public health and scientific authorities, VUMC and the ACM communicated with familiar, non-scientific spokespeople. Social movements, like anti-vaccination, are unified by a common identity or ideology (Blume, 2006). PSAs with country music stars replicate common identities of middle-to-working class Southern white vaccine nonusers.

The study of science communication is an important tool for public health outcomes (Barello et al., 2021; CERC, 2019). Understanding the perspective of not only the American people at large but the most diverse and susceptible groups to poor health outcomes means more successful information outreach and healthcare uptake. With better science communication strategies, the United States may improve not only vaccination rates for pandemic mitigation but individual conceptions about the safety and efficacy of technology as well as trust in collective demands for public health.

CONCLUSION

VUMC's and the ACM's country music PSAs promoted an imagined COVID-19 vaccine user who is a blue-collar, virile white man motivated by personal wellbeing not notions of a greater collective good. The implications of an imagined user who replicates existing social hierarchies is further uncritical proliferation of oppressive, dominant behaviors and beliefs (e.g.

meritocracy, hegemonic masculinity, white supremacy). My hypothesis presumed that discourse analysis of country music pro-vaccine PSAs would point to COVID-19 vaccine hesitancy as a symptom of whiteness that ultimately undermined anti-racist discourse by proliferating a hegemonic white male imagined user. Yet not all imagined user characterizations proved to be in opposition with efforts toward social equity and better public health. Pro-science and progovernment sentiments as well as values for unity are attempts to change the meaning of vaccine discourse from top-down compliance to mutual beneficence. However, the neoliberal and patriarchal narratives evidence in these PSAs maintain white male traditions of dominance (Sioh, 2018; Kimmel & Ferber, 2000). Striving to eliminate the inequitable privileges afforded to white men in the U.S. means exposing and dismantling the discourse and ideologies that enable the heteropatriarchy.

At its essence, the more that scientific and health communications can effectively reach and engage diverse publics, the more that public attitudes and behaviors can effectively improve health outcomes and make change towards race/gender equity in American society. However, there can be tension between immediate public health needs and long-term social progress. For example, playing into masculinity norms by talking with husbands on behalf of at-risk families may be effective science communication during a health emergency. While such measures grant more power to men in society, the imperative of short-term virus mitigation may have to play into existing structures of inequality to reach at-risk groups (e.g. patriarchal families/networks or religious fundamentalist groups). Communications can strive to both improve health now and incrementally addresses bigoted and unjust social norms later. More research into vaccine hesitancy during COVID-19 can inform how science communication can improve to benefit both short-term and long-term social prerogatives. Research of rural, non-college educated, middle

and low SES white people themselves could pilot test science communications to better assess how vaccine nonusers would respond to pro-vaccine messaging. Moreover, COVID-19 data show breakdowns of reasons underlying vaccine hesitancy and resistance such as questions about safety, efficacy, or side effects—like those that informed the Tennessee DOH's public service announcements. Future studies could merge identity politics with psychological concepts like heuristics and crisis-oriented cognition to test different emotional tones, rhetoric, and formats for vaccine science communication on diverse focus groups. The more that communicators can understand audiences as multidimensional and (usually) rational, the better that PSAs and other health campaigns can reach target nonusers. Ultimately, the challenge for future of science communications means incorporating the diversity of America into improve health messaging while also encouraging unified attitudes towards an institution that functions for the collective good: public health.

In either case, inviting more effective communication allows for people to feel seen and heard as active members in a broader community. Public health does not have to exist as rules independent of individual interests if knowledge itself is created with diverse, inclusive, accessible perspectives. Unfortunately, some creators of country music PSAs evaluated in this thesis did not attempt to contribute to anti-polarization rhetoric. The imagined users maintained a white, middle to working class man who is distrustful of public health governing bodies like the CDC. While this might produce short-term gains in changing minds about the vaccine, there are long term negative effects of science communication feeding into polarizing messages. By playing into ideological divisions about big governments, PSAs like the ones produced by VUMC and the ACM may be undermining trust in public health initiatives. Future research

could investigate the effects of political polarization on the effectiveness of public health campaigns that draw on more communitarian vs individualized (or even neoliberal) health ideas.

A culture of proactive, scientifically informed public healthcare is how the United States will improve life expectancy, infant mortality, and other explicit measures of better societal health. With the emergence of the Delta coronavirus variant in the summer of 2021, rallying diverse publics towards vaccinations is again imperative. Adapting PSAs towards better public health relies on community integration—those who feel connected and valued in their community members can more easily understand why vaccinations are for the country's best interests and an interconnected populace. As mentioned, social movements gain traction through shared values and ideologies (Blume, 2006). Offering and administering vaccines at visible community events like student registrations rallies people around shared values like public education.

Contributing to a culture of active, good-faith communication and collective efforts towards public wellbeing may begin to mediate partisan stalemates that have plagued policymaking and bitterly divided the American people during (and well before) the coronavirus pandemic. Perhaps cultivating accessible spaces for white men to understand their position of economic insecurities could have made Trump-voters reassess the ways that voting for a bigoted president would disproportionally harm fellow Americans. Being able to identify whiteness as a violent structure against *all* people may prevent feelings of failure and self-harm (Malat et al., 2018). Collaborative knowledge with other individuals, institutions, and experts promotes truth, empathy, tolerance, and meaning. The coronavirus pandemic revealed immense inadequacies of public health officials and effective science communication to engage heterogenous American populations. However, the frustrations of vaccine hesitancy are byproducts of long-standing

polarization in the United States. While it was unfortunate that a devastating public health tragedy revealed just how severe and unyielding polarization runs in this country, a society in crisis may be a catalyst for the major reforms needed to rehabilitate a divided, post-Trump America that continues to be entrenched in oppressive norms rooted in traditions of white supremacy and masculinity.

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