Taking the Cloth: Social Norms and Elite Cues Increase Support for Masks among White Evangelical Americans

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Abstract
During the COVID-19 pandemic, the CDC and the WHO have recommended face masks as key to reducing viral transmission. Yet, in the USA, as the first wave erupted in the Summer of 2020, one-fifth of individuals said they wore masks at most “some of the time”, and a majority said that people in their community wore masks at most “some of the time”. What strategies most effectively encourage compliance with this critical COVID-19 prevention measure? Relying on social identity theory, we experimentally assess two possible mechanisms of compliance, elite endorsement, and social norms, among a representative sample of white US-born Evangelicals, a group that has shown resistance to prevention measures. We find evidence for both mechanisms, but social norms play a remarkably important role – increasing support for mask-wearing by 6% with spillover effects on other prevention guidelines. Our findings confirm the role that appeals to norms and elite endorsements play in shaping individual behavior and offer lessons for public health messaging.

Keywords: COVID-19; norms; political communication; public health; religion; social identity; survey experiment

Introduction
As of 9 May 2022, the COVID-19 pandemic has claimed over 6.25 million lives and infected more than 517 million people worldwide, putting this public health
emergency on track to be the most deadly in over a century. A striking feature of the ongoing pandemic is the absence of clear and consistent public health recommendations by local and national governments. In the USA, for example, the Centers for Disease Control and Prevention recommends such measures as hand washing, physical distancing, and mask-wearing, but local jurisdictions throughout the country do not uniformly condone or enforce these policies. Former US President Donald Trump has himself provided inconsistent messages on the necessity and efficacy of these measures both during and after his tenure.

The scientific consensus on the effectiveness of face masks in preventing the spread of the virus (Abaluck et al. 2021; Anfinrud et al. 2020; Lyu and Wehby 2020) contrasts with contentious reactions across the US political landscape. In Summer of 2020, as the first wave of COVID-19 cases erupted in the United States a majority of Americans reported that they wore face masks in public at most, “some of the time.” Strikingly, although 65% of Americans claimed to wear a mask when in stores or businesses all or most of the time, only 44% of Americans said that others in the community where they live did so (Igielnik 2020). Today, wearing a mask has become a partisan issue (Gadarian, Wallace, and Pepinsky 2020; Milosh et al. 2020) with conservatism and support for former President Trump predicting anti-mask attitudes (Mallinas, Maner, and Plant 2021).

Recent work in the social sciences informs us that while this defiance of public health guidelines may seem puzzling on its face, it is strikingly consistent with social identity theories of behavior in which individuals prioritize the self-esteem they receive from belonging to a social group. Scholars have shown just how powerful social identity is in guiding individuals’ actions and beliefs, finding that when processing and integrating new information, individuals seek not accuracy, but rather affirmations of their membership in a social group, thereby engaging in motivated reasoning (Kahan 2016). From this perspective, the partisan divide over face masks is not so much a puzzle, but a characteristic of the country’s intense partisan polarization.

In this paper, we draw on these insights to test how social identity can be leveraged to encourage individual compliance with public health guidelines in a pandemic. Specifically, we conduct a survey experiment of white Evangelical Americans – one of the least compliant groups in the country (Burge 2020; PRRI 2020). We test two mechanisms that guide behavior within social identity groups: the influence of in-group elites and the powerful role of in-group norms. Limiting our tests to a single social identity group allows us to hold several other factors of cross-group analysis constant in order to examine precisely how social identity might shape individual compliance.

Studies document a number of ways in which religion – an important source of social identity – influences individual attitudes and behavior. Examples include the impact of church attendance on voting behavior (Smith 2019, Green 2010), the acquisition of civic skills (Djupe and Gilbert 2006), and political participation (Djupe and Grant 2001; McClendon and Riedl 2019). The literature also

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demonstrates the influence of religion and religious institutions on public health responses to HIV/AIDS (Munoz-Laboy et al. 2011) and the current COVID-19 pandemic (DeFranza et al. 2020). In a recent study, DeMora et al. (2021) show that messages consistent with individuals’ core religious values can increase white Evangelicals’ support for mask-wearing to fight the spread of COVID-19.

Our study advances the literature by unpacking the mechanisms through which religion, as a social identity, affects individual attitudes and behaviors. We focus on two mechanisms: cues from religious elites and in-group norms. Despite evidence pointing to the influence of religion on political behavior, the literature on the role of religious elites remains inconclusive. While some studies suggest that religious elites can affect political behavior through sermons (McClendon and Riedl 2019) and clergy endorsements (Smith 2019), others find limited or qualified evidence of elite influence (Adkins et al. 2013; Djupe and Calfano 2013; Djupe and Gilbert 2008). In particular, Djupe and Gwiasda (2010) and Margolis (2018) show that religious elites are more likely to influence individual behavior when they provide religious justification for their positions. Similarly, Margolis (2018) suggests that Evangelical Christians may not respond to elite cues when these are overtly political or when they directly conflict with an overlapping partisan identity. We contribute to this evidence base by testing whether a simple message in support of mask-wearing from a well-known Evangelical leader can shape attitudes among white Evangelicals.

Alternatively, individuals may care less about what their religious leader thinks and more about what they perceive to be acceptable norms of behavior within their religious group. We know that social norms can reduce prejudicial behavior and intergroup conflict (Paluck, Shepher, and Aronow 2016). We also know that the perception of a social norm may be enough to change behavior (Tankard and Paluck 2016). We draw from these insights to test whether the perception of an in-group norm about mask-wearing can shape support for this preventive measure among white Evangelicals.

We test these hypotheses with a survey experiment on a representative sample of US-born white Evangelicals fielded in July 2020. Individuals are either assigned to a control condition in which they receive basic public health recommendations to prevent COVID-19, an elite condition in which they receive the same recommendations plus a quote from an Evangelical leader (Reverend Franklin Graham) encouraging mask-wearing, or a norms condition in which they receive the same recommendations plus a statement about the percentage of white Evangelicals who have worn a mask in public (close to 80%). We then measure respondents’ attitudinal, semi-behavioral, and behavioral support for mask-wearing.

Both our elite and norms treatments significantly increased white Evangelicals’ expressed support for mask-wearing in public. However, it is our social norms treatment that had the most consistently statistically significant effect. Not only did it increase expressed support for mask-wearing in public, it also increased support for social and physical distancing as a prevention measure. Further, it increased respondents’ likelihood of saying they would be willing to sign a petition endorsing mask-wearing in public. We additionally find that respondents whose religious motivation is their social identity – those who tell us their Church is important to them first and foremost because they identify as an Evangelical Christian –
respond more strongly to the norms treatment and that the norms treatment was more likely to convey new information to our respondents than the elite endorsement. These results clarify how social identity shapes individual compliance with public health recommendations.

The power of social identity

Our theoretical intuition draws from Social Identity Theory, which argues that individuals want to maximize their self-esteem and do so by favoring the social groups to which they belong (Tajfel and Turner 1979). Social scientists have relied on this intuition to better understand in-group bias in a number of contexts, from voting (e.g., Bassi, Morton, and Williams 2011) to partisan identity formation (e.g., Green, Palmquist, and Schickler 2004), to policy preferences (e.g., Shayo 2009). We build on these insights by interrogating which audience individuals care about within these groups. Although much of the literature on social norms assumes that individuals care about their peers, another literature on elite endorsements suggests that individuals may care about their group leaders (e.g., Zaller 1992).

We examine white Evangelicals in the USA, a social group whose religious identity is highly salient (Putnam and Campbell 2006), and which is known for its resistance to COVID-19 health guidelines (Burge 2020; PRRI 2020; Smith 2020). Our study tests the following hypotheses:

**Hypothesis H1.** White Evangelicals are more likely to support wearing facemasks in public when they receive an in-group elite endorsement of wearing facemasks in public.

**Hypothesis H2.** White Evangelicals are more likely to support wearing facemasks in public when they receive information that a majority of their peers wear facemasks in public.

In July 2020, we fielded a survey experiment with the Lucid marketplace on a sample of 1,780 white Evangelical American adults, using quotas on gender, age, and US region to match the demographic characteristics of US white Evangelicals according to the Pew Research Center. The survey collects a number of pre-treatment covariates, assigns the treatment, and measures support for wearing facemasks in public. We test Hypotheses H1 and H2 via random assignment to one of three conditions (SI-B.2). In the control condition, respondents read a short vignette describing a few facts about COVID-19 transmission. These facts are taken from the CDC website. In the endorsement condition testing H1, this same set of facts was presented with the addition of a statement by Evangelical leader Franklin Graham endorsing mask-wearing. In the social norms

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2Recent research has shown that online survey experiments during the COVID-19 pandemic do not suffer from significant changes in how subjects respond to treatments and possibly generate smaller average treatment effects due to increased inattentiveness (Peyton, Huber, and Coppock 2020). This would make it more difficult to detect an effect that exists.

3We relied on a series of screening questions at the beginning of our survey to obtain a sample of US Born white Evangelicals: respondents qualified if they responded that they are not of Hispanic, Latino, or Spanish origins, that they are white, that they are Protestant, that they are an Evangelical Christian, and that they are a US citizen.
condition testing H2, the endorsement statement was replaced by the claim that close to 80% of white Evangelicals have worn a mask in public. Our source for Pastor Graham’s statement is a 10 April 2020 interview with the Charlotte Observer. Our source for the statistic that 80% of white Evangelicals have worn a mask in public comes from the magazine Christianity Today, which cites a COVID-19 Tracking Poll from Data for Progress.

We measure four outcomes, ranging from attitudinal to behavioral. A thermometer question asks, on a scale of 0 to 10, how important the respondent believes wearing a mask in public is for combatting the spread of COVID-19. This is the outcome measure we use for our power analysis. A second question asks the extent to which, on a scale from 1 (“Strongly disagree”) to 5 (“Strongly agree”), the respondent agrees with a set of policies to mitigate the spread of COVID-19. Finally, a behavioral measure asks respondents how likely, on a scale from 0 to 10, they would be to add their name to a Change.org petition endorsing mask-wearing in public. If respondents answer 5 or higher, they are then given the option to click on the petition URL, which is a decision we can track.

Results

Our sample consists of 1,780 US-born white Evangelicals, 1,066 (59.89%) of whom identify as female, 713 (40.06%) as male, and 1 as non-binary. The mean age in our sample is 54.23 years and roughly 68% of the sample identify as Republican, 16% identify as Democrats, and the remaining 16% as Independents (SI-C.2). According to a 2015 Pew Research Poll, the Evangelical population writ large has a median age of 49, is 55% female-identifying and is 56% Republican (Pew Research Center 2015).

Who in our US-born white Evangelical sample is more likely to wear a mask to begin with? We know that, among the US population more broadly, women, racial minorities, older individuals, and Democrats are more likely to support mask-wearing in public to prevent the spread of the virus (Pew Research Center 2020). Our correlational analysis in SI-D shows that older, more educated, and less Republican respondents are more likely to agree with the importance of mask-wearing in public; these patterns hold in a multiple regression framework.

We test hypotheses H1 and H2 with the following pre-registered specification:

$$y_i = \alpha + \beta T_i + \gamma X_i + \epsilon_i$$

(1)

where $y_i$ is the outcome of interest for respondent $i$, $\beta$ is the estimated treatment effect, $T_i$ is the assignment to treatment, $X_i$ is a vector of demographic covariates, and $\epsilon_i$ is the error term. In our pre-analysis plan, we did not specify which demographic covariates to include in $X_i$. We therefore include all pre-treatment demographic controls.

Figure 1 illustrates our main results testing the elite endorsement and the norm conditions relative to the control condition (see SI-E for regression tables). It indicates a significant effect of our elite endorsement condition on a single outcome measure: the thermometer score expressing support for wearing masks in public. And yet, for nearly every other outcome measure that follows, the treatment effect is no longer statistically distinguishable from zero.
By contrast, the social norms message shows more statistically significant effects across a variety of outcomes. Relative to the control condition conveying solely the CDC guidelines at the time, the norms condition increases the respondent’s thermometer score in support of mask-wearing in public; it also increases agreement with the claim that both mask-wearing and social distancing are effective. Finally, though the effect is statistically significant only at the 90% confidence level, the norms message increases the respondent’s expressed willingness to sign a petition endorsing mask-wearing in public.4

Substantively, the average treatment effects we uncover in both conditions are consistent with similar studies on the determinants of mask-wearing and social distancing during COVID-19 (e.g., Rieger 2020). Our norms message increases respondents’ thermometer scores by 0.15 standard deviations on average, while

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4A principal components analysis on our six non-behavioral outcome measures shows that a single dimension explains a relatively high proportion of the overall variation in our outcome measures—about 78.28%. This could explain why we find that our treatment on mask-wearing shapes attitudes toward hand-washing and social distancing, for example.
the endorsement message increases thermometer scores by 0.11 standard deviations.\(^5\)

Our pre-analysis plan also pre-registered a compliance analysis. After each treatment condition, we asked respondents to tell us whether they already knew the information, or whether they did not believe it. We then coded those who responded “I do not believe this” as non-compliers and conducted a complier average causal effect (CACE) analysis in SI-F. Our results hold. Finally, we registered a series of tests to investigate the social identity mechanism we posit in this paper: if white Evangelicals can be moved to express greater support for face masks through a social identity mechanism, then we should expect respondents who identify as white Evangelical because it is their social identity to respond more strongly to our treatments. In SI-H, we find that they do.\(^6\)

Although our treatment effects are not statistically significantly different from one another, there is one crucial way in which they differed. In SI-I, we show that respondents were less likely to already know the information provided by our norms treatment (49%) than that provided by our elite treatment (81%). If “individuals are motivated to understand what is normative in the communities to which they belong” (Tankard and Paluck 2016), then changing a white Evangelical’s perception about what is normative in their community may have influenced their attitude toward mask-wearing.

Finally, although we did not pre-register an analysis by respondent partisan identity, the data present enough variation in party ID, and the role of partisanship in shaping both individuals’ religious identity (Margolis 2018) and their response to COVID-19 prevention measures has been so significant, that we conduct an exploratory analysis of our treatment effects by respondent partisan identity (see SI-I). We find that both treatments increase support for face masks among Republicans and that the effect is statistically significantly stronger for self-identified Republicans than for self-identified Democrats or Independents. This is at least in part due to the fact that support for mask-wearing in the control condition is significantly higher among Democrats and Independents, potentially creating a ceiling effect. Yet it is notable that our interventions shaped attitudes toward masks among their most ardent opponents.

Conclusion
In this paper, we draw from social identity theory to test how white Evangelicals, a group that has been less compliant with COVID-19 prevention guidelines, can be persuaded to follow a key health recommendation: wearing masks in public. Our results indicate that both leader and peer audiences effectively shape compliant attitudes toward mask-wearing, with more wide-ranging effect for the peer norms treatment. Additionally, our results show that white Evangelicals did not know the extent

\(^5\)Our treatment effects are noticeably stronger for our thermometer question than for our masking effectiveness question, even though the two are very similar. We propose that this may be due to an anchoring effect in our survey design: our masking policy question is third in a battery of questions, in which the order was not randomized. Indeed, the answers to the first two questions are significant predictors of the answer to the third question (SI-K32).

\(^6\)In SI-G, we show that our treatment effects are not mediated by religiosity or religious motivation.
to which their peers were already abiding by this norm; by informing them of this, our vignette shaped perceptions around the existence of this norm, motivating respondents to comply with it as well.

The effect of our elite vignette was less robust. Research has shown that the influence of religious elites has its limits, particularly when elite positions deviate significantly from those of group members on polarizing issues such as the environment or LGBT rights (e.g., Djupe and Claassen 2018). Alternatively, white Evangelicals may seek out the view of their local religious leaders, rather than that of national evangelical leaders (Djupe and Claassen 2018). As a result, our vignette may have provided a cue from the “wrong” elite; future work should test whether cues from more local Evangelical leaders are more effective.

Neither the elite nor the norm vignette had a significant effect on our most behavioral measure, clicking through to a public petition endorsing mask-wearing in public. This may be due to the fact that only a sub-sample of respondents were asked this question (those who chose 5 or above on the preceding question asking them if they would be willing to sign), cutting our sample size by a third. But it may also be due to the fact that our click-through measure may have been a heavy ask: respondents would have to click through to an external site, foregoing their anonymity and publicly endorsing mask-wearing. A rich literature across the social sciences has shown that attitudes do not necessarily translate into behaviors and that behaviors can change without a shift in attitudes, for both normative and social reasons (Adida, Lo, and Platas 2018; De Weerd and Klandermans 1999; Klandermans 2014; Scacco and Warren 2018).

Encouraging mask-wearing among white Evangelicals is an uphill battle. Most white Evangelicals also identify as Republican (Pew Research Center 2016), introducing an overlapping partisan identity that conflicts with support for mask-wearing. In this light, it is remarkable that our treatments shifted attitudes at all and that the strongest effect emerges among white Evangelicals who also identify as Republican. The potential of social norms to affect attitudes toward mask-wearing – even in the face of religious and partisan identities that converge in opposition to mask-wearing – offers a unique opportunity for public health messaging. Indeed, messaging that focuses on dispelling myths around compliance among white Evangelicals may be singularly effective: when white Evangelicals learn that many members of their group do, in fact, comply with mask-wearing and other preventative measures, they may be more willing to follow suit.

Supplementary material. To view supplementary material for this article, please visit https://doi.org/10.1017/XPS.2022.22

Data availability statement. This study was pre-registered prior to data collection. A copy of the pre-analysis plan is available through the EGAP Registry at https://doi.org/10.17605/OSF.IO/MBXY9.

The data, code, and additional materials required to replicate all analyses in this paper are available through the Harvard Dataverse Network, at: https://doi.org/10.7910/DVN/YNXJZO.

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References


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