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Yikes! The Effect of Incidental Disgust and Information on Public Attitudes During the COVID-19 Pandemic

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Existing research has focused extensively on the role of emotions such as anger, fear, and enthusiasm in explaining public opinion, but less is known about the importance of disgust, an innate disease-related emotion. To study the independent and joint effects of disgust and information, I draw on the case of the COVID-19 pandemic. I demonstrate that experimentally induced incidental disgust and exposure to information about how to flatten the curve of the COVID-19 cases have distinctive effects on political, racial, and health attitudes. Independently, exposure to information affects preferences only for restrictive policies to fight the spread of the virus. In contrast, the stand-alone effect of incidental disgust, as well as its joint effect with exposure to information, are responsible for attitude change toward both pandemic-relevant and irrelevant policies, Asian minorities, and prevention measures. Importantly, the study finds that citizens respond symmetrically to disgusting stimuli and information across degrees of political awareness, ideology, partisan affiliation, and trait authoritarianism. The results draw attention to the far-reaching implications of disgust on public opinion under threatening conditions.

KEY WORDS: Bayesian Learning Model, COVID-19, disgust, information, motivated reasoning, parallel updating

Emotions are pivotal to how people update their perceptions of reality and respond to political stimuli because they regulate their existential and epistemic motivations (Lerner & Keltner, 2001; Marcus et al., 2000). Indeed, political elites appeal to citizens' emotions strategically to manipulate political participation (Valentino et al., 2011) and increase support or opposition for particular policies or candidates (Lupia & Menning, 2009). Similarly, the role of emotional appeals in online and traditional media is to sensationalize information and influence how the audience receives and processes media content (Crockett, 2017; Iyengar & Kinder, 1987). While research in recent years has focused extensively on the importance of anger, fear, and enthusiasm in explaining public opinion and electoral behavior (e.g., Vasilopoulos et al., 2019; Young, 2019), less is known about disgust, an affective appraisal that is expected to be particularly important during pandemic crises due to its role in detecting and dealing with potential contaminants (Clifford & Jerit, 2018).

Disgust was associated with the COVID-19 pandemic very early as scientific reports tracked the origins of the new coronavirus (SARS-CoV-2) back to consuming exotic foods such as bats (Andersen et al., 2020). In the current polarized environment, these findings have been invoked to incite hostile feelings against China and the scapegoating of Asian minorities. The reference of President Trump to the new coronavirus as a "Chinese" or "Wuhan" virus is an exemplary case of how the politics of disgust have been playing out. Similarly, the mass media racialized the pandemic by focusing on exotic foods of Asian markets and dietary habits of Asians that may be unconventional to Western audiences. Moreover, one of the most challenging aspects of the ongoing crisis has precisely been that individuals treat their fellow citizens as potential health threats and avoid contact with them. Perceiving others as potential contaminants imposes a severe psychological burden on individuals, erodes social cohesion, and hampers economic activity.

By drawing on the case of the COVID -19 pandemic, this article aims at advancing existing knowledge over disgust in three ways. First, it represents the largest study to date investigating how disgust and exposure to information affect COVID-related, health, and racial attitudes at the peak of the pandemic in New York. Second, it provides experimental evidence about the downstream effects of incidental disgust on a wide array of political preferences for public policies that are unrelated to the pandemic. Third, it explores how the effects of disgust and information vary across subgroups of the population with different political and psychological attributes. In doing so, this study contributes to the broader theoretical debate about how rational or motivated public opinion is under threatening conditions.

More specifically, I argue that in the wake of the ongoing pandemic citizens update their attitudes in an explicable manner as a function of their exposure to new information and their emotional responses to the information. However, exposure to information and appraisals of disgust change attitudes toward policies and prevention measures in distinctive ways and trigger different dynamics in opinion change.

To study the effects of disgust and information on attitude change, I conducted a large-scale survey experiment with a nationally diverse sample of American citizens during the COVID-19 crisis in April 2020. The experimental design allows for the examination of the independent and joint impact of incidental disgust and exposure to information about how to prevent the contagion of the virus on attitudes toward restrictive policies, prevention measures, and Asian minorities. The timing of the survey experiment offers two main advantages. First, the intervention exhibits a high degree of external validity and unobtrusiveness as treatments are realistic and directly pertain to the ongoing pandemic. Second, the survey tracks attitude changes in real time as citizens update their opinions and adjust their behaviors in the wake of the health crisis.

I find that incidental disgust and exposure to information about the COVID-19 pandemic increase support for restrictive policies at the expense of civil liberties. This information exposure alone does not have any downstream effects on health and racial attitudes or other (even closely related) policy preferences, for example, support for universal health care. However, incidental disgust—both alone and jointly with information—encourages the adoption of stricter health attitudes, increases bias against Asians, and has downstream effects even on public preferences for policies that are unrelated to the pandemic. Finally, I find little evidence for heterogeneous effects according to political awareness, ideology, party identity, and trait authoritarianism in all three treatment conditions and across 312 different model specifications.

Two caveats are in order when interpreting the results. On the one hand, it is possible that as some amount of treatment is taking place in the world already, I obtain conservative estimates of the average treatment effects, which should increase the confidence in the results. On the other hand, the timing of the survey experiment may have an impact on the generalizability of results

in less turbulent periods. Although more research is needed, the findings of the experiment resonate with previous observational and experimental studies conducted in more mundane times (Clifford & Jerit, 2018; Kam, 2019).

Physical Disgust and the Behavioral Immune System

Both disgust appraisals and access to information are of paramount importance when health threats are salient. Disgust is associated with a strong impulse to avoid or discard something infective or offensive (Rozin et al., 2008; Rozin & Fallon, 1987). Disgust is the affective appraisal that regulates responses of the behavioral immune system, a system that protects the well-being of human bodies from disease and potential contaminants (Aarøe et al., 2017; Oaten et al., 2009). The behavioral immune system constantly monitors surroundings for potential health threats or abnormalities. If it detects a pathogen, appraisals of disgust increase and harm-avoidance strategies are set in motion (Clifford & Wendell, 2016; Nussinson et al., 2018).

Rozin et al. (2008, p. 761) observe that disgust is a response to "anything that reminds us that we are animals." Indeed, cumulative research has identified five to six typical elicitors of disgust: bodily waste of living organisms (e.g., feces, mucus), physical evidence of unhygienic behavior (unpleasant odor), animals and insects (mice, cockroaches), promiscuous sexual behavior (having multiple sex partners or unconventional sexual preferences), atypical appearance (deformity, behavioral signs of illness), skin lesions (blisters, pus), and spoiled food items (Curtis & de Barra, 2018; Tybur et al., 2009, 2013).

Rozin and colleagues (Rozin et al., 2008, 2009; Rozin & Fallon, 1987) theorize that the origins of disgust can be found in distaste, a reflex that motivates withdrawal from objects perceived to be unhealthy or inedible. In this sense, Rozin considers disgust to be fundamentally linked with food consumption. However, recent evidence shows that food-related disgust may be indistinguishable from disgust directed toward animals or insects and has common genetic bases with general pathogen disgust (Curtis & de Barra, 2018; Sherlock et al., 2016).

A competing theory posits that disgust is a withdrawal-motivating appraisal that offers the evolutionary advantage of avoiding pathogens and diseases (Curtis et al., 2011; Oaten et al., 2009; Tybur et al., 2013). This approach argues that disgust can be elicited when people encounter or even merely think about disease threats. The fact that individuals can experience disgust without the physical presence of a pathogen (which is often unobservable to the naked eye) can explain the broader implications of disgust beyond the domain of bodily health and regarding moral, social, and political issues.

Disgust and the Politics of Pandemics

In politics, both trait disgust (dubbed as *disgust sensitivity*) and the emotional state of disgust have been found to predict or explain attitudes toward a plethora of policy issues. During health crises the role of disgust becomes even more eminent. Disgust sensitivity has been found to be a strong predictor of attitudes toward Ebola and Zika (Kam, 2019). Indeed, individual differences in disgust sensitivity, and in particular contamination disgust, predict higher concerns about disease outbursts and stronger support for more restrictive policies, especially for those perceived as outgroups. Clifford and Wendell (2016) offer further evidence that experimentally induced disgust leads to preferences for harsher health policies regarding vaccinations, food and environmental quality, GMOs, obesity, and drugs. In line with this literature, I expect that:

H1: Incidental disgust will increase support for restrictive policies at the expense of civil liberties.

H2: Incidental disgust will encourage the adoption of stricter health attitudes.

Activities or behaviors that are not themselves harmful or threatening to health can become moralized if they activate mental associations with explicit disgust-eliciting stimuli (Rozin et al., 2009; Tybur et al., 2013). Indeed, many studies have found that incidental disgust can increase moral condemnation (Eskine et al., 2011; Tracy et al., 2019; cf. Ghelfi et al., 2020). However, a recent meta-analysis of experimental studies found that incidental disgust has a minimal impact on moral judgment (Landy & Goodwin, 2015). Overall, the meta-analytic results suggest that the relevant scholarship has been facing problems of low statistical power and publication bias.

Evidence from evolutionary psychology suggests that disgust sensitivity is associated with greater sensitivity of detecting morphological dissimilarities across health-related and incidental objects (Nussinson et al., 2018). This increased sensitivity to dissimilarity can trigger similarity bias that manifests itself in biases toward perceived outgroups. Disgust can trigger bias against immigrants and racial minorities. Disgust sensitivity underlies opposition to immigration and prejudice against ethnic outgroups (Aarøe et al., 2017) mostly due to resistance to foreign norms, rather than perceived disease threats (Karinen et al., 2019). A darker side of disgust is its association with the dehumanization of immigrants and other outgroups (Giner-Sorolla & Russell, 2019). Based upon this evidence,

H3: Incidental disgust should increase biases against Asians, a racial group that has been repeatedly targeted by elite rhetoric during the pandemic.

Disgust sensitivity predicts support for protectionist measures across different policy domains even after controlling for personality traits, trait authoritarianism, racial resentment, or moral traditionalism (Kam & Estes, 2016). Disgust explains conservative attitudes toward women, same-sex marriage, and LGBTQI+ people (Casey, 2016). However, Gadarian and van der Vort (2018) find evidence that as tolerance toward sexual minorities increases in modern societies, individuals may reject disgust rhetoric as uncivil.

Finally, there is conflicting evidence in the literature about whether there is an asymmetry in negativity, and in particular disgust, bias across the ideological spectrum. A wealth of literature suggests that conservatives are more threat- and disgust-sensitive than liberals using physiological (Oxley et al., 2008) as well as self-report measures (Inbar et al., 2012; Stewart et al., 2019). In contrast, Steiger et al. (2019) report that liberals show greater contempt, anger, disgust, and happiness biases than conservatives. Finally, a recent preregistered direct replication and a series of conceptual replications of the seminal of the seminal studies of Oxley et al. (2008) and Smith et al. (2011) failed to find any ideological asymmetries in disgust bias using physiological measures (Bakker et al., 2020).

Disgust, Information, and Attitude Change

Disgust affects attitudes by regulating epistemic motivations. In two experimental studies, Clifford and Jerit (2018) report consistent evidence that disgust discourages further seeking of information about disease outbursts and health threats but increases recall of relevant information. In contrast, anxiety motivates the search for new information (see also Albertson &

Gadarian, 2015; Huddy et al., 2007), but its effect may be neutralized in the presence of disgusting stimuli. Further, disgust increases attitude strength when information includes cues that increase confidence whereas it reduces conviction in previously acquired beliefs when pleasant cues are present (Briñol et al., 2018).

Three major approaches seek to explain how citizens update their views when exposed to new information: Zaller's Receive-Accept-Sample (RAS) model, motivated reasoning, and the Bayesian Learning Model. Although conflicting in their predictions, each of them offers useful insights into how information and affective appraisals can interact to produce attitude change.

Zaller's memory-based RAS model (1992) suggests that individuals' ability to absorb information depends on their levels of political awareness and their political predispositions. Citizens who are either highly aware or completely ignorant about political issues and hold strong political orientations are less likely to update their opinions in light of new evidence, and only individuals who are moderately aware and have tepid views can be swayed. A proposition of the RAS model that is particularly interesting for this study is that exposure to information related to a particular issue will increase the salience of this issue and make relevant considerations more accessible when respondents report their opinions. In line with this expectation,

> *H4*: Information about how to flatten the curve of the COVID-19 cases should only impact relevant attitudes and have but negligible downstream effects to other health or racial attitudes and policy preferences.

This hypothesis implies that belief systems exhibit weak dynamic constraint, that is, changes in one idea-element do not stimulate changes in other idea-elements elsewhere in the configuration of political attitudes (Converse, 1964; Coppock & Green, 2022), or at least exposure to issue-specific information does not *independently* affect attitudes toward other policy domains.

While the RAS model largely overlooks the role of emotions, Lodge and Taber's John Q. Public model of motivating reasoning puts them at the forefront. Lodge and Taber (Lodge & Taber, 2013; Taber & Lodge, 2006) put forward a dual-process model that stipulates that information processing occurs through the interaction of conscious and unconscious forces. After a stimulus event, cognition consciously processes considerations under the unconscious influence of predispositions and incidental affect. The outputs of this procedure are rationalized arguments and evaluations which in turn update previous attitudes and beliefs. However, this update is biased in the sense that it motivates existential and epistemic needs for certainty and attitude consistency. In other words, citizens are motivated to confirm the validity of their deep-seated beliefs. In light of this evidence,

> *H5*: The interaction of incidental disgust and exposure to information about the pandemic should increase support for restrictive policies and health measures and produce downstream effects to attitudes irrelevant to the pandemic.

Finally, the Bayesian Learning Model suggests that attitude change occurs in a manner consistent with Bayes' rule, that is, individuals update their opinions by weighting new information according to the strength of their prior beliefs (Bullock, 2011; Gerber & Green, 1999). While Bayesian updating is compatible with a variety of predictions, recent experimental evidence shows that attitude change is durable, incremental, homogeneous, and in the direction

of evidence (Coppock et al., 2018; Guess & Coppock, 2018). These individual-level patterns are consistent with a rational conceptualization of the U.S. public as a collectivity that holds understandable opinions about policy issues which change predictably when exposed to new information (Page & Shapiro, 1992). Accordingly, I expect that:

H6 Attitude change will be small and that subgroups of the population will update their opinions in parallel regardless of their levels of political awareness, ideology, partisan affiliation, and trait authoritarianism.

Bartels (2002) disagrees with the notion that parallel motion is the manifestation of Bayesian learning and instead argues that a lack of convergence in opinions indicates partisan bias. However, Bullock (2009) contends that Bayesian learning will create agreement among partisans as the amount of information they consume approaches infinity. Because the majority of citizens are largely inattentive and process only a finite amount of information, disagreement among subgroups of the public does not necessarily violate predictions of the Bayesian Learning Model. Coppock (2016) extends this critique by suggesting that information and opinions should be measured in the same scale to properly test the convergence prediction. To these arguments, I would add that the opinion gap between different publics due to their enduring partisan commitments is not clear evidence of bias. Rather, a clear indication of bias would be if these enduring predispositions affected how individuals perceive situational stimuli when they update their political views, that is, when a significant interaction between predispositions and an intervention is observed. Regardless, this study does not claim that updating is parallel among all possible subgroups but only among those explored here.

Summary of the Argument

I argue that at the peak of the pandemic crisis, citizens updated their attitudes in an explicable way as a function of their exposure to new information about flattening the curve of COVID-19 cases and their emotional responses. However, exposure to information and affective appraisals of disgust are expected to produce divergent outcomes. On the one hand, incidental disgust should impact attitudes toward Asian minorities, prevention measures, and policies. On the other hand, information should independently increase only the support for restrictive measures at the expense of civil liberties. In contrast, the interaction of disgust appraisals with information about the pandemic should have downstream effects to racial and health attitudes. Finally, I expect that individuals will update their opinions in a similar manner regardless of their political predispositions and level of political awareness. Table 1 summarizes all six hypotheses tested in this study.

Research Design and Methods

To empirically test these hypotheses, I conducted a large survey experiment at the peak of the COVID-19 crisis in New York. The study (N = 2,458) was administered with a nationally diverse sample of American citizens by Lucid from April 1 to April 6, 2020.[1] The experiment

[1]Coppock and McClellan (2019) offer a comparative evaluation of samples obtained via Lucid and MTurk using the 2012 American National Election Study as a baseline. They find that samples on Lucid resemble the national population closer than their counterparts on MTurk in almost every observable demographic, political, and psychological attribute. The experimental study lasted for 15 minutes and had a completion rate of 56.26% (see Figure S1.1 in the online supporting information). This research was reviewed and approved by the Institutional Review Board of Columbia University (IRB-AAAS9650).

Table 1. Summary of Hypotheses

Theory	Hypothesis	Description
Disgust as a withdrawal-motivating appraisal	1	Incidental disgust will increase support for restrictive policies at the expense of civil liberties
Disgust as a withdrawal-motivating appraisal	2	Incidental disgust will encourage the adoption of stricter health attitudes
Disgust as a withdrawal-motivating appraisal	3	Incidental disgust should increase bias against Asians, a racial group that has been repeatedly targeted by elite rhetoric during the pandemic
RAS Model	4	Information about how to flatten the curve of the COVID-19 cases should only impact relevant attitudes and have but negligible downstream effects to other health or racial attitudes and policy preferences
John Q. Public Model (Motivated reasoning)	5	The interaction of incidental disgust and exposure to information about the pandemic should increase support for restrictive policies and health measures and produce downstream effects to attitudes irrelevant to the pandemic
Bayesian Learning Model	6	Attitude change will be small and subgroups of the population will update their opinions in parallel regardless of their levels of political awareness, ideology, partisan affiliation, and trait authoritarianism

features four arms, a placebo, and three treatment groups. To increase statistical precision, a total of 995 subjects were randomly assigned to the placebo group while treatment groups 1, 2, and 3 include 490, 478, and 495 subjects, respectively.

Procedure

Before treatment assignment, respondents were invited to complete a short pretreatment survey to collect basic demographic information. Then, subjects were randomly assigned to one of four groups. All treatments consisted of reading a 700-word news article and watching a 2-minute clip. To collect data about the outcomes of interest, subjects filled out a survey after receiving the treatment.

In the placebo group, subjects read an article about the historical importance of oak trees and watched a news story about apple-picking season in New York. In treatment group 1, subjects read the same story but watched a clip that aimed to induce incidental disgust. In the clip, three individuals were shown eating unconventional foods such as live worms and insects. The intervention was intense as subjects had to watch the processing of live worms and then their consumption while listening to intense sounds of chewing.[2]

In treatment group 2, subjects read a news article that urged taking measures to flatten the curve of COVID-19 cases. The article originally appeared in *The New York Times* but was

[2]In the clip, people's faces have been cropped above the nose, but subjects might have inferred their race (Asian) by either the type of food people were consuming or some other facial characteristic. To test whether the clip triggers nativist or xenophobic attitudes instead of or in addition to disgust, I conduct a series of robustness checks (Table S1.7 in the online supporting information). The results suggest that the treatment does not increase subjects' authoritarian preferences or anti-immigration attitudes.

slightly edited, and all relevant cues were removed. It presented information about the deadliness of the virus and the measures people would need to take to reduce the rate of contagion. Subjects also watched a video of a health worker in a New York hospital talking about the shortages in supplies and showing the dramatic conditions inside the hospital.

In treatment group 3, subjects read the same article as subjects in group 2 but were exposed to the disgust-inducing clip. This design increases the comparability across treatments and allows for the study of the independent and joint impact of information and incidental disgust on policy preferences and health and racial attitudes. An alternative way of identifying the joint effects of information and disgust would have been to provide information related to COVID-19 with and without language meant to evoke a disgust reaction. However, this design would be less advantageous as it could not target feelings of disgust without also eliciting other irrelevant considerations about the pandemic, for example, that the pandemic originated in Asia. Importantly, the choice of treatments reflects theoretical predictions deriving from the John Q. Public model, which stipulate that *incidental* (and not necessarily politically relevant) emotions affect citizens' political considerations and beliefs (Lodge & Taber, 2013).

Analytic Strategy

The main estimands of interest are the Average Treatment Effect (ATE) and the Conditional Average Treatment Effect (CATE). The ATE is the difference between the average outcome for all subjects in the placebo group and the average outcome for all subjects assigned to each treatment group, separately to avoid problems with multiple comparisons.[3] I estimate the ATE with OLS estimators. Difference-in-means estimates are obtained from a simple bivariate regression while multivariate estimators adjust for pretreatment covariates (see Appendix S1.1 in the online supporting information for the formal specification of all statistical models). Because the balance test suggests that the design is not perfectly balanced (see Tables S1.1 and S1.2 in the online supporting information), the latter estimates should be considered more reliable.

To explore variability in treatment effects, I estimate the Conditional Average Treatment Effect, that is the ATE for different subgroups. The CATE is obtained by including a treatment-by-covariate interaction in the multivariate OLS estimators to account for the conditional effect of political awareness, ideology, partisan identity, and trait authoritarianism, separately. Finally, I conduct consecutive *F*-tests to compare the multivariate models to the interactive models.

To calculate two-tailed *p*-values for hypothesis tests, I employ randomization inference. Assuming that there is no treatment effect for any unit, randomization inference (RI) uses the actual distribution of the outcome in the data to estimate the probability of observing an estimate of the ATE as extreme as the one that was actually observed, under infinite (approximated by 100,000) counterfactual random assignments.[4] RI is particularly useful for the analysis of the findings because many outcomes are skewed and violate the normality assumption that traditional estimators make. I obtain the two-tailed *p*-values associated with the CATE in a similar manner, assuming that all units have a constant effect (Gerber & Green, 2012).

[3]Due to the large number of tests, a multiple comparisons problem may arise. In Appendix S4 in the online supporting information, I explain why it is not likely this is a serious problem in the current study and demonstrate that adjustments for multiple comparisons do not alter the findings in a substantive manner.

[4]To conduct randomization inference in R, I used the *ri2* package (Coppock, 2019).

Measures

Prior to treatment assignment, subjects filled out a short survey with questions about their demographic characteristics, political interest, ideology, partisan identity, and trait authoritarianism. I operationalize political awareness by constructing a composite scale of education and political interest (Zaller, 1992). Accordingly, I measure trait authoritarianism by adding four items measuring child-rearing values (Pérez & Hetherington, 2014, see the relevant tetrachoric correlations in Table S1.3 in the online supporting information). The posttreatment survey included measures for policy preferences and health and racial attitudes. All outcomes were measured with a 7-point scale and all variables were rescaled to range from 0 to 1.

I tapped into support for restrictive policies at the expense of civil liberties to reduce the spread of the virus with five measures taken and adapted from Albertson and Gadarian (2015). Subjects were asked how much they favored or opposed to requiring a person to have a medical exam, quarantining a person potentially exposed to the virus, and requiring a patient to be isolated under the threat of arrest. Moreover, subjects expressed their support for requiring hospitals to cure potential patients even if they did not accept them and destroying personal effects that might be contaminated by the coronavirus. I also measured policy preferences for same-sex marriage, abortion rights, gun control, death penalty, increasing taxes for the rich, implementing a universal healthcare program, deporting immigrants, and shutting down the borders.

I study health attitudes with four items that measured how likely it was that the respondent would more frequently wash her hands for more than 20 seconds, wear a mask, cover her mouth and nose with a tissue when coughing or sneezing, and cough or sneeze into her elbow or shoulder. Further, I tapped into attitudes toward Asian minorities by asking how much the respondent supported preemptively quarantining Asian people under the threat of arrest, and how likely it was that she would avoid contact with Asian people, visiting areas populated by Asian people, and eating Asian food.

At the end of the survey, subjects were asked to report on a 7-point scale whether they were feeling disgusted, grossed out, repulsed, angry, bitter, resentful, anxious, afraid, scared, proud, enthusiastic, hopeful, and sad. Results from principal axis factoring with *promax* rotation suggest that five factors underlie these items (see Table S1.4 in the online supporting information). Accordingly, I add the respective items to create four scales for disgust (*Cronbach's alpha* = 0.872), anger ($a = 0.855$), fear ($a = 0.893$), and enthusiasm ($a = 0.753$). Sadness is measured with a single item, which loads to a distinct factor.

Empirical Results

I begin the analysis by focusing on the results of the manipulation test (see Tables S1.5 and S1.6 in the online supporting information). The disgust treatment increases feelings of disgust by 11.4 percentage points (two-tailed p-value $< .001$) but does not affect anger, anxiety, anger, enthusiasm, or sadness after controlling for covariates (all $ps > .255$). Subjects exposed to information about the health risks of the pandemic feel sadder ($\widehat{ATE} = 0.086$, $p < .001$), more anxious ($\widehat{ATE} = 0.042$, $p = .017$) and angry ($\widehat{ATE} = 0.032$, $p = .082$), and less enthusiastic ($\widehat{ATE} = -0.041$, $p = .007$). The fact that exposure to information does not affect disgust appraisals ($\widehat{ATE} = 0.011$, $p = .53$) offers analytical leverage to study responses in the absence of such feelings. Finally, in the condition where subjects were exposed to both information and disgusting stimuli, only feelings of disgust are impacted ($\widehat{ATE} = 0.144$, $p < .001$).

Table 2. The Direct and Joint Effects of Disgust and Information on Preferences for Restrictive Policies at the Expense of Civil Liberties

	Restrictive Policies vs. Civil Liberties (1)					
	Force People to Take Medical Exams		Quarantine People		Isolate Patients	
	(a)	(b)	(a)	(b)	(a)	(b)
Treatment Group 1: Disgust						
ATE	0.025	0.031	0.021	0.027	0.016	0.008
(SE)	(0.019)	(0.021)	(0.018)	(0.020)	(0.019)	(0.020)
RI p-value	*.195*	*.133*	*.263*	*.154*	*.395*	*.693*
Intercept	0.576	0.49	0.658	0.497	0.645	0.578
(SE)	(0.011)	(0.045)	(0.011)	(0.043)	(0.011)	(0.044)
Covariates	No	Yes	No	Yes	No	Yes
N	1410	1178	1416	1185	1409	1174
Treatment Group 2: Information						
ATE	0.051	0.044	0.04	0.035	0.052	0.038
(SE)	(0.020)	(0.022)	(0.018)	(0.02)	(0.018)	(0.021)
RI p-value	*.009*	*.040*	*.031*	*.086*	*.004*	*.068*
Intercept	0.576	0.493	0.658	0.531	0.645	0.576
(SE)	(0.011)	(0.046)	(0.011)	(0.042)	(0.011)	(0.043)
Covariates	No	Yes	No	Yes	No	Yes
N	1381	1161	1400	1170	1385	1155
Treatment Group 3: Information × Disgust						
ATE	0.047	0.048	0.011	0.017	0.012	0.016
(SE)	(0.019)	(0.021)	(0.018)	(0.020)	(0.019)	(0.020)
RI p-value	*.014*	*.023*	*.523*	*.379*	*.522*	*.425*
Intercept	0.576	0.518	0.658	0.489	0.645	0.566
(SE)	(0.011)	(0.044)	(0.011)	(0.042)	(0.011)	(0.043)
Covariates	No	Yes	No	Yes	No	Yes
N	1403	1183	1413	1188	1410	1183

Note: Average Treatment Effects (ATE) are OLS coefficients. Difference-in-means models (a) do not control for any covariates. Covariate-adjusted models (b) control for sex, age, race, income, political awareness, trait authoritarianism, ideology, and party identity. The *p*-values are based on a two-tailed test. When heteroskedasticity is present, HC1 robust standard errors are estimated. All variables are rescaled to range from 0 to 1.

I structure the remainder of the analysis as follows. I begin by reporting the direct and joint causal effects of disgust and information on support for restrictive policies at the expense of civil liberties and on health and racial attitudes. Overall, the estimates of the ATE suggest that attitude change is medium-to-small in size and treatments affect attitudes positively by 2.2–11.6 percentage points, thus offering evidence in favor of Hypothesis 6. The fact that these effects are moderate increases their plausibility given the one-off nature of the treatment (see Coppock et al., 2020). Finally, I explore downstream and heterogeneous effects of the treatments across levels of political awareness, ideology, partisan affiliation, and trait authoritarianism.

Preventive Policies Versus Civil Liberties

This section reports tests for the direct and joint effects of disgust and information on public preferences for strict measures to curb the contagion rate of COVID-19. Table 2 presents the impact of treatments on support for drastic measures that conflict with civil liberties. Independently, incidental disgust has no impact on support for any of these measures (all

Table 3. The Direct and Joint Effects of Disgust and Information on Preferences for Restrictive Policies at the Expense of Civil Liberties

	Restrictive Policies vs. Civil Liberties (2)			
	Force Hospitals to Cure Patients		Destroy Personal Belongings	
	(a)	(b)	(a)	(b)
Treatment Group 1: Disgust				
ATE	0.032	0.039	0.066	0.049
(SE)	(0.014)	(0.015)	(0.022)	(0.023)
RI p-value	*.024*	*.012*	*.002*	*.036*
Intercept	0.778	0.699	0.456	0.457
(SE)	(0.008)	(0.034)	(0.012)	(0.05)
Covariates	No	Yes	No	Yes
N	1403	1170	1330	1115
Treatment Group 2: Information				
ATE	−0.022	−0.019	0.106	0.085
(SE)	(0.015)	(0.017)	(0.021)	(0.023)
RI p-value	*.144*	*.247*	*<.001*	*<.001*
Intercept	0.778	0.677	0.456	0.385
(SE)	(0.008)	(0.034)	(0.012)	(0.048)
Covariates	No	Yes	No	Yes
N	1385	1162	1312	1105
Treatment Group 3: Information × Disgust				
ATE	0.016	0.025	0.060	0.057
(SE)	(0.015)	(0.016)	(0.022)	(0.023)
RI p-value	*.274*	*.124*	*.004*	*.013*
Intercept	0.778	0.729	0.456	0.417
(SE)	(0.008)	(0.033)	(0.012)	(0.049)
Covariates	No	Yes	No	Yes
N	1401	1181	1330	1126

Note: Average Treatment Effects (ATE) are OLS coefficients. Difference-in-means models (a) do not control for any covariates. Covariate-adjusted models (b) control for sex, age, race, income, political awareness, trait authoritarianism, ideology, and party identity. The *p*-values are based on a two-tailed test. When heteroskedasticity is present, HC1 robust standard errors are estimated. All variables are rescaled to range from 0 to 1.

*p*s > .13). However, incidental disgust jointly with reading information about the deadliness of COVID-19 increases support for forcing people to have medical exams ($\widehat{ATE}$ = 0.048, p = .023).

In contrast, exposure to information seems to have a more important role in activating preferences for restrictive measures. Information about the health risks of the global pandemic increases support for requiring people to have medical exams ($\widehat{ATE}$ = 0.044, p = .04), but its effects on preferences for quarantining potentially infected people ($\widehat{ATE}$ = 0.035, p = .086) and isolating patients ($\widehat{ATE}$ = 0.038, p = .068) achieve statistical significance only at the 0.10 level. Nevertheless, these effects are still noteworthy given that the proposed measures were particularly severe in that disobedient citizens were threatened with being arrested.

Table 3 presents the results from two additional tests that correspond to less strict but still aggressive policies. Incidental disgust increases public support for destroying personal belongings that might be contaminated by the virus ($\widehat{ATE}$ = 0.049, p = .036) and requiring hospitals and health clinics to provide services to people who think they may have the coronavirus, even if a hospital or clinic does not want to provide them ($\widehat{ATE}$ = 0.039, p = .012). Further, information

about the pandemic increases support for destroying contaminated personal belongings, both independently ($\widehat{ATE} = 0.085$, $p < .001$) and in conjunction with disgusting stimuli ($\widehat{ATE} = 0.057$, $p = .013$).

Overall, findings offer evidence in favor of Hypotheses 1 and 4. Indeed, incidental disgust and exposure to information increase support for restrictive policies at the expense of civil liberties. A caveat is important. Treatments primarily affect attitudes toward less severe measures, that is, measures that do not include the penalty of arrest. An explanation could be that preferences for restrictive policies at the expense of civil liberties are based on deeply seated beliefs and identity concerns that transcend contextual factors. An alternative explanation is that even more intense treatments are needed for such extreme preferences to be affected.

Health Attitudes

I now turn my focus to the direct and joint effects of incidental disgust and information about the COVID-19 pandemic on attitudes toward prevention measures. Table 4 presents the results of these tests. A preliminary finding of interest is that the baseline levels of adopting these attitudes are extremely high. Indeed, the intercepts of the difference-in-means models suggest that at the peak of the pandemic, untreated subjects adopted these health measures on average at a rate of 88.6%–93.4%, with the exception of wearing a mask in public (59.1%). These extreme average outcomes in the placebo group provide a strong test for the hypothesis that incidental disgust affects health attitudes since attitude change necessarily occurs *at the margin*.

Indeed, evidence offers support for Hypotheses 2 and 5 by indicating that incidental disgust encourages the adoption of stricter health attitudes, but only when individuals are also exposed to information about the COVID-19 pandemic. The joint treatment of reading about the risks of the virus and watching the disgust-inducing clip increases the propensity of subjects to cover their mouth when coughing ($\widehat{ATE} = 0.023$, $p = .014$) and wear a mask in public ($\widehat{ATE} = 0.059$, $p = .005$). Independently, the effect of incidental disgust increases the propensity to cover the mouth when coughing, but marginally fails to reach statistical significance at the 0.05 level ($\widehat{ATE} = 0.022$, $p = .056$). Substantively, this is the smallest effect detected in this study showing a shift from about $\widehat{ATE} = 5.337$ on a 7-point scale in the placebo group to $\widehat{ATE} = 5.485$ in the treatment group. Finally, information about the pandemic solely does not affect any health attitudes (all $ps > .114$) providing support for Hypothesis 4, that issue-specific information affects only closely related attitudes. These results suggest that emotions, but not necessarily information, play an important adaptive role during major health crises.

Attitudes Toward Asians

This section reports evidence about how disgust and pandemic-relevant information affected attitudes toward Asian people at the peak of the health crisis in New York. Table 5 presents the results. In line with Hypotheses 3 and 5, incidental disgust reinforces, both independently and combined with information, prejudice against Asians, a racial minority that has suffered numerous xenophobic attacks since the outburst of the COVID-19 pandemic.

Exposure to disgusting stimuli motivates individuals to avoid contact with Asian people ($\widehat{ATE} = 0.041$, $p = .062$), keep away from areas populated by Asian people ($\widehat{ATE} = 0.053$,

Table 4. The Direct and Joint Effects of Disgust and Information on Health Attitudes

	Health Attitudes							
	Wash Hands		Cover Your Mouth		Cough/Sneeze into Elbow/Shoulder		Wear a Mask	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Treatment Group 1: Disgust								
ATE	0.0003	–0.004	0.019	0.022	0.005	–0.001	0.027	0.017
(SE)	(0.009)	(0.009)	(0.011)	(0.011)	(0.012)	(0.013)	(0.019)	(0.021)
RI p-value	*.979*	*.705*	*.08*	*.056*	*.723*	*.935*	*.142*	*.436*
Intercept	0.934	0.856	0.895	0.816	0.886	0.818	0.591	0.501
(SE)	(0.005)	(0.020)	(0.006)	(0.025)	(0.007)	(0.028)	(0.011)	(0.045)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
N	1467	1216	1464	1215	1464	1215	1446	1200
Treatment Group 2: Information								
ATE	0.002	0.002	0.012	0.012	0.009	–0.002	0.042	0.034
(SE)	(0.008)	(0.009)	(0.011)	(0.011)	(0.012)	(0.013)	(0.019)	(0.021)
RI p-value	*.787*	*.784*	*.290*	*.313*	*.496*	*.842*	*.033*	*.114*
Intercept	0.934	0.855	0.895	0.833	0.886	0.817	0.591	0.498
(SE)	(0.005)	(0.018)	(0.006)	(0.025)	(0.007)	(0.028)	(0.011)	(0.044)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
N	1455	1205	1451	1204	1452	1203	1430	1188
Treatment Group 3: Information × Disgust								
ATE	0.006	0.010	0.023	0.028	0.022	0.014	0.064	0.059
(SE)	(0.009)	(0.008)	(0.010)	(0.011)	(0.011)	(0.012)	(0.019)	(0.020)
RI p-value	*.477*	*.242*	*.030*	*.010*	*.052*	*.274*	*<.001*	*.005*
Intercept	0.934	0.872	0.895	0.832	0.886	0.838	0.591	0.500
(SE)	(0.005)	(0.018)	(0.006)	(0.024)	(0.007)	(0.027)	(0.011)	(0.043)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
N	1468	1221	1464	1220	1467	1222	1440	1202

Note: Average Treatment Effects (ATE) are OLS coefficients. Difference-in-means models (a) do not control for any covariates. Covariate-adjusted models (b) control for sex, age, race, income, political awareness, trait authoritarianism, ideology, and party identity. The *p*-values are based on a two-tailed test. When heteroskedasticity is present, HC1 robust standard errors are estimated. All variables are rescaled to range from 0 to 1.

Table 5. The Direct and Joint Effects of Disgust and Information on Racial Attitudes

	Attitudes toward Asians							
	Preemptively Quarantine Asian People		Avoid Contact with Asians		Avoid Visiting Areas Populated by Asian People		Avoid Eating Asian Food	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
Treatment Group 1: Disgust								
ATE	0.037	0.045	0.035	0.041	0.046	0.053	0.093	0.097
(SE)	(0.020)	(0.021)	(0.021)	(0.022)	(0.023)	(0.024)	(0.021)	(0.022)
RI p-value	*.065*	*.036*	*.103*	*.062*	*.043*	*.026*	*<.001*	*<.001*
Intercept	0.269	0.113	0.305	0.146	0.378	0.227	0.263	0.137
(SE)	(0.011)	(0.045)	(0.012)	(0.047)	(0.013)	(0.052)	(0.012)	(0.047)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
N	1386	1159	1399	1163	1384	1155	1415	1177
Treatment Group 2: Information								
ATE	0.012	0.025	0.005	0.024	0.018	0.031	0.03	0.031
(SE)	(0.020)	(0.021)	(0.021)	(0.023)	(0.023)	(0.024)	(0.021)	(0.022)
RI p-value	*.544*	*.253*	*.805*	*.309*	*.442*	*.208*	*.153*	*.171*
Intercept	0.269	0.14	0.305	0.127	0.378	0.213	0.263	0.17
(SE)	(0.011)	(0.046)	(0.012)	(0.048)	(0.013)	(0.051)	(0.012)	(0.046)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
N	1373	1152	1380	1143	1371	1142	1401	1166
Treatment Group 3: Information × Disgust								
ATE	0.032	0.050	0.024	0.048	0.041	0.061	0.097	0.116
(SE)	(0.020)	(0.021)	(0.022)	(0.023)	(0.023)	(0.024)	(0.021)	(0.022)
RI p-value	*.110*	*.014*	*.275*	*.029*	*.076*	*.012*	*<.001*	*<.001*
Intercept	0.269	0.129	0.305	0.173	0.378	0.277	0.263	0.179
(SE)	(0.011)	(0.043)	(0.012)	(0.048)	(0.013)	(0.051)	(0.012)	(0.046)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
N	1392	1173	1396	1165	1385	1159	1409	1177

Note: Average Treatment Effects (ATE) are OLS coefficients. Difference-in-means models (a) do not control for any covariates. Covariate-adjusted models (b) control for sex, age, race, income, political awareness, trait authoritarianism, ideology, and party identity. The *p*-values are based on a two-tailed test. When heteroskedasticity is present, HC1 robust standard errors are estimated. All variables are rescaled to range from 0 to 1.

$p = .026$), and avoid eating Asian food ($\widehat{ATE} = 0.097$, $p < .001$). Most worryingly, incidental disgust increases public support to preemptively quarantine Asian people under the threat of arrest ($\widehat{ATE} = 0.045$, $p = .036$). This finding, combined with the reluctance of the public to endorse similar policies for the entire population (see Table 2), resonates with previous evidence about the role of disgust in inciting prejudice against perceived outgroups (Kam, 2019).

Information about the deadliness of COVID-19 independently does not affect racial attitudes (all $ps > .171$), corroborating Hypothesis 4 for the minimal impact of information on coordinating attitude change. However, exposure to both information and disgusting stimuli fuels anti-Asian bias by increasing support to quarantine Asians ($\widehat{ATE} = 0.05$, $p = .014$), and attitudes toward reducing contact with Asian people ($\widehat{ATE} = 0.048$, $p = .029$), avoiding areas frequented by Asians ($\widehat{ATE} = 0.061$, $p = .012$), and eating Asian food ($\widehat{ATE} = 0.116$, $p < .001$). The effects of incidental disgust are stronger for attitudes involving gustatory senses. In fact, the substantive impact of the treatment on avoiding the consumption of Asian food is as large as 0.579 on a 7-point scale (from 1.577 in the placebo group to 2.156 in the treatment condition).

Downstream Effects on Preferences for COVID-19-Irrelevant Policies

To study the downstream effects of exposure to information and disgusting stimuli, this section reports tests for policies that are not directly related to the pandemic. Table S2.1 in the online supporting information presents the results. Incidental disgust strengthens public support for universal health care ($\widehat{ATE} = 0.047$, $p = .01$). Although this finding may be somewhat surprising, it is line with Hypothesis 2, that feelings of disgust will increase support for stricter health measures. It also fits well with previous observational and experimental studies suggesting that disgust increases citizens' concerns about health and support for measures that protect public health in normal times and curb infections during epidemics (Clifford & Jerit, 2018; Clifford & Wendell, 2016; Kam, 2019; Kam & Estes, 2016). Another interesting finding is that incidental disgust does not spur bias against homosexuals; if anything, results suggest that it slightly increases support for same-sex marriage ($\widehat{ATE} = 0.037$, $p = .068$). Nevertheless, the treatment does not affect attitudes toward gun control and increasing taxes for the rich ($ps > .289$).

Once again, I find no evidence that exposure to information about the pandemic has any downstream effects even on attitudes toward universal health care that are somewhat relevant to the pandemic (all $ps > .124$). However, information jointly with disgusting stimuli increases support for higher taxes for the rich ($\widehat{ATE} = 0.042$, $p = .025$). While the effect on preferences for a universal healthcare system point to the expected direction, it only achieves statistical significance at the 0.10 level ($\widehat{ATE} = 0.031$, $p = .093$).

Table S2.2 in the online supporting information presents tests for four more policies. Watching the disgust-inducing clip increases support protective measures such as shutting down the borders ($\widehat{ATE} = 0.043$, $p = .032$) and reinforces public demands for deporting immigrants ($\widehat{ATE} = 0.035$, $p = .087$). Surprisingly, but in line with the above findings about taxing the rich and same-sex marriage, incidental disgust makes individuals more liberal toward abortion rights ($\widehat{ATE} = 0.048$, $p = .018$). Although disgust jointly with information does not affect any attitudes (all $ps > .256$), information independently shapes preferences for border closure ($\widehat{ATE} = 0.038$, $p = .037$).

Taken together, evidence so far provides strong support for the argument that emotions rather than information coordinate attitude change in a health crisis. Indeed, with the exception of attitudes toward border control, information impacts only attitudes toward policies to fight the pandemic but does not have any downstream effects on any other policy preferences (Hypothesis 4). In contrast,

incidental disgust motivates individuals to change their opinions, often in conflicting ways, on a wide range of issues that may be completely unrelated to the ongoing health crisis (Hypothesis 5).

Heterogeneous Effects

In this section, I focus on heterogeneous effects according to attributes identified by previous research as critical moderators of attitude change and emotional responses: political awareness, ideology, partisan affiliation, and trait authoritarianism. To explore heterogeneous effects, I estimate 312 conditional models (four models for each outcome in each treatment arm) and conduct an equal number of *F*-tests to test whether models with interactions fit the data better than the nested non-interactive multivariate models (results are presented in Tables S3.1–S3.6 in the online supporting information). Overall, the evidence suggests that the magnitude of heterogeneous effects is minimal, and subgroups of the population update their opinions in parallel (Page & Shapiro, 1992).

Political awareness, with all its different conceptualizations and operationalizations, has been repeatedly found to increase the constraint of belief systems and influence opinion formation and attitude change (Zaller, 1992). While there is theoretical disagreement on exactly how political awareness affects the propensity to update beliefs, the exploratory analysis finds little evidence that political awareness moderates the effects of treatments: only 5 out of 78 *F*-tests yield statistically significant results at the .05 level. Indeed, in most cases, sophisticated citizens are equally prone to update their opinions with their politically innocent counterparts. Importantly, disgust affects attitude change in a similar manner across degrees of political awareness.

Ideology and party identity are two important factors that shape political preferences. There is a fervent scholarly debate about whether liberals and conservatives display symmetric or asymmetric partisan bias and how these disparities impact their attitudes (Baron & Jost, 2019; Ditto et al., 2019). I investigate whether ideology moderates the effect of treatments on outcomes and find little support. Across 78 comparisons, only three *F*-values are associated with a *p*-value lower than 0.05. In other words, liberals and conservatives do not differ in the way they update their opinions when exposed to treatments. I find similar results across levels of partisan affiliation (only 6 out of 78 tests produce *F*-values significant at the .05). Citizens' responses to treatments are homogeneous regardless of their ideological beliefs, partisan identity, and whether the treatment involves information, disgusting stimuli, or a combination of the two.

Finally, I explore heterogeneous effects with respect to authoritarianism, a trait that has been found to predict many political attitudes and even consumer preferences (Hetherington & Weiler, 2018). Again, I find weak evidence that trait authoritarianism moderates the effect of information and emotional responses on attitudes toward pandemic-relevant and irrelevant policies, prevention measures, and bias against Asian minorities. Across 78 tests, only two *F*-values are statistically significant.

Overall, these findings offer strong support for Hypothesis 6, that attitude change is homogeneous and individuals respond to disgusting stimuli symmetrically. Therefore, citizens do not display significant differences in the way they update their views, and disgusting stimuli shape political responses in an indistinguishable manner across levels of political awareness, ideology, party identity, and trait authoritarianism.

Conclusion

An informed citizenry is essential to the democratic process, and especially so during major health crises. In this study, I contribute to the study of emotions in politics by providing

rigorous evidence regarding the influence of incidental disgust on information processing and attitude change. I argued that citizens update their opinions in a predictable manner as a function of their exposure to new information about flattening the curve of COVID-19 cases and their emotional responses. To test this argument, I conducted the largest experimental study to date that tests the impact of incidental disgust on attitudes toward COVID-19 policies, prevention measures, and racial minorities. Importantly, the survey tracked changes in opinions as they were occurring in real world and offered insights into the causal underpinnings of these changes.

The results of the experiment suggest that exposure to information about the deadliness of the virus has limited impact on attitudes and only affects opinions about the restrictive measures that need to be taken to flatten the curve of COVID-19 cases. Exposure to information may be more influential in the earlier stages of a pandemic, but as the elasticity of reality increases (Baum & Groeling, 2010), the marginal returns from consuming information decrease.

In contrast, incidental disgust, both independently and jointly with information, affects a plethora of attitudes. Treatments involving disgusting stimuli motivate individuals to adopt stricter health attitudes and increase public support for severe prevention policies. These findings offer a cautiously optimistic outlook about the persistence of public support for fundamental civil liberties during challenging periods because citizens were reluctant to change their views about exceptionally punitive measures. However, incidental disgust produced negative societal results by inciting racial bias against Asians, a minority that has been targeted since the beginning of the pandemic.

Moreover, exposure to disgusting stimuli increases demands for universal health care and border closure. Surprisingly, I find that incidental disgust has a positive impact on attitudes toward taxing the rich, same-sex marriage, and abortion rights. Although mediation analysis is beyond the scope of this study and involves heroic methodological assumptions (Bullock et al., 2010), these findings suggest that there may be an underlying mechanism through which disgust appraisals can increase "disgust tolerance," rather than sensitivity, in certain cases. An alternative explanation is that as Americans become culturally open, feelings of disgust are redirected to intolerant views. Future research should investigate these dynamics more closely.

Finally, I find little evidence that political awareness and political predispositions moderate how individuals update their views when exposed to information or disgusting stimuli. This implies that divergence in attitudes between segments of the citizenry should not be attributed to asymmetries in responding to cognitive and emotional stimuli, but rather to selection biases regarding the media content that individuals choose to consume (Krosnick & Macinnis, 2015).

Taken together, these findings highlight the challenges of political communication during health crises. Disseminating information about symptoms, methods of transmission, and prevention measures is vital during the early phases of pandemics. However, factual information may have diminishing returns in persuading citizens to follow strict health guidelines and protocols. The dramatization of news and the use of emotional appeals can increase compliance with restrictive and preventive measures but may also have detrimental effects on social cohesion by aggravating racial bias and unwillingly affecting attitudes beyond those targeted.

In sum, this study suggests that trying to change minds is still a worthwhile, albeit complex, enterprise in the current climate of partisan and affective polarization. There are two important

caveats here. On the one hand, the impact of information on changing citizens' minds should not be overestimated. Exposure to information about the pandemic only affected attitudes toward relevant policies. On the other hand, the role of emotions should not be underestimated in the way individuals respond over a broad spectrum of issues during such a time of heightened health risk and startling partisan and ideological conflict. Future research should delve deeper into how cognition interlaces with emotions to produce political attitudes that help citizens adapt to the challenging landscape of the postpandemic era.

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Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's web site:

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