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A Panel of Papers Examining COVID-19 Masking and Vaccination Advertisements

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A Panel of Papers Examining COVID-19 Masking and Vaccination Advertisements

Abstract

This panel of papers harnesses persuasion theories to examine the content of masking and vaccination advertisements and public service announcements concerning COVID-19. The first paper describes major persuasion approaches, the rationale for the studies, and the methodology. The second and third papers describe the results of the content analyses, along with their implications for media messages on COVID and future research on these topics.

**Examining Masking and Vaccination Advertisements During the COVID-19
Pandemic Through a Persuasion Lens**

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Throughout 2020 and 2021, the COVID-19 pandemic had a devastating impact that led to the illness and death of infected individuals around the world. Even as vaccinations began to be developed, tested, and administered, deaths and hospitalizations mounted, with more than 125,000 people in the U.S. hospitalized by the COVID-19 on New Year's Day, 2021, and thousands of hospitalizations in Ohio alone (The COVID Tracking Project, 2021). Hospitals were overwhelmed. People were dying. Many did not get the opportunity to say goodbye to their loved ones. This caused some members of the public to panic and led to false information being circulated about COVID-19 that, for some, made it difficult to discern fact from fiction. Even as vaccines were developed, manufactured, and distributed in 2021, hospitalizations continued, many Americans refused to wear masks, and still others hesitated when considering being vaccinated. It became increasingly clear that epidemiological remedies – masks, social distancing, and vaccination – could not succeed unless people were willing to take protective steps. Persuading people and changing attitudes quickly became an indispensable weapon in the public health communicator's arsenal.

The major strategy persuaders employed involved the media, notably advertisements and messages that appeared on YouTube and other mediated channels. It is important for communication scholars and practitioners to understand the content of these messages in order to scientifically map the universe of mediated messages, appreciate the strategies they employed, be alert to their limits, and harness this information to suggest strategies for persuasive influence. Yet there has been virtually no research of which we are aware that has conducted a systematic content analysis of these mediated communications. The purpose of this study was to gain insights into the themes and content of PSAs designed to increase personal protective behavior on the COVID issue. We applied persuasion theory and content analytic methods to this task to document the specific appeals COVID PSAs employed on the topics of masking and vaccinations. This panel of three papers reports our rational and findings. This first paper explains the rationale, the second paper describes our findings on masking PSAs, while the third paper focuses on results pertaining to vaccination messages, along with general conclusions.

The purpose of this study was to not only determine what persuasive elements were present in the selected PSAs, but to determine pervasive themes across the PSAs regarding these persuasive elements. This panel of papers systematically analyzes the messages communicators deployed to influence masking and vaccination, describes the results and their relevance, and provides implications for persuasive structures in PSAs moving forward.

Theory

Persuasion theory offers insights into the types of messages that should be most frequently employed and are maximally effective (Perloff, 2021). One approach is **fear appeals**, a persuasive tactic used in advertising that elicits fear in individuals to encourage them to either avoid or engage in a specific action. Ads using a fear appeal are designed to present risks to an individual's well-being. The goal is to motivate a recipient to act by, for example, purchasing a specific product, using a specific service, or believing/adopting a specific idea. A fear appeal is composed of three components. The first component is fear, a negative emotion accompanied by psychological and physiological arousal. Secondly, a negative external threat must be presented. The third factor is referred to as perceived efficacy, a process in which the individual believes that the threat will be reduced if she or he follows the message's recommendations (Witte, 1998).

It is difficult to successfully construct a fear appeal due to the volatility of the appeal itself. If audience members do not feel the message pertains to them in any meaningful way, then there will be no significant change in their attitude towards the topic or stimuli because they have ignored the message. This can be due to psychological factors, such as an illusion of invulnerability, believing that bad things are more likely to happen to others than themselves, and/or a mental barrier to changing an attitude when presented with the message.

During the COVID-19 pandemic, ads and public service announcements (PSAs) have been broadcast on television and shown on YouTube to impress upon the viewers not only the severity of contracting COVID-19, but how to protect themselves through wearing a mask and getting the vaccine when it became available. In the case of both mask and vaccine PSAs, if the fear appeal is used, it must be used carefully. If too little fear is aroused in the viewers, then the

message of the PSA is not getting through to them. If too much fear is used it could cause a panic and have a negative psychological impact on the public. To properly construct a fear appeal for the COVID-19 pandemic, a PSA would have to highlight the consequences of not just how the individual is affected, but how contracting COVID-19 can impact those around them. It is important to note that a fear appeal is more likely to influence behavioral intentions if it convinces the audience that they have the capability, or efficacy, to carry out the recommended action. The more the appeal contains specific information on how to execute the recommendation, like explaining where to get vaccinated, the more likely people will translate attitude into behavioral intentions or actual behavior.

Another important attribute of persuasive messages involves providing **evidence** for the claim the message is trying to make (Reynolds & Reynolds, 2002). Evidence can be used to provide factual support to the claim by seeking outside information that relates back to the message itself. This has a close relation to the credibility of the message because if the evidence provided is what most would consider to be reliable or trustworthy, then it will serve to not only further illustrate the claim of the message, but to increase the likelihood of attitude change in the audience.

By contrast, **narratives** are a persuasive attribute that use storytelling as a means of allowing communicators to place their claims into perspective for their audience. Narratives can employ different persuasive methods than regular persuasive messages due to their structure (Bilandzic & Busselle, 2013). They can create a story with fictional characters and settings while still managing to convey a deeper meaning about the message itself which can have an emotional impact on the audience. In addition, **credibility**, a communicator factor, is established when the audience believes the speaker is a reliable source of information who can be trusted. A credible speaker is usually one who is perceived as having expertise, goodwill, and/or trustworthiness by the audience. Expertise is the knowledge the speaker has on the topic, goodwill is how much the speaker appears to care about the audience and the topic, and trustworthiness is the speaker's perceived honesty. These traits are highly beneficial in persuasive communication, especially when the speaker is attempting to change the attitude of a resistant audience, such as convincing someone to wear a face mask during

the COVID-19 pandemic or to get vaccinated when the person does not believe it is necessary.

The content analyses described in the next two papers called on these persuasion attributes, examining whether advertisements used fear appeals, their deployment of efficacy, recommendation specificity, use of narrative techniques, related arousal of emotions, use of evidence, extent to which credibility was appealed to, and emphasis on other factors, such as the collective or individual orientation of the advertisement that research has identified as important factors in persuasion.

Research Methodology

At the outset, the researchers searched for ads and public service announcements on YouTube and other sources. To establish a coding procedure, the PSAs were watched several times to answer the series of questions that ranged from demographics to the use of fear appeals. (There was an attempt to code anti-masking ads, but it was determined that there were not enough of these to code. In addition, the few that were found were almost immediately taken down due to the misinformation and disinformation that was included in the ads that did exist. Because of this we were not able to use any other ads besides pro masking and vaccinations.)

During the preliminary coding process, the questionnaire was revised multiple times by the group to ensure that all questions were relevant and applicable to a majority of the PSAs in question. There was also a focus on tapping into theoretical factors emphasized in previous research. The first few days of the research involved the group collectively coding a handful of ads so that there was consistency among the group as far as what factors would qualify a yes or no answer on the coding sheet. A portion of ads were selected to establish coder reliability. Coder reliability was a respectable 91% for all ads. In the end, all ads selected appeared on YouTube. Altogether, there were 47 ads advocating masking and 55 advocating vaccinations.

The coding itself began with the demographics of the people who appeared within the ad while also examining the individual was a recognizable person or celebrity. In terms of demographics, we coded for occupation, racial diversity, and representation of social and political diversity. We additionally coded for whether

there was an appeal to the credibility of the communicator within the advertisement. Next, we moved onto message appeals. First, we coded for fear appeals, addressing whether the ad suggested those who don't wear masks or get vaccinated feel invulnerable, or if it suggested a solution to the problem at hand. We also coded to see if the ad aroused guilt. We then went on to assess the images and stimuli, such as imagery of people hugging or celebrating, the music played, or a return to normalcy to see if the ad sought to associate pleasant stimuli with the masking or vaccination message. The researchers also examined whether the ad had a storyline or narrative.

Importantly, coders examined whether the message made an appeal to the collective good, suggesting that masking or vaccines offered protection for the community as a whole rather than focusing on the individual. Appeals were coded for whether they made an explicit verbal mention, or a visual mention and implicit suggestion of working for the public good. Similarly, we examined whether the ads emphasized the importance of individual choice in wearing a mask or getting vaccinated, and whether the mention was explicitly verbal or visual and implicit. We also examined whether the ad provided vaccination facts or evidence, promoted the efficacy or ease of getting the vaccine, whether it focused on what one loses by not following the recommendation (a loss appeal), and whether the ad contained specific information about where to get the vaccine (not relevant for masking ads).

Shortcomings and Strengths

Due to the nature of this study, there were limitations on what could be done by the research team when compiling and gathering the data. One such limitation is the number of ads coded for in each category. Since only 102 ads were coded in total this may not be a large enough sample size to permit drawing conclusions about the larger population. In addition, our ads came from YouTube, which is not the only platform containing ads. The lack of research into this field also posed as a limitation due to an inability to compare the results to those of other studies as a means of determining consistency and reliability.

Nonetheless, the study harnessed theory to develop a coding scheme, established high reliability, and systematically examined the content of critically important advertisements on the topic of the coronavirus. The next two papers

describe the results of our analyses, one of the first to systematically examines the content of masking and vaccination messages,

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A Content Analysis of COVID-19 Masking Ads on YouTube

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Introduction

What types of persuasive appeals do masking ads employ? Do they appeal to fear, evidence, the collective good, or individual choice? This paper addressed these questions, answering them through the methodology of a content analysis described in the earlier paper.

The data collected examined the PSAs holistically and focused on two key aspects: demographics and appeal format. Both aspects allowed for a better understanding of the target audience of the PSA and what indirect message was present alongside the overall message to wear a mask. Guided by theory and using a thorough content analytic methodology, we examined the prevalence of appeals in PSAs advocating the use of masks. Table 1 showcases our results.

Table 1: Content Analysis Results for Mask PSAs

1. Was racial diversity present?	YES 80.9%	NO 19.1%
<i>80.9% of PSAs analyzed had racial diversity present which represents the importance of getting the message out to non-Caucasian races.</i>		
2. Was there an appeal to credibility?	YES 10.6%	NO 89.4%
<i>89.4% of the PSAs viewed had everyday people in them who did not make any particular effort to make themselves credible to the audience.</i>		
3. Were ordinary people shown wearing masks?	YES 76.6%	NO 23.4%
<i>76.6% of PSAs viewed showed everyday people wearing masks as a means of persuading the audience to wear masks.</i>		
4. Was there an emphasis on the common good?	YES 74.5%	NO 25.5%
Was it done verbally?	YES 55.3%	NO 44.7%
Was it done visually?	YES 38.3%	NO 61.7%
<i>This indicates that the majority of the PSAs were focused on getting people to consider others instead of themselves.</i>		
5. Was there an emphasis on individual choice towards wearing a mask?	YES 42.6%	NO 57.4%
Was it done verbally?	YES 42.6%	NO 57.4%
Was it done visually?	YES 10.6%	NO 89.4%
<i>There was not as much emphasis on individual choice, but it was still significantly present in the PSAs.</i>		

6. Was there an emphasis on efficacy? <i>There really was not any emphasis on ease of wearing a mask as it is something that everyone understands how to do. Only 14.9% of PSAs viewed discussed it.</i>	YES 14.9%	NO 85.1%
7. Was there a positive emotional appeal? <i>(The PSAs were not focused on a positive emotional appeal as much as the vaccine PSAs were. See the vaccine paper.)</i>	YES 31.9%	NO 68.1%
8. Was there an association with everyday life? <i>27.7% of PSAs viewed had an association with everyday life. which may have helped people feel more comfortable wearing a mask during their daily routines in public, but it did not appear to be a major factor in the PSAs.</i>	YES 27.7%	NO 72.3%
9. Was there an association with hugging? <i>In the PSAs viewed, only 12.8% associated hugging and mask wearing. This wasn't a prevalent concept in the PSAs as they were more focused on convincing the audience to wear them for not only their safety, but for the safety of others.</i>	YES 12.8%	NO 87.2%
10. Was a fear appeal used? <i>Only 10.6% of PSAs used some type of fear appeal to precipitate mask wearing among viewers. This indicates that fear was not seen as a strong motivator, and it is possible a fear appeal would have backfired and caused a panic.</i>	YES 10.6%	NO 89.4%

Results and Discussion

The results and answers for masking ads had some interesting findings. Among the notable findings were that 81% of the ads showed racial diversity, 74.5% focused on the common good, 89% did not use the fear appeal, and 89% did not use have any appeal to credibility. In addition, many of the ads studied included everyday people and not scientists and/or doctors showing their credentials. The ads consistently showed a diverse demographic with the people shown in them as well and did a good job at being as inclusive as possible. Let's examine these findings in more detail.

When the PSAs were coded, the majority included components such as racial diversity and an emphasis on working towards a common goal/acting on behalf of the common good. For the mask PSAs, a majority showed what was classified as "ordinary people" (non-recognizable figures; not politicians, celebrities, etc.) wearing a face mask in 76.6% of cases. By seeing this, it is an indicator to the audience that anyone can wear a mask and do their part in working towards the common goal of slowing/stopping the spread of COVID-19,

which is further illustrated with 80.9% racial diversity being seen across the PSAs analyzed. It is important to note that 74.5% of mask PSAs put an emphasis on the common good and that 42.6% of mask PSAs put an emphasis on individual choice. This is noteworthy due to the initial public resistance to wearing face masks in public places, along with the indication that the PSAs were not appealing to the viewer as an individual, but rather as part of a social collective where everyone does their part to protect each other by, in this case, wearing a mask. Although these PSAs were designed to convince the audience of the common good, they also did not want to take such a draconian approach that the audience would ignore the message because of its unpleasant nature. By showing images of loved ones reuniting (both with and without masks), strangers wearing masks to protect one another, and statements such as, "I wear a mask for/because...." ads sought to prime the viewer to think of those they love and care about. By using these types of stimuli, the social norm of individuals collectively wearing masks to protect others was linked to the protection of their own loved ones by engaging in wearing a mask.

Conclusions and Implications for Future Research

The mask PSAs had a primary focus on convincing the audience to wear a mask to slow/stop the spread of COVID-19. This was achieved through communicating a sense of commonality through the appeal of the greater good and addressing the viewer not as an individual, but as a member of the larger social group. This is an indication that the creators of the PSAs believed that the audience would be more open to not only listening to the message, but they would be more likely to wear a mask. This has implications to not only COVID-19 PSAs, but for PSAs and advertisements in general. If people are more likely to listen to the message when they are appealed to as part of a group, then the structure of PSAs might need to be reconfigured to accommodate this concept. Further research could include gathering participants who would record how they felt before and after viewing various PSAs as a means of determining the persuasive strength of what they viewed. This would allow for better formatting of these persuasive messages to increase the likelihood that the message was received by the viewer.

A Content Analysis of COVID-19 Vaccination Ads on YouTube

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Introduction

What types of persuasive appeals do vaccine advocacy ads employ? Do they appeal to fear, evidence, the collective good, or individual choice? This paper addressed these questions, answering them through the methodology of a content analysis described in the first paper on this panel.

The vaccine PSAs were examined in the same format as the mask PSAs and were considered holistically throughout the coding process. This allowed for a finder understanding of the target audience and the intended message of the PSAs, as discussed later. Guided by theory and using a thorough content analytic methodology, we examined the prevalence of appeals in PSAs advocating vaccination. Table 1 showcases our results.

Table 1: Content Analysis Results for Vaccine PSAs

1. Was racial diversity present?	YES 78.0%	NO 22%
<i>Racial diversity had the greatest presence in the PSAs at 78%. This indicates that a great majority of the PSAs felt a need to reach out to racially diverse groups, especially due to the fears of the African American population about the safety of the vaccine.</i>		
2. Was there an appeal to credibility?	YES 31%	NO 69%
<i>The PSAs did not focus as much on having someone who is knowledgeable or who can be trusted speak to the audience about the vaccine. Although 31% of the PSAs did lend themselves to credibility, the other 69% focused on other aspects and appeals to persuade people into becoming vaccinated.</i>		
3. Was there an appeal to understanding the science behind the vaccine?	YES 27%	NO 73%
<i>Understanding the vaccine was not a major persuasive component of the PSAs, which shows that the main goal of the PSAs was not to make the public better informed about the vaccine or to dispel any of the false information being spread.</i>		
4. Was there an emphasis on individual choice towards being vaccinated?	YES 54.5%	NO 45.5%
Was it done verbally?	YES 43.6%	NO 56.4%
Was it done visually?	YES 29.1%	NO 70.9%
<i>The emphasis on individual choice shows that more people has reservations on being vaccinated than wearing a mask and, so as to allay fears, people were told to do what they felt was best for them.</i>		

5. Was a fear appeal used?	YES 11%	NO 89%
<i>Only 11% of the PSA's reviewed used a fear appeal. This shows that fear was not the primary persuasive appeal used to convince people to receive a vaccine.</i>		
6. Was there an emphasis on the common good?	YES 58.2%	NO 41.8%
Was it done verbally?	YES 49.1%	NO 50.9%
Was it done visually?	YES 32.7%	NO 67.3%
<i>The emphasis on the common good was a fairly consistent theme throughout a majority of the vaccine PSAs. This indicates that working together as a people was seen by the creators of the PSAs as being more influential than singling out an individual to be vaccinated.</i>		
7. Was there a positive emotional appeal?	YES 47%	NO 53%
<i>Slightly less positive appeal was used in the reviewed PSAs at 47%. Emotional appeals, although prevalent, were not a large driving force in vaccine PSAs from a persuasive standpoint.</i>		
8. Was there information provided on vaccine locations?	YES 20%	NO 80%
<i>Only 20% of PSA's reviewed gave information about where to receive a vaccine. 80% didn't inform viewer where a vaccine location is in their area. This potentially played a role in the publics' confusion on where to receive a vaccine and how to know if they were eligible for one in the early stages of vaccine distribution.</i>		
9. Was there an association with hugging?	YES 25%	NO 75%
<i>Only 25% of PSA's used 'hugging' as an influencer to receive a vaccine. This means that images of hugging were not seen as powerful persuasive forces when convincing the audience to receive the vaccine.</i>		
10. Was there an association with everyday life?	YES 38%	NO 62%
<i>38% of the PSA's reviewed used a 'return to everyday life' as an influencer for receiving the vaccine, indicating that the creators of the PSAs saw that as an impactful persuasive point.</i>		
11. Was there an emphasis on efficacy?	YES 11%	NO 89%
<i>Only 11% of the PSA's discussed the ease of receiving the vaccine, which would indicate that it was not seen as important by the creators of the PSAs as a means of persuasion.</i>		

Results and Discussion

Before discussing the vaccine PSA results, it is instructive to compare the masking ads from the second paper with the vaccine findings from this paper. Some interesting contrasts emerged.

Comparisons Between Masking and Vaccination Ads.

Beginning with the demographic data, a large portion of the vaccine PSAs included visible occupations of the ordinary individuals in the advertisements (57%). The vaccine PSAs also had a large percentage of ordinary people included within the ad with 78%. The occupation of ordinary individuals in the mask PSAs were found to be much lower, at 32%. One item that we included was the use of politicians as speakers in the PSAs themselves; for masks, 4% used politicians and 7% were used in the vaccine PSA. The use of celebrities as speakers is one where the numbers between Masking and vaccination PSAs differs to a greater extent; masks 21%, vaccines 16%. Next, the use of fictional characters was found to be 9% in mask PSA's coded, and just 4% of Vaccine PSAs. Social diversity, which the team classified as having to do with political affiliations or social causes (ie. Black Lives Matter, LGBTQIA+), saw a higher appearance in the masking ads at 11%, while only 5% of Vaccination ads included this item.

Interestingly, the use of more humor in masking PSAs could indicate how much more serious it was to get people vaccinated opposed to wearing masks, this is not to say that masking is not just as important, but vaccines allow for a true return to normal, while masks slow the number of infections. Lastly, the use of nostalgia was markedly different between vaccination PSAs and masking PSAs. Vaccination PSAs that were coded contained the use of nostalgia 49% of the time, while masking PSAs used this item 19% of the time. Of course, we don't know if these are statistically significant differences; research could probe these differences to see if they are statistically meaningful.

Some stand-alone categories also had similar numbers between Masking PSAs and vaccine PSAs, such as whether the advertisement told a story or had a small plot throughout the ad itself; this was found in 13% of masking ads and, 11% of vaccine ads. The last item that showed little variability between masking PSA's and vaccine PSAs was the use of a loss appeal, or the ads placing an emphasis on what an individual loses by not wearing a mask or not vaccinating. For masking PSAs this was used in 19% of the ads coded, and for vaccination PSAs it was used in 18% of the ads coded. The arousal of negative emotions was found in a higher number of masking PSAs (11%), compared to vaccination PSAs (5%). Importantly, one item that was more relevant for vaccination PSAs, but seemed

to be of little relevance was information regarding where to go to either buy a mask or to get a vaccine. This item was included in only 4% of masking PSAs, while it appeared in 20% of vaccination PSAs.

Vaccination PSAs

Let's turn now to the findings about, and implications, of the vaccination PSAs. The results from coding for vaccine PSAs showed that 78% included representation of racial diversity, suggesting that most sources consider representation of different races and ethnicities to be important. The results of appeals to individual choice were more evenly spread with 54.5% of ads resulting in a yes vote (43.6% were verbal appeals; 29.1% were visual appeals). This shows us that a slight majority of PSAs stress the importance of the audience taking it upon themselves to act by receiving the vaccine. In addition, 27% of the PSAs coded appealed to understanding the science behind the vaccine. This is noteworthy due to the false information that has been circulating about the COVID-19 vaccine and the fears of the public, especially non-Caucasians. Many non-Caucasians, specifically African Americans, have expressed concern that the vaccine may be harmful to them and thus have reservations toward receiving it. Historically African Americans have been on the receiving end of unethical medical research, such as the Tuskegee Syphilis study, so it is important to note that 54.5% of vaccine PSAs emphasized individual choice, and 78% of the PSAs featured racial diversity to alleviate fear of the vaccine.

In addition, the vaccine PSAs also had a clear focus on the common good, with 58.2% containing this appeal. On the lower end, we only see 11% of vaccine ads using a fear appeal, showing us that most vaccine ads and PSAs steer clear of trying to scare viewers into receiving the vaccine. Similarly, 11% of PSAs suggested efficacy or ease of receiving a vaccine. On the other hand, 47% of PSAs used positive emotional appeals, meaning a little less than half of the PSAs used "feel-good" stimuli to persuade the audience to receive the vaccine. This can be seen in the percentages of PSAs that showed hugging (25%) and associated the vaccine with a return to everyday life (38%).

Importantly, only 20% of PSAs gave specific information about where to receive a vaccine. Persuasion research shows that the more specific the appeal, the more likely it is to influence behavioral intentions. This is an important aspect

of the PSAs because during vaccine distribution, there was confusion among some members of the public on where they could go to be vaccinated and how to know if they were eligible. This could have led members of the public to forego becoming vaccinated because they did not know where to go, especially in the early stages of vaccine distribution that focused on the geriatric population. Our research suggests that vaccine appeals should strongly focus on providing specific information on where Americans can go to get vaccinated. It is simple to do, simple to include in an ad, and could make a difference. Finally, we noted the paucity of ads that addressed the resistance that some Americans have toward getting vaccinated, as a function of strong attitudes, misinformation, or even conspiracy theories. Ads would be well advised to confront these barriers through judicious arguments and targeted appeals.

Conclusion and Implications for Future Research

Vaccine PSAs had a primary focus on persuading the audience to receive that vaccine by appealing to the common good and through positive emotional images to form an association between good feelings and getting a vaccine. Fear appeals played a minimal role in the persuasion techniques seen in the PSAs and were usurped by positive emotional images. This was most likely done due to the difficulty of successfully constructing a fear appeal. The goal of these PSAs was not to scare the viewer, but to convince the viewer to receive a vaccine through various forms of appeals ranging from emotional to more scientific appeals that explained the science behind the vaccine. In this instance, a fear appeal had a greater chance of backfiring and causing a panic among the public, having the opposite of the intended effect. Due to this, it might be practical to eliminate the use of fear appeals in future PSAs to minimize the risk of causing public panic and to relook at the effectiveness of the fear appeal itself. Although a fear appeal can be beneficial in a certain setting, it also runs the risk of appearing to the viewer as draconian and malevolent and being ignored due to the negative impression it leaves on the viewer.

Alternatively, if fear appeals are used, they should be carefully pretested to make sure they scare people, do not push them into danger control, and offer ways to cope with their fear (i.e., getting a vaccine at a specific location).

In sum, the wealth of findings from this and the masking content analysis offer insights into the themes current ads are using, the ways they are highlighting diversity and a focus on the common good, an American value that can prime feelings of caring for others. It would be interesting to conduct additional studies to see how PSAs are changing as a function of changing conditions and how they can persuade the mask- and vaccine-hesitant to take necessary health precautions. It remains a challenge to convince many Americans to take necessary protective steps, and mediated messages, if thoughtfully constructed based on research evidence, can help make inroads into resistance to mask-wearing and vaccination.