

**DISGUST OF THE OTHER SIDE: HOW DISGUST RELATES TO POLITICAL
ATTITUDES**

THESIS

Submitted to the Department of Psychology

State University of New York at New Paltz

In Partial Fulfillment of the Requirements

For the Degree of

Master of Sciences in Psychological Science

By

Jeremy S. Weintraub

August 2020

DISGUST OF THE OTHER SIDE: HOW DISGUST RELATES TO POLITICAL ATTITUDES

Jeremy S. Weintraub

State University of New York at New Paltz

We, the thesis committee for the above candidate for the Master of Arts degree in psychology,
hereby recommend acceptance of this thesis.

Dr. Glenn Geher, Thesis Adviser Department of Psychology, SUNY New Paltz

Dr. Tabitha Holmes, Thesis Committee Member

Department of Psychology, SUNY New Paltz

Dr. Matthew Wice, Thesis Committee Member

Department of Psychology, SUNY New Paltz

Approved on _____

Submitted in partial fulfillment of the requirements for the Master of Sciences degree in
Psychology at the State University of New York at New Paltz

Acknowledgements

I would like to take the opportunity to thank members of my committee - Dr. Glenn Geher, Dr. Tabitha Holmes, and Dr. Matthew Wice – for their guidance and recommendations to the current research. Thank you to members of the State University of New York at New Paltz faculty for furthering my academic knowledge in the field of psychological sciences. I would also like to thank my dear friends and family - especially my Mom and Dad, for sacrificing and supporting my endeavor to pursue this degree.

Table of Contents

I. Acknowledgmentsiii

II. Abstractvi

III. Introduction1

 Perceived Vulnerability to Disease1

 Mechanisms of Disgust2

 Group Psychology, Disgust Sensitivity, Political Affiliation, & Political Attitudes
 toward Immigrants4

 Political Conservatism and Disgust Sensitivity7

 Socioeconomic Status8

 Political Attitudes toward Immigrants8

 Current Study.....9

 Hypotheses10

IV. Methodology10

 Participants10

 Measures and Procedure11

V. Results12

 Scale Reliability12

DISGUST OF THE OTHER SIDE

Zero-Order Correlations among Primary Variables13

Effects of Political Orientation on Perceived Vulnerability to Disease, Disgust
Sensitivity, Conservatism, and Political Attitudes toward Immigration16

Multiple Regression Predicting Political Attitudes toward Immigration from
Perceived Vulnerability to Disease, Disgust Sensitivity, and Conservatism16

Ancillary Analyses20

VI. Discussion21

 Predicting Attitudes Toward Immigration22

 The Politics of Disgust22

 Perceived Vulnerability to Disease and Disgust Sensitivity23

 Disgust and the Coronavirus Pandemic24

 The Behavioral Immune System25

 Limitations26

 Future Directions27

 Bottom Line28

VII. References29

VIII. Appendices38

Abstract

The purpose of this study was to expand upon prior-researched aspects of the Behavioral Immune System (BIS), a psychological mechanism that increases survival by detecting pathogens in the environment (Schaller, 2015). Prior studies have associated the BIS with disgust sensitivity, political orientation, political policy, and susceptibility to disease (Curtis, DeBarra, & Aunger, 2011; Oaten, Stevenson, & Case, 2009; Brenner & Inbar, 2015; Lee & Ottati, 2002; Terrizzi Jr, Shook, & McDaniel, 2013). The current research has the capacity to shed light on the degree to which the BIS is connected with the important modern-day political issue of immigration in the United States.

Keywords: Disgust, Behavioral Immune System, Perceived Vulnerability to Disease, Political Attitudes toward Immigrants

Introduction

The threat of disease can lead to drastic ramifications in societies. As the Coronavirus (COVID 19) has spread globally, it has impacted the structure of everyday life for those experiencing a quarantine. An adequate threat-detection system could alert individuals to danger and avert deleterious effects of disease. This capacity to assess risk is a mechanism of the Behavioral Immune System (BIS; Schaller & Park, 2011). This system functions as a pathogen-detector, seeking out threats in the environment (Schaller & Park, 2011). These threats lead to disease-avoidant behaviors taking place (e.g., distancing from those that are sick), however, they may function improperly because such responses are costly to mobilize (Schaller, 2015). Thus, the system functions like a smoke detector, in that it correctly detects disease to prevent a life-threatening false-negative error but can lead to false-positive errors to incorrect threat responses (Nesse, 2005). Similar behavioral systems to avoid pathogens have been found in a broad array of other species as well (Kiesecker, Skelly, Beard, & Preisser 1999; Kavaliers, Choleris & Pfaff, 2005).

Perceived Vulnerability to Disease

In humans, a biological immune system exists to remove contaminants once they have entered the body (Terrizzi Jr et al., 2013). To prevent toxins from entering the body and implementing a costly biological prophylactic response (if a toxin is contracted), the psychological mechanisms of the BIS exists (Terrizzi Jr et al., 2013). In other words, the BIS acts as a “first line of defense” to prevent pathogens (Schaller & Park, 2011).

An activation response may result from threatening contamination through gustatory (e.g., sour milk), olfactory (e.g., garbage), auditory (e.g., clearing of the throat), visual (e.g.,

DISGUST OF THE OTHER SIDE

vomit), or tactile (e.g., a sticky substance) senses (Terrizzi Jr et al., 2013). Humans are adept at picking up signs of pathogens, as it is key to increasing chances of survival. One of the earliest indications of such disease-avoidant behavior in Hominids comes from hygienic practices of Neanderthals (Curtis, 2007).

During times of disease outbreak, salience of a pathogen can alter social behavior. When a pathogen is salient in an environment, it leads to decreased extraverted behavior, less openness, and social interaction (Schaller & Park, 2011; Mortensen, Becker, Ackerman, Neuberg, & Kenrick, 2010). Social avoidance plays an important role in preventing the spread of infectious diseases (Glass, Glass, Beyeler, & Min, 2006). It is particularly important during the early stages of a disease outbreak, when a vaccine is not available (Krings et al., 2012). The Severe Acute Respiratory Syndrome (SARS) outbreak is evident of how personalities may change when a pathogen is prevalent in the environment. Prior research associated with the SARS disease showed that stigma and social exclusionary measures were predisposed toward those perceived as susceptible (Lee, Chan, Chau, Kwok, & Kleinman, 2005).

To measure perceived vulnerability to disease (PVD), a self-report questionnaire was developed by (Duncan, Schaller, & Park, 2009). Prior testing of susceptibility to disease has been problematic, due to individual differences in concerns about the spread of pathogens (Schaller & Duncan, 2007). Researchers have argued that how vulnerable people feel to disease can be used as an explanation for behavior shaped by the emotion of disgust (Oaten et al., 2009).

Mechanisms of Disgust

To better understand a disgust response, it is useful to understand how the emotion of disgust is elicited. For high pathogen-prevalent stimuli, the emotion of disgust is elicited (Curtis,

DISGUST OF THE OTHER SIDE

Aunger, & Rabie, 2004). This emotional response occurs when a stimulus is perceived to be threatening and leads to a physical response (e.g., distancing from the offensive stimuli, nausea), (Rozin & Fallon, 1987; Schaller, 2006). The regulation of disgust has been associated with maintaining purity (Brenner & Inbar, 2015).

A response of disgust has been linked to avoidance of perceived threatening stimuli. Prior research indicates that a behavioral response of avoidance and exclusion evident by: avoiding ingesting acceptable, yet disgusting looking food, prejudices against those that are physically handicapped, elderly, foreigners, homosexuals, or obese (Schaller, 2006; Rozin, Millman, & Nemeroff, 1986; Duncan & Schaller, 2009; Park, Faulkner, & Schaller, 2003; Terrizzi Jr, Shook, & Ventis, 2010; Park, Schaller, & Crandall, 2007).

The Disgust Scale designed by Haidt, McCauley, and Rozin (1994), attempted to measure individual differences in Disgust Sensitivity. This scale was composed of eight different domains of disgust, including: food, animals, body products, sex, body envelope violations, death, and hygiene (Haidt et al., 1994). Aspects of this disgust scale were modified by Rozin, Haidt, & McCauley (2000), by using a two-factor model of disgust. The modified version of the disgust scale includes components of Core Disgust and Animal Reminder Disgust. Core Disgust stems from displeasure and threat of contamination (e.g. it would bother me to see a rat run across my path in a park), whereas Animal Reminder comes from relatedness to links of a human's animal-like past (e.g. your friend's pet cat dies and you have to pick up the dead body with your bare hands) (Olatunji et al., 2007). This two-factor model has been validated by researchers in a follow-up study (Olatunji, Williams, Lohr, & Sawchuk, 2005).

DISGUST OF THE OTHER SIDE

Olatunji et al. (2007) attempted to better understand the mechanisms of disgust by expanding upon the two-factor model. This revised DS-R scale added the factor of Contamination Disgust. This concern about fear of contagious diseases appears related to phobias; for instance, fear from spiders has been shown to be greater than fear from physical harm (de Jong & Muris, 2002). In the formation of groups, disgust is salient, such that it may provide protection, but at the same time enhance the spread of pathogens (Schaller, 2015). Connections between disgust and group psychology are discussed next.

Group Psychology, Disgust Sensitivity, Political Affiliation, & Political Attitudes toward Immigrants

Relevant to the current work, it is important to understand how political affiliation connects with disgust responses. Past work on this topic suggests that the very group-oriented nature of human politics plays a major role in disgust-related outcomes.

To understand how group psychology connects with both politics and disgust sensitivity, it is important to have a strong understanding of the psychology of group membership. Group membership in humans is derived from ancestral origins, where people lived among small tribes of family and close kin (Dunbar, 1992). Humans have a need to be in a group, as being in one provides more accessibility to resources and greater protection from conflict (Baumeister & Leary, 1995; Tooby & Cosmides, 2010). In this regard, individuals in groups hold similar views and affiliations due to location (Esser, 1998; Balish, Eys, & Schulte-Hostedde, 2013).

Due to group membership, individuals discriminate between their group (ingroup) over another that they are not affiliated with (outgroup), resulting in an inter-group bias (Hewstone, Rubin, & Willis, 2002). An inter-group bias leads to behaviors of discrimination, prejudice, and

DISGUST OF THE OTHER SIDE

stereotyping outgroups (Mackie & Smith, 1998). Those perceived to be in the ingroup are more positively viewed than outgroup members (Brewer, 1979; LeVine & Campbell, 1972; Mullen, Brown, & Smith, 1992; Perdue, Dovidio, Gurtman, & Tyler, 1990). Individuals cooperate with their ingroup even at a cost to themselves, suggesting that people not only take their own outcomes into account, but members of their group as well (Balliet, Wu, & De Dreu, 2014). It has been argued by researchers that ingroup cohesiveness over outgroup interactions, are an extension of the psychological mechanisms of the BIS (Schaller & Duncan, 2007).

Relevant to disgust sensitivity, are labels that members of ingroups place on outgroup members. Stereotypes toward members of outgroups have been classified using disgust-eliciting connotations. Researchers have argued that outgroup negativity and favorability toward the ingroup help to garner coalitional support, avoid disease, stay healthy, and recover from infection (Navarrete, Fessler, & Eng, 2007). Outgroup members, including foreigners and minorities, have been likened to disease-spreading animals (Suedfeld & Schaller, 2002). Increasingly negative attitudes toward foreigners have been evident for those who feel vulnerable to disease (Faulkner, Schaller, Park, & Duncan, 2004; Navarrete & Fessler, 2006). During the avian flu outbreak, those vulnerable to disease held less favorable views toward foreigners, and a greater tendency to avoid them (Krings et al., 2012). Among a group of pregnant women at the highest risk of infection during their first trimester, ethnocentrism and ingroup favoritism was found to be elevated (Navarrete et al., 2007).

Relevant to the current political atmosphere is how the disgust-elicited labels can affect actual policy. Placing ethnocentric labels on outgroup members even play a role in the attitudes toward policies and further hostility (Bandura, 1999). A proposed law in California (Proposition 187), that granted access to public resources for legal immigrants, led to a perceived bias

DISGUST OF THE OTHER SIDE

towards the outgroup of illegal Mexican immigrants. An outgroup bias was cited as a primary determinant of attitudes towards the bill (Lee & Ottati, 2002).

Relevant to the current work, it is important to understand how political ideology connects with disgust responses. Past work on this topic suggests that one's ideology plays a reliable role in disgust-related outcomes (Terrizzi Jr et al., 2013). An accepted contemporary definition of ideology in both political science and psychology involves both a moral and cognitive component (Jost, 2006). In other words, ideology is a way of summarizing why people do what they do. For the past 200 years, the ideology of a person has been placed in a category of "left" or "right" (Jost, 2006). This distinction has shown predictive validity in considering different behavior and feelings toward political issues (Graham, Haidt, & Nosek, 2009).

Differences in ideology can be explained by moral judgements, which plays a key role in disgust activation. For Liberals, emphasis is placed on Harm/care and Fairness/ reciprocity (Graham et al., 2009). In other words, Liberals tend to rely on ideals taken from suffering and victimization (Haidt & Joseph, 2004). Instead, for Conservatives, moral values are more equally dispersed amongst the five moral foundations of: Harm/care, Fairness/reciprocity, Ingroup/loyalty, Authority/ respect, and Purity/sanctity (Graham et al., 2009).

The identity as a liberal or conservative plays a role in attitudes toward disgust. Defining oneself as liberal or conservative has been linked to acceptance or resistance to change (Jost et al., 2003a; Conover & Feldman, 1981; Huntington, 1957). Differences between "liberals" and "conservatives" are based upon sentiments regarding inequality and social changes vs. tradition (Jost et al., 2003a, 2003b; Jost 2006). Regarding policy, although individuals appear critical of

DISGUST OF THE OTHER SIDE

information against their own beliefs, they tend to be in favor of the view of their political party over the policy itself (Ditto et al., 2018; Cohen, 2003).

Political Conservatism and Disgust Sensitivity

Heightened disgust sensitivity has been shown to influence political identity and sensitivity to political issues. Prior research indicates that those more prone to disgust sensitivity have been more politically conservative (Ahn et al., 2014; Inbar, Pizarro, Knobe, & Bloom, 2009; Inbar, Pizarro, Iyer, & Haidt, 2012; Smith, Oxley, Hibbing, Alford, & Hibbing, 2011). It has been argued that this conservative bias is a result of these voters having heightened moral and purity concerns than liberal voters (Inbar et al., 2009; Haidt & Graham, 2007). This bias was evident in a Dutch study that found disgust sensitivity was predictive of attitudes on distinct political issues and individual voting (Brenner & Inbar, 2015). Prior research on individual issues have shown disgust sensitivity to be predictive of conservative views toward gay marriage, premarital sex, and abortion (Smith et al., 2011).

Those high in conservatism have been shown to be more reactive to disgust-eliciting stimulus. A validated scale that measures how conservative one feels is the 12-Item Social and Economic Conservatism Scale (SECS), created by Everett (2013). This scale assesses conservative views with a social and economic component. In one study, those higher in disgust sensitivity tended to favor a more economically conservative view on taxes (Inbar et al., 2009). Socially conservative ideologies have been found to be predictive of attitudes towards outsiders and ethnocentric views (Dhont & Hodson, 2014). People who are more easily disgusted tend to be more politically conservative and just as much socially conservative (Inbar et al., 2009; Terrizzi et al., 2010; Inbar et al., 2012; Brenner & Inbar, 2015). Another study found a

DISGUST OF THE OTHER SIDE

relationship between disgust sensitivity and social conservatism, specific to inter-group affiliations and transmission of disease (Terrizzi Jr et al., 2010). In regards to economic conservatism, no significant association has been found with disgust sensitivity (Inbar et al., 2012; Shook, Ford, & Boggs, 2017).

Socioeconomic Status

Relevant to the current work, it is important to understand how Socioeconomic Status (SES) connects with disgust responses. Socioeconomic status has been found to play a role in moralizing disgust. Under the disgust condition of purity, those with lower SES were more likely to moralize the emotion (Horberg, Oveis, Keltner, & Cohen, 2009). Being able to regulate disgust has been closely linked to financial success. Participants who were able to regulate their emotions during a disgust-elicited movie, were more likely to have more disposable income and a higher SES (Côté, Gyurak, & Levenson, 2010). Past research has indicated that SES plays a key role in political participation. Those with higher SES have been shown to be more likely to be politically-active than those with lower SES (Milbrath & Goel, 1977; Peterson, 1990; Verba & Nie, 1972; Verba, Schlozman, & Brady, 1995).

Political Attitudes toward Immigrants

Previous studies have shown that disgust sensitivity is related to political orientation. A Dutch study measured how disgust was related to topics of individual political issues (Immigration and Islam, Sex and Sexual Preference, Nativism/ Isolationism, Sexism, Finances and Business, Sex in Society, Foreign Intervention). This study by Brenner and Inbar (2015) indicated that disgust sensitivity can be predictive of these individual political issues.

DISGUST OF THE OTHER SIDE

Specifically, they found that disgust sensitivity was aligned with preference toward voting for social conservatives.

Current Study: Goals of the Research

This study was designed to understand how disgust plays a role in feelings toward current political issues. However, no prior research has been done that studied individual attitudes toward immigrants in an American sample. Although Brenner and Inbar (2015) suggested political orientation was associated with individual issues, the nature of American politics holds differently. Unlike the United States with two main parties (Democrats and Republicans), in the Netherlands a wider variety of parties hold political power. In a similar regard, political issues relevant to the Netherlands may not be as pertinent to Americans. Moreover, no previous study has measured disgust attitudes toward salient modern-day issues. Considering the effects of disgust along the lines of vulnerability to disease, political issues, and studying voters' responses to security-related threats, holds the potential to shed further light on how disgust sensitivity and mechanisms of the BIS function.

A revised version of the Brenner and Inbar (2015) political item scale was developed to test individual issues related to security threats in an environment and views toward outsiders. The modified scale was more adaptive to current issues that concern American voters. This scale was controlled for, to better understand how attitudes toward immigrants are affected by the variables of Disgust Sensitivity, Perceived Vulnerability to Disease, and Political Conservatism.

The current study hypothesized that attitudes toward immigration policies would be strongly associated with conservative political attitudes. Prior research indicates that those who

DISGUST OF THE OTHER SIDE

are more conservative tend to be more disgust-sensitive. Thus, it was expected that those with conservative leanings would be more opinionated in policies towards outsiders, susceptible to disease, and disgust-sensitive. Consistent with Oaten et al. (2009) it was expected that the susceptibility of disease will be closely tied to how disgusted a participant feels.

Hypothesis 1: Conservatives would be more likely (than liberals) to be disgust-sensitive

Hypothesis 2: Conservatives would be more likely (than liberals) to respond to threats from outsiders (operationalized in terms of anti-immigration stances)

Hypothesis 3: Conservatives would be more reactive to disease-eliciting stimuli (than liberals)

Methodology

This study was largely designed to examine how mechanisms of the Behavioral Immune System may impact political behavior in individuals, by evaluating the degree to which political orientation relates to a xenophobic attitude toward immigration. In light of past research showing a relationship among disgust sensitivity, vulnerability to disease, xenophobia, and conservatism, this study also sought to examine the relationship between political conservatism and xenophobia (specific to US immigration issues) while controlling for the effects of disgust sensitivity and vulnerability to disease.

Participants

A total of 179 participants (98 Female, 51 Male, 8 Non-Binary; mean age = 22.79, *SD* = 6.25), aged 18 years or older, took part in an online study using Qualtrics software. Participants were recruited to Facebook communities and the SUNY New Paltz SONA system.

DISGUST OF THE OTHER SIDE

The study measured demographic information about participants (including age and socioeconomic status) conservatism, disgust sensitivity, perceived vulnerability to disease, and political orientation by issue domain.

Measures and Procedure

Participants were given a socioeconomic status scale, taken from Adler, Epel, Castellazzo, and Ickovics, (2000). A drawing of a ladder with 10 rungs was distributed and participants were told that the ladder represents their place in society. Participants were asked to place an “X” on where they stood on the ladder during their childhood. Participants were then asked to place an “X” on the ladder where they feel that they currently stand, (see Appendix C).

Participants were asked to take the 12-Item SECS designed by Everett (2013). This multi-item conservatism scale included a social and economic conservatism subscale, in which participants were directed to designate how positive or negative they feel about an issue, from 1-100 (see Appendix D).

Disgust sensitivity was measured by using the Olatunji et al. (2007) modified version of the Haidt, McCauley, and Rozin (1994) Disgust Scale. For the first part of the scale, to study Dichotomous Disgust Sensitivity, participants responded *True* or *False* to question prompts. The second part, to measure Likert Disgust Sensitivity, participants were asked how disgusting they would feel to certain experiences, on a 1-5 Likert Scale (see Appendix E).

Participants were instructed to take the Perceived Vulnerability to Disease Scale, from Park et al., (2003), to tap perceptions of susceptibility to disease. This scale was composed of

DISGUST OF THE OTHER SIDE

two subscales - Germ Aversion and Perceived Infectability. The Perceived Vulnerability to Disease Scale prompted participants to respond on a 1-5 Likert Scale to questions related to contracting a disease (see Appendix F).

The revision of Brenner and Inbar's scale pertaining to attitudes about political issues (2015) was developed to test individual issues related to immigration threats (see Appendix G; Questions 1-10 were new additions and 11-15 were taken from Brenner and Inbar, (2015). A 1-5 Likert Scale was used to ask participants to rate how strongly they feel about individual political issues (see Appendix G). The modified version of the Brenner and Inbar (2015) scale tested politically-relevant decision-making with a more narrow scope. By doing so, it was able to help tap issues that are relevant to modern-day life in the United States.

Results

This study was largely designed to examine mechanisms of the Behavioral Immune System, by evaluating the degree to which disgust relates to a xenophobic attitude toward immigration. In light of past research showing a relationship among disgust sensitivity, xenophobia, political orientation, and conservatism, this study also sought to examine the relationship between political conservatism and xenophobia (specific to US immigration issues) while controlling for the effects of disgust sensitivity.

Scale Reliability Analyses

To assess the reliability of the scales used in this research, internal-reliability analyses were conducted. These are presented in Table 1.

DISGUST OF THE OTHER SIDE

<u>Table 1</u>		
<u>Scale Name</u>	<u>Number of Items</u>	<u>Alpha</u>
Economic Conservatism	5	0.657
Social Conservatism	7	0.848
Dichotomous Disgust Sensitivity	13	0.652
Likert Disgust Sensitivity	12	0.765
Political Attitudes toward Immigrants	15	0.869
Germ Aversion	8	0.795
Perceived Infectability	7	0.673

Zero-Order Correlations among Primary Variables

Zero-order correlational analyses were computed for primary variables. Among these correlations, some interesting findings emerged. A correlation between Political Attitudes toward Immigrants and Social Conservatism was significant and positive ($r(120) = .41, p \sim .000$). This finding is consistent with Hypothesis 2, that those who are more conservative hold less favorable

DISGUST OF THE OTHER SIDE

attitudes toward immigrants. Similarly, the correlation between Political Attitudes toward Immigrants and Economic Conservatism was significant and positive ($r(120) = .51, p \sim .000$). This is suggestive of individuals more Economically Conservative holding less favorable attitudes toward Immigration.

Germ Aversion was significantly and positively related to Likert Disgust ($r(125) = .29, p = .001$). Dichotomous Disgust Sensitivity was also positively and significantly related to Germ Aversion ($r(125) = .51, p \sim .000$). These correlations are indicative of those high in Germ Aversion being more Disgust Sensitive. Perceived Infectability was strongly and negatively associated with Political Attitudes toward Immigrants ($r(120) = -.39, p \sim .000$), suggesting that those with higher Perceived Infectability were less concerned about immigration. Refer to Table 2 for complete Zero-Order Correlations among primary variables.

DISGUST OF THE OTHER SIDE

Table 2							
Zero-Order Correlations among Primary Variables							
	Dichotomous Disgust Sensitivity	Likert Disgust Sensitivity	Economic Conservatism	Social Conservatism	Political Attitudes toward Immigration	Germ Aversion	Perceived Infectability
Dichotomous Disgust Sensitivity	--						
Likert Disgust Sensitivity	.42**	--					
Economic Conservatism	-0.14	-0.04	--				
Social Conservatism	-0.14	-0.1	.61**	--			
Political Attitudes toward Immigration	-0.13	0.05	.51**	.41**	--		
Germ Aversion	.51**	.29**	-0.03	-0.04	0.07	--	
Perceived Infectability	-0.02	-0.01	-0.21**	-0.15	-.39**	-.05	--

DISGUST OF THE OTHER SIDE

Effects of Political Orientation on Perceived Vulnerability to Disease, Disgust Sensitivity, Conservatism, and Political Attitudes toward Immigration

Past research (Ahn et al., 2014; Inbar et al., 2009; Inbar et al., 2012; Smith et al., 2011) has found that conservatives tend to score relatively high on indices of disgust sensitivity. This study explored if self-reported Democrats differed from self-reported Republicans on disgust sensitivity to follow up on that past research. Interestingly, Democratic participants ($M = 5.8$, $SD = 3.52$) scored higher in Disgust Sensitivity than did Republican participants ($M = 3.6$, $SD = 3.03$; $t(113) = 2.21$, $p = .029$) for both Dichotomous and Likert Disgust Sensitivity for Democrats ($M = 37.2$, $SD = 8.79$) and Republicans ($M = 32.1$, $SD = 8.62$; $t(94) = 1.82$, $p = .072$). This finding is inconsistent with Hypothesis 1, that Conservatives would be more disgust-sensitive than Republicans.

Also, Democrats scored higher ($M = 23.0$, $SD = 6.86$) on Germ Aversion than Republicans ($M = 21.3$, $SD = 3.34$; $t(88) = 0.78$, ns) did. Democrats ($M = 19.7$, $SD = 5.74$) had higher scores than Republicans ($M = 13.7$, $SD = 5.14$; $t(88) = 3.16$, $p = .002$) on Perceived Infectability as well. Democrats being more susceptible to disease is contrary to prior findings and Hypothesis 3.

Consistent with prior research (Everett, 2013) on conservatives, Republicans ($M = 869.8$, $SD = 318.49$) scored higher in social conservatism than Democrats did ($M = 620.4$, $SD = 176.60$); $t(100) = -4.11$, $p = .001$). The same finding emerged for Democrats ($M = 286.7$, $SD = 140.99$) scoring higher than Republicans ($M = 487.8$, $SD = 203.63$; $t(99) = -4.83$, $p \sim .000$) did for Economic Conservatism to.

Regression Analysis Controlling for the Effects of Disgust Sensitivity

DISGUST OF THE OTHER SIDE

To examine the overall amount of variability in Political Attitudes toward Immigration explained by Disgust Sensitivity and conservatism (SECS), a multiple regression was conducted. A significant amount of variability was accounted for by the set of social conservatism, economic conservatism, Disgust Sensitivity, germ aversion, and perceived infectability ($R^2 = .38$, $F(6, 113) = 11.61$, $p \sim .000$). Thus, approximately 40% of the variability in Political Attitudes toward Immigration can be accounted for by information regarding participants' social conservatism, economic conservatism, Disgust Sensitivity, germ aversion, and perceived infectability. Next, semi-squared partial correlations were computed to address the unique amount of variability that Political Attitudes toward Immigration accounted for, separately, by social conservatism, economic conservatism, Disgust Sensitivity, germ aversion, and perceived infectability. This information is summarized in Table 2. As can be seen in the table, social conservatism uniquely accounts for a nearly significant amount of variability in Political Attitudes toward Immigration ($sr^2 = .02$, $p = .069$). However, Economic Conservatism had a significant amount of variability ($sr^2 = .06$, $p = .001$). Disgust Sensitivity did not account for a significant amount of variability in Political Attitudes toward Immigration for Likert ($sr^2 = .01$, ns) and Dichotomous ($sr^2 = .02$, ns). Germ Aversion also did not account for a significant amount of variability in Political Attitudes toward Immigration ($sr^2 = .01$, ns). Though, Perceived Infectability had a significant amount of variability ($sr^2 = .08$, $p \sim .000$); in other words, participants who perceived themselves as relatively infectible, had relatively positive attitudes toward immigration. These results are suggestive of the importance Conservatism plays in Political Attitudes toward Immigration, with Economic Conservatism being very significant and Social Conservatism close to significance. Additionally, Perceived Infectability plays a significant role in Political Attitudes toward Immigration. No significant relationship was found

DISGUST OF THE OTHER SIDE

for Disgust Sensitivity and Political Attitudes toward Immigration. Regression analyses are reported in Table 3.

DISGUST OF THE OTHER SIDE

Table 3			
<i>Multiple Regression Predicting Political Attitudes toward Immigration from Perceived Vulnerability to Disease, Disgust Sensitivity, and Conservatism (SECS)</i>			
<i>Criterion Variable: Political Attitudes toward Immigration</i>			
	b	B	<i>sr</i> ²
<i>Predictor Variables</i>			
Social Conservatism	0.01	0.17	0.02
Economic Conservatism	0.03	0.32	0.06
Dichotomous Disgust Sensitivity	-0.6	-0.17	0.02
Likert Disgust Sensitivity	0.12	0.1	0.01
Germ Aversion	0.16	0.11	0.01
Perceived Infectability	-0.47	-0.3	0.08

DISGUST OF THE OTHER SIDE

Ancillary Analyses

Here, correlations among several demographic variables are presented, that may relate to both political orientation and xenophobic attitudes related to immigration.

Age was not found to be significantly correlated to Political Attitudes toward Immigration ($r(112) = .07, ns$). Further, age was not related to Disgust Sensitivity, for both the Likert ($r(123) = .05, ns$) and Dichotomous ($r(146) = -.02, ns$) scales. Social Conservatism was not associated with Age ($r(130) = -.03, ns$). Similarly, Economic Conservatism was not correlated with Age either ($r(129) = -.08, ns$). No significant relationship was found between Age and Germ Aversion ($r(116) = -.06, ns$). Further, no significant correlation was found between Age and Perceived Infectability ($r(116) = -.003, ns$). Age was not found to be related to socio-economic status (SES), for both Relative ($r(144) = .003, ns$). Similarly, Age was not significantly correlated with Childhood SES ($r(143) = .01, ns$).

Childhood SES and Relative SES were found to be positively and strongly related to one another ($r(155) = .65, p \sim .000$). Political Attitudes toward Immigration had no significant relationship with Childhood SES ($r(119) = .02, ns$). Additionally, there was no association with Relative SES ($r(120) = -.04, ns$). No significant correlations were found for Childhood SES and Dichotomous Disgust Sensitivity ($r(156) = .07, ns$). Further, no significant relationship was found Relative SES and Dichotomous Disgust Sensitivity ($r(132) = .07, ns$). There was no significant association found between Childhood SES and Likert Disgust Sensitivity ($r(131) = .07, ns$). No significant correlation was found between Relative SES and Likert Disgust Sensitivity ($r(132) = .07, ns$). Germ Aversion was found not found to be significantly correlated with Relative SES ($r(125) = .07, ns$). Childhood SES was also not found to be significantly related to Childhood SES ($r(124) = .09, ns$). Perceived Infectability was not significantly

DISGUST OF THE OTHER SIDE

associated with Relative SES ($r(125) = .02, ns$) and Childhood SES ($r(124) = .04, ns$).

Correlational analyses for Social Conservatism and Relative SES revealed no significant relationship ($r(140) = -.13, ns$). Similarly, no statistically significant association was found between Social Conservatism and Childhood SES ($r(139) = -.07, ns$). For Economic Conservatism and Childhood SES, no significant correlation was found ($r(138) = .07, ns$). No significant association was found between Economic Conservatism and Relative SES ($r(139) = .14, ns$).

Interestingly in further correlational analyses, the Economic subscale of Conservatism was significant with COVID 19 ($r(120) = -.20, p = .025$). Specifically, more Economically Conservative voters felt less concerned about the Coronavirus. Though, the Social subscale was not significantly related to concerns about Coronavirus ($r(120) = -.10, ns$). Further, sentiments toward Coronavirus were strongly associated with Political Attitudes toward Immigration ($r(120) = -.32, p \sim .000$), such that those more concerned about Immigration felt less concerned about the virus. No significant relationship existed between feelings toward Coronavirus and the Germ Aversion subscale ($r(120) = .09, ns$). However, attitudes toward Covid 19 were significantly associated with Perceived Infectability ($r(120) = .37, p \sim .000$). This finding indicates that those who felt more infectable to diseases were also more concerned about the Coronavirus. Surprisingly, attitudes toward Coronavirus were not associated with Dichotomous ($r(120) = .09, ns$). Additionally, no significant correlation was found between Likert Disgust Sensitivity and the Coronavirus ($r(120) = .02, ns$).

Discussion

This research was designed to explore the social psychology surrounding the experience of disgust as it relates to political attitudes and issues. Specifically, this study sought to examine

DISGUST OF THE OTHER SIDE

the question of whether political affiliation relates to disgust sensitivity as well as if each of these variables relates to attitudes toward immigration. This issue is timely given the current controversies that pertain to attitudes toward immigration in the modern political landscape.

Predicting Attitudes Toward Immigration

The modified Brenner and Inbar (2015) scale was revised to address salient modern-day political issues in the United States. Mainly, this scale was meant to ascertain the extent to which attitudes toward immigrants concerned American voters. Prior research on the Behavioral Immune System has indicated that disease avoidance is associated with adverse attitudes toward members of outgroups. This scale was found to be reliably predictive of political attitudes toward immigrants.

In the regression analysis, conservatism was found to be significantly predictive of political attitudes toward immigrants. Economic conservatism was found to be significantly and positively linked to attitudes toward immigrants. Further, social conservatism was also positively and significantly predictive of attitudes toward immigrants. This finding suggests that conservatism, specifically both social and economic conservatism, have a positive and significant influence on how attitudes toward immigrants are formed.

The Politics of Disgust

The current study has novel findings about the extent to which disgust is related to politics. T-test analyses indicate that Democrats were more sensitive to Disgust than Republicans were. This finding holds contrary to prior research on how political attitudes can be shaped by disgust. Prior research has shown Republicans being more disgust-sensitive than Democrats (Ahn et al., 2014; Inbar et al., 2009; Inbar et al., 2012; Smith et al., 2011). Further, disgust

DISGUST OF THE OTHER SIDE

sensitivity did not account for a significant amount of variation in political attitudes toward immigrants.

The foundational emotion of disgust has been tied to purity (Brenner & Inbar, 2015). Individuals become disgusted by moral violations of purity (Inbar & Pizarro, 2014). Purity has been associated with low-standing attitudes toward and disgust of outgroup members. These negative sentiments have been evident to those looking sickly, obese, or low-caste members of society (Haidt & Graham, 2007).

These findings on prejudiced attitudes held by Democrats may be indicative of misaligned threat detection. The Behavioral Immune System has evolved to detect threats before they arise and contaminate individuals. However, prior research is suggestive of threats being faulty. A misaligned threat detection takes place due to the heavy investment required to find pathogens in the environment. Faulty threat detection has been evident in ingroup/outgroup relations. Views toward ingroup members have been shown to be generally more favorable than those in outgroups (Brewer, 1979; LeVine & Campbell, 1972; Mullen, Brown, & Smith, 1992; Perdue, Dovidio, Gurtman, & Tyler, 1990).

Though Republicans have been shown to be more sensitive to disgust-oriented threats, the finding from this study shows that Democrats were more disgust-sensitive suggests that behavior associated with detection may be more complicated than previous research has suggested. The nature of these findings can be suggestive of how disgust sensitivity may not be as predictive of political attitudes, as previous research indicates.

Perceived Vulnerability to Disease and Disgust Sensitivity

Prior research has linked the emotion of disgust with avoidance of disease. The link between disgust sensitivity and vulnerability to disease appears to be consistent with the current

DISGUST OF THE OTHER SIDE

study. In this study, both Dichotomous and Likert Disgust Sensitivity were significantly associated with Germ Aversion.

In a regression analysis that had political attitudes toward immigrants as the outcome variable and conservatism, disgust, and vulnerability to disease as the predictor variables, disgust Sensitivity (both Dichotomous and Likert subscales), was not found to be predictive of political attitudes toward immigrants. Germ Aversion was not significant of these attitudes. Prior research during an influenza outbreak has shown Germ Aversion to be suggestive of xenophobic attitudes (Faulkner et al., 2004; Green et al., 2010). Though, in the current findings, Perceived Infectibility was found to be negatively and significantly predictive of political attitudes toward immigrants. This finding could be indicative of the role that disease avoidance plays in shaping political attitudes. Perhaps this finding can be suggestive of how disease susception might be a better predictor of bias toward outgroup members more than disgust. Or, this finding might suggest that the mechanisms of how disgust shapes attitudes toward outsiders may be more complicated than previous research indicates. No prior evidence has been suggestive of how attitudes associated with disgust function during a virus outbreak.

Disgust and the Coronavirus Pandemic

The elicitation of disgust plays an important role in the maintenance of disease prevention. Previous research on outbreaks have shown that salience in an environment has the capacity to influence behavior. In the current study, about 60% of participants felt at least somewhat concerned about COVID 19. Interestingly, feelings toward the Coronavirus were not associated with Disgust Sensitivity. Though, attitudes about the virus were strongly related to how vulnerable to infection one felt. That is, the more prone to getting a disease one was, the more likely they were concerned about Coronavirus.

DISGUST OF THE OTHER SIDE

Concerns about the virus were also negatively linked to political sentiments such that people who reported being relatively economically conservative tended to feel less concerned about the virus. No association was found between social conservatism and the Coronavirus. Though, a significant relationship was found between economic conservatism and the virus; this finding indicates that those who felt less economically conservative, felt more strongly about the virus. Considering the nature of the outbreak and the inability for people to work, this finding makes sense. Forced shutdowns of industries and businesses globally have made the Coronavirus salient to the economic livelihoods of individuals.

Prior research on past outbreaks have been shown to make people more wary of outsiders (Green et al., 2010). Specifically, past studies during the avian bird flu outbreak have shown disease prevalence to be predictive of attitudes toward immigrants (Green et al., 2010). Consistent with prior research, those who felt less strongly toward immigrants were more likely to be concerned about the virus. Prior research has indicated that during the spread of a disease, individuals increase in-group favoritism. This strong finding appears interesting, considering the nature of the virus has impacted people without prejudice. Though, there has been evidence found that has suggested minority groups have been more at risk.

There were no significant correlations among demographic variables and any of the predictor variables. Age was not found to be significantly correlated with any variables. Similarly, socioeconomic status was not significantly associated with other variables.

The Behavioral Immune System

The research from the current study is rooted from evidence on the Behavioral Immune System. Prior research has suggested a key role that the Behavioral Immune System plays in disease regulation. This system uses psychological mechanisms to prevent the transmission of

DISGUST OF THE OTHER SIDE

deadly pathogens. Individuals regulate their responses based on sensing disease-salient threats in the environment.

The capacity to detect disease has been widely linked to the emotion of disgust. Disgust sensitivity has been shown to be a reliable predictor of avoidant behavior and reactivity to threats. However, in the current study, disgust sensitivity was not a strong predictor. Disgust sensitivity did not account for a significant amount of variability in the regression on political attitudes toward immigrants.

Disgust sensitivity was found to be significantly and positively associated with germ aversion. However, the disease-associated behavior from perceived vulnerability to disease (germ aversion and perceived infectability) were found to be more reliable predictors. In the regression, perceived infectability accounted for a significant amount of variability. These findings are suggestive of how vulnerability to disease may play a bigger role in behavioral regulation than previous research has suggested.

Limitations

In the current study are some limitations that hinder the universality of the findings. Due to a sample largely derived from a liberal-arts university, a large sample of liberal voters participated in the study. However, this sample meant that there were not a large number of conservative voters taking part.

Further, there may have been a limitation of the study due to the scope of the global pandemic. Prior research has not measured disgust sensitivity and attitudes about political issues during an outbreak. The current study indicated that how vulnerable one feels to disease may have been a better predictor of attitudes than was disgust sensitivity. Vulnerability to disease more consistently showed stronger relationships with variables than Disgust Sensitivity did.

DISGUST OF THE OTHER SIDE

To measure the different predictor variables in a more revealing matter, a larger sample size of participants should be used. The overall N in the current study was not relatively high. This limited number of participants reduced the overall power that this study had on enlightening political attitudes toward immigrants.

Future Directions

The current study has findings that can be further expanded upon to shed light on the role that disgust plays on political attitudes. In these findings, inconsistent with prior research, Democrats were more strongly reactive to disgust than Republicans were. Due to the novelty of this finding, research should address whether this may be a result of the sample derived, or something else.

Further, in a follow-up experimentation, a more diverse sample should be used for replication. With the limited number of Conservative participants, interesting findings shed light on the extent to which these voters were reactive to disease. However, the low number of participants from this political group limits the power that these current findings have on the nature of voters.

All measures here were self-report measures. Future research may benefit from using a broader array of kinds of psychological instruments. For instance, the use of Functional Magnetic Resonance Imaging (fMRI) can better identify political groups. Prior studies (Ahn et al., 2014) have found that using fMRI technology can be better predictive of political attitudes than self-report testing. The use of this technology can also assess the extent to which political attitudes toward immigrants are derived. With this technology, different regions of the brain associated with political attitudes can be identified.

DISGUST OF THE OTHER SIDE

Bottom Line

Inconsistent with prior research, this study showed a novel finding that Democrats were more sensitive to disgust than Republicans were. Though, it appeared that disease vulnerability may have been a better predictor of variables than disgust sensitivity. The devised political attitudes scale was reliable and predictive of the significant role that conservatism plays in political behavior. These findings are suggestive of sentiments toward outsiders being more complex than previous research has indicated.

At the end of the day, we live in a world that is being ravaged by political division. The current research sheds some light on how mechanisms of political decision-making are impacted by disgust and the threat of disease. Future work that extends this path of research may help ultimately reduce unhealthy political divisions in our world.

Reference

- Ahn, W. Y., Kishida, K. T., Gu, X., Lohrenz, T., Harvey, A., Alford, J. R., ... & Montague, P. R. (2014). Nonpolitical images evoke neural predictors of political ideology. *Current Biology, 24*(22), 2693-2699.
- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and social psychology review, 3* (3), 193 – 209
- Balish, S. M., Eys, M. A., & Schulte-Hostedde, A. I. (2013). Evolutionary sport and exercise psychology: Integrating proximate and ultimate explanations. *Psychology of Sport and Exercise, 14*, 413-422.
- Balliet, D., Wu, J., & De Dreu, C. K. W. (2014). Ingroup favoritism in cooperation: A meta-analysis. *Psychological Bulletin, 140*, 1556-1581.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological bulletin, 117*, 497.
- Brenner, C. J., & Inbar, Y. (2015). Disgust sensitivity predicts political ideology and policy attitudes in the Netherlands. *European Journal of Social Psychology, 45*(1), 27-38.
- Brewer, M. B. (1979). Ingroup bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin, 86*, 307–324.
- Cohen, G. L. (2003). Party over policy: The dominating impact of group influence on political beliefs. *Journal of personality and social psychology, 85*(5), 808.

DISGUST OF THE OTHER SIDE

Conover, P. J., & Feldman, S. (1981). The origins and meaning of liberal/ conservative self-identification. *American Journal of Political Science*, 25, 617–645.

Côté, S., Gyurak, A., & Levenson, R. W. (2010). The ability to regulate emotion is associated with greater well-being, income, and socioeconomic status. *Emotion*, 10(6), 923.

Curtis, V. A. (2007). Dirt, disgust and disease: a natural history of hygiene. *Journal of Epidemiology & Community Health*, 61(8), 660-664.

Curtis, V., Aunger, R., & Rabie, T. (2004). Evidence that disgust evolved to protect from risk of disease. *Proceedings of the Royal Society B*, 271, S131–S133.

Curtis, V., De Barra, M., & Aunger, R. (2011). Disgust as an adaptive system for disease avoidance behaviour. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 366(1563), 389-401.

de Jong, P. J., & Muris, P. (2002). Spider phobia: Interaction of disgust and perceived likelihood of involuntary physical contact. *Journal of Anxiety Disorders*, 16, 51– 65.

Ditto, P.H., Liu, B.S., Clark, C.J., Wojcik, S.P., Chen, E.E., Grady, R. H., Celniker, J. B., & Zinger, J. F. (2018). At least bias is bipartisan: A meta-analytic comparison of partisan bias in liberals and conservatives. *Perspectives on Psychological Science*, 1-19.

Dunbar, R. I. (1992). Neocortex size as a constraint on group size in primates. *Journal of human evolution*, 22(6), 469-493.

DISGUST OF THE OTHER SIDE

- Duncan, L. A. & Schaller, M. (2009). Prejudicial attitudes toward older adults may be exaggerated when people feel vulnerable to infectious disease: Evidence and implications. *Analyses of Social Issues and Public Policy*, 9, 97–115.
- Dhont, K., & Hodson, G. (2014). Does lower cognitive ability predict greater prejudice?. *Current Directions in Psychological Science*, 23(6), 454-459.
- Esser, J. K. (1998). Alive and well after 25 years: A review of groupthink research. *Organizational behavior and human decision processes*, 73(2-3), 116-141.
- Everett, J. A. (2013). The 12 item social and economic conservatism scale (SECS). *PloS one*, 8(12), e82131.
- Faulkner, J., Schaller, M., Park, J. H., & Duncan, L. A. (2004). Evolved Disease-Avoidance Mechanisms and Contemporary Xenophobic Attitudes. *Group Processes & Intergroup Relations*, 7, 4.
- Fincher, C. L., Thornhill, R., Murray, D. R., & Schaller, M. (2008). Pathogen prevalence predicts human cross-cultural variability in individualism/collectivism. *Proceedings of the Royal Society B: Biological Sciences*, 275(1640), 1279-1285.
- Glass, R. J., Glass, L. M., Beyeler, W. E., & Min, H. J. (2006). Targeted social distancing design for pandemic influenza. *Emerging Infectious Diseases*, 12, 1671–1681.
- Graham, J., Haidt, J., & Nosek, B.A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, 96, 1029-1046.

DISGUST OF THE OTHER SIDE

- Green, E. G., Krings, F., Staerklé, C., Bangerter, A., Clémence, A., Wagner-Egger, P., & Bornand, T. (2010). Keeping the vermin out: Perceived disease threat and ideological orientations as predictors of exclusionary immigration attitudes. *Journal of Community & Applied Social Psychology, 20*(4), 299-316.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research, 20*, 98-116.
- Haidt, J., & Joseph, C. (2004). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. *Daedalus, 133*(4), 55-66.
- Haidt, J., McCauley, C., & Rozin, P. (1994). Individual differences in sensitivity to disgust: A scale sampling seven domains of disgust elicitors. *Personality and Individual Differences, 16*, 701-713.
- Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual review of psychology, 53*(1), 575-604.
- Horberg, E. J., Oveis, C., Keltner, D., & Cohen, A. B. (2009). Disgust and the moralization of purity. *Journal of personality and social psychology, 97*(6), 963.
- Huntington, S. P. (1957). Conservatism as an Ideology. *The American political science review, 51*(2), 454-473.
- Inbar, Y., Pizarro, D. A., & Bloom, P. (2009). Conservatives are more easily disgusted than liberals. *Cognition and emotion, 23*(4), 714-725.
- Inbar, Y., Pizarro, D. A., Knobe, J., & Bloom, P. (2009). Disgust sensitivity predicts intuitive disapproval of gays. *Emotion, 9*(3), 435.
- Inbar, Y., Pizarro, D., Iyer, R., & Haidt, J. (2012). Disgust sensitivity, political conservatism, and voting. *Social Psychological and Personality Science, 3*(5), 537-544.

DISGUST OF THE OTHER SIDE

Inbar, Y., & Pizarro, D. A. (2014). Pollution and purity in moral and political judgment.

Advances in experimental moral psychology: Affect, character, and commitments,
111-129.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003a). Political conservatism as motivated social cognition. *Psychological Bulletin*, 129, 339–375.

Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. (2003b). Exceptions that prove the rule: Using a theory of motivated social cognition to account for ideological incongruities and political anomalies. *Psychological Bulletin*, 129, 383–393.

Jost, J. T. (2006). The end of the end of ideology. *American Psychologist*, 61, 651–670.

Kavaliers, M., Choleris, E., & Pfaff, D. W. (2005). Recognition and avoidance of the odors of parasitized conspecifics and predators: differential genomic correlates. *Neuroscience & Biobehavioral Reviews*, 29(8), 1347-1359.

Kiesecker, J. M., Skelly, D. K., Beard, K. H., & Preisser, E. (1999). Behavioral reduction of infection risk. *Proceedings of the National Academy of Sciences*, 96(16), 9165-9168.

Krings, F., Green, E. T., Bangerter, A., Staerklé, C., Clémence, A., Wagner-Egger, P., & Bornand, T. (2012). Preventing Contagion With Avian Influenza: Disease Salience, Attitudes Toward Foreigners, and Avoidance Beliefs 1. *Journal of Applied Social Psychology*, 42(6), 1451-1466.

Lee, S., Chan, L. Y., Chau, A. M., Kwok, K. P., & Kleinman, A. (2005). The experience of SARS-related stigma at Amoy Gardens. *Social science & medicine*, 61(9), 2038-2046.

DISGUST OF THE OTHER SIDE

- Lee, Y. T., & Ottati, V. (2002). Attitudes toward US immigration policy: The roles of in-group-out-group bias, economic concern, and obedience to law. *The Journal of Social Psychology, 142*(5), 617-634.
- LeVine, R. A., & Campbell, D. T. (1972). *Ethnocentrism: Theories of conflict, ethnic attitudes, and group behavior*. New York, NY: Wiley.
- Mackie, D. M., & Smith, E. R. (1998). Intergroup relations: Insights from a theoretically integrative approach. *Psychological review, 105*(3), 499.
- Milbrath, L., & Goel, M. C. (1977). *How and why do people get involved in politics*.
- Mortensen, C. R., Becker, D. V., Ackerman, J. M., Neuberg, S. L., & Kenrick, D. T. (2010). Infection breeds reticence: The effects of disease salience on self-perceptions of personality and behavioral avoidance tendencies. *Psychological Science, 21*(3), 440-447.
- Mullen, B., Brown, R., & Smith, C. (1992). Ingroup bias as a function of salience, relevance, and status: An integration. *European Journal of Social Psychology, 22*, 103–122.
- Navarrete, C. D., & Fessler, D. M. (2006). Disease avoidance and ethnocentrism: The effects of disease vulnerability and disgust sensitivity on intergroup attitudes. *Evolution and Human Behavior, 27*(4), 270-282.
- Navarrete, C. D., Fessler, D. M., & Eng, S. J. (2007). Elevated ethnocentrism in the first trimester of pregnancy. *Evolution and Human Behavior, 28*(1), 60-65.
- Nesse, R. M. (2005). Natural selection and the regulation of defenses: A signal detection analysis of the smoke detector principle. *Evolution and Human Behavior, 26*(1), 88-105.

DISGUST OF THE OTHER SIDE

Oaten, M., Stevenson, R. J., & Case, T. I. (2009). Disgust as a disease-avoidance mechanism.

Psychological bulletin, 135(2), 303.

Olatunji, B. O., Williams, N. L., Lohr, J. M., & Sawchuk, C. N. (2005). The structure of disgust:

Domain specificity in relation to contamination ideation and excessive washing.

Behaviour Research and Therapy, 43, 1069–1086.

Olatunji, B. O., Williams, N. L., Tolin, D. F., Abramowitz, J. S., Sawchuk, C. N., Lohr, J. M., &

Elwood, L. S. (2007). The Disgust Scale: Item Analysis, Factor Structure, and

Suggestions for Refinement. *Psychological Assessment*, 19(3), 281-297.

Park, J. H., Faulkner, J., & Schaller, M. (2003). Evolved disease-avoidance processes and

contemporary anti-social behavior: Prejudicial attitudes and avoidance of people with

physical disabilities. *Journal of Nonverbal Behavior*, 27, 65–87.

Park, J. H., Schaller, M., & Crandall, C. S. (2007). Pathogen-avoidance mechanisms and the

stigmatization of obese people. *Evolution and Human Behavior*, 28, 410–414.

Perdue, C. W., Dovidio, J. F. Gurtman, M. B., & Tyler, R. B. (1990). “Us” and “them”: Social

categorization and the process of intergroup bias. *Journal of Personality and Social*

Psychology, 59, 475– 486.

Peterson, S. A. (1990). *Political behavior: Patterns in everyday life* (Vol. 177). SAGE

Publications, Incorporated.

Rozin, P. (1990). Social and moral aspects of food and eating. *The legacy of Solomon Asch:*

Essays in cognition and social psychology, 97, 110.

DISGUST OF THE OTHER SIDE

- Rozin, P., Millman, L., & Nemeroff, C. (1986). Operation of the laws of sympathetic magic in disgust and other domains. *Journal of personality and social psychology*, 50(4), 703.
- Rozin, P., Haidt, J., & McCauley, C. R. (2000). Disgust. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (2nd ed., pp. 637– 653). New York: Guilford Press.
- Rozin, P., & Fallon, A. E. (1987). A perspective on disgust. *Psychological review*, 94(1), 23.
- Schaller, M. (2006). Parasites, behavioral defenses, and the social psychological mechanisms through which cultures are evoked. *Psychological Inquiry*, 17(2), 96-101.
- Schaller, M. (2015). The behavioral immune system. *The handbook of evolutionary psychology*, 1-19.
- Schaller, M., & Duncan, L. A. (2007). The behavioral immune system: Its evolution and social psychological implications. In Forgas J.P., Haselton M.G., & von Hippel W.(Eds.), *Evolution and the social mind: Evolutionary psychology and social cognition* (pp. 293–307). New York: Psychology Press.
- Schaller, M., & Park, J. H. (2011). The behavioral immune system (and why it matters). *Current directions in psychological science*, 20(2), 99-103.
- Shook, N. J., Ford, C. G., & Boggs, S. T. (2017). Dangerous worldview: A mediator of the relation between disgust sensitivity and social conservatism. *Personality and Individual Differences*, 119, 252-261.
- Smith, K. B., Oxley, D., Hibbing, M. V., Alford, J. R., & Hibbing, J. R. (2011). Disgust sensitivity and the neurophysiology of left-right political orientations. *PloS one*, 6(10), e25552.

DISGUST OF THE OTHER SIDE

- Suedfeld, P., & Schaller, M. (2002). Authoritarianism and the Holocaust: Some cognitive and affective implications. *What social psychology can tell us about the Holocaust: Understanding perpetrator behavior*, 68-90.
- Terrizzi Jr, J. A., Shook, N. J., & McDaniel, M. A. (2013). The behavioral immune system and social conservatism: A meta-analysis. *Evolution and Human Behavior*, 34(2), 99-108.
- Terrizzi Jr, J. A., Shook, N. J., & Ventis, W. L. (2010). Disgust: A predictor of social conservatism and prejudicial attitudes toward homosexuals. *Personality and individual differences*, 49(6), 587-592.
- Tooby, J., & Cosmides, L. (2010). Groups in mind. In Henrik Høgh-Olesen (ed.), *Human Morality and Sociality: Evolutionary and Comparative Perspectives*. Palgrave-Macmillan. pp. 91-234.
- Verba, Sydney, and Norman H. Nie. 1972. *Participation in America*. New York: Harper
- Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Harvard University Press.

Appendices

Appendix A

Project Title: A study of political attitudes

Announcement Title: ‘Political Policy Attitudes of Disgust’

Advertisement:

Hello Everyone,

Are you interested in the psychology of political attitudes?

Join us on this exciting research opportunity and take this brief survey at SUNY New Paltz. It should take only 10 minutes to complete. In order to participate in this survey, you must be 18 years or older.

If you are planning to obtain New Paltz Department Subject Pool Credit for your participation, instead of clicking on the direct link to the survey, you **MUST** first access the survey through the SONA systems website (https://newpaltz.sona-systems.com/default.aspx?p_return_experiment_id=438).

Direct link to survey:

https://newpaltz.co1.qualtrics.com/jfe/form/SV_cNo1GgvBdmMHUtT?fbclid=IwAR1T-K1vYgPLSPuisVjZN6T_CfCxrT5ghZAqwTHJsxtQpSeXNXoko8FLPzA

Your participation in this study would be greatly appreciated!

DISGUST OF THE OTHER SIDE

If you have any questions or concerns, feel free to contact the principal investigator Jeremy Weintraub at weintraj2@hawkmail.newpaltz.edu.

Thank you!

Sincerely,

Jeremy Weintraub

Principal Investigator

weintraj2@hawkmail.newpaltz.edu

INFORMED CONSENT:

Purpose:

Thank you for participating in our study! The purpose of this research is to examine psychological variables that relate to the function of disgust. Previous research has found that disgust has a profound effect on policy and politically based choices. The overall objective of this research is to enhance our understanding of this psychological phenomenon.

Procedure:

This survey should take about 10 minutes to fill out and should be completed in one session.

Risks and Benefits:

The risks associated with your participation are minimal and the proposed scenarios are similar to ones you may encounter in your everyday life. If you experience distress as a result of your participation, please contact the SUNY New Paltz Psychological Counseling Center at **845-257-**

DISGUST OF THE OTHER SIDE

2920. Benefits to you include being able to obtain experience, as well as contributing to beneficial psychological research.

Confidentiality:

Your anonymity is guaranteed; once you have completed the survey, it will not be possible to identify who it was completed by. There are no questions that ask for identifying information (e.g., names).

This study is voluntary and you are free to refuse or withdraw your participation at any time. If you have questions regarding the procedures, please contact: Principal Investigator Jeremy Weintraub at weintraj2@hawkmail.newpaltz.edu.

If you have concerns or are unclear about your rights as a subject, please contact the Chair of the Institutional Review Board, SUNY New Paltz at (845) 257-3282.

The Institutional Review Board of SUNY New Paltz has found that this research meets the criteria for human subjects according to Federal guidelines.

Consent:

By clicking the below button, you are consenting to participate in this study.

Appendix B

Demographic Questions:

Age (*Under 18, 18-100*)

What is your nationality? (*United States, Other*)

DISGUST OF THE OTHER SIDE

What region of the country are you from? (*Northeast, Midwest, South, West*)

What type of environment did you grow up in? (*Urban/Suburban/Rural*)

Highest level of education completed (*High School Diploma/ GED, Associate's Degree, Bachelor's Degree, Postgraduate Degree*)

Gender Identity (*Male, Female, Non-Binary, Prefer not to Answer*)

Are you eligible to vote in the United States? (*Yes, No*)

What political party do you primarily identify with? (*Democratic, Republican, Other ____ (fill in space), prefer not to answer*)

What would you consider yourself (*Very Conservative - 1 Moderate - 5 Very Liberal - 10*)

Please indicate on the scale below your political leanings (*Very Liberal - 1 2 3 4 5 - Very Conservative*)

Appendix C

Socioeconomic Status

DISGUST OF THE OTHER SIDE



Think of this ladder as representing where people stand in the United States.

At the top of the ladder are the people who are the best off – those who have the most money, the most education, and the most respected jobs.

At the bottom are the people who are the worst off – who have the least amount of money, the least education, and the least respected jobs or no job.

The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Select the letter of the rung where you think you / your family stand currently relative to other families in the United States.

Where on this ladder are you currently? (A, B, C, D, E, F, G, H, I, J)

Select the letter of the rung where you think your family stood during your early childhood, relative to other families in the United States.

DISGUST OF THE OTHER SIDE

Where on this ladder was your family during early childhood (ages 0 – 12)? (A, B, C, D, E, F, G, H, I, J)

Appendix D

The 12-Item Social and Economic Conservatism Scale (SECS)

*For coding purposes, “S” refers to Social Conservatism Scale, “E” refers to Economic Conservatism Scale

“Please indicate the extent to which you feel positive or negative towards each issue. Scores of 0 indicate greater negativity, and scores of 100 indicate greater positivity. Scores of 50 indicate that you feel neutral about the issue.”

1. Abortion. (S)
2. Welfare benefits (reverse scored). (E)
3. Tax (reverse scored).
4. Immigration (reverse scored).
5. Limited government. (E)
6. Military and national security. (S)
7. Religion. (S)
8. Gun ownership. (E)
9. Traditional marriage. (S)

DISGUST OF THE OTHER SIDE

10. Traditional values. (S)

11. Fiscal responsibility. (E)

12. Business. (E)

13. The family unit. (S)

14. Patriotism. (S)

Appendix E

Disgust Scale—Revised (DS–R): Items, Scaling, and Scoring:

DS–R Part I: (Dichotomous Disgust Scale)

Please select true or false

I might be willing to try eating monkey meat, under some circumstances. (*True, False*)

It would bother me to see a rat run across my path in a park. (*True, False*)

Seeing a cockroach in someone else’s house doesn’t bother me. (*True, False*)

It bothers me to hear someone clear a throat full of mucus. (*True, False*)

If I see someone vomit, it makes me sick to my stomach. (*True, False*)

It would bother me to be in a science class, and see a human hand preserved in a jar. (*True, False*)

DISGUST OF THE OTHER SIDE

It would not upset me at all to watch a person with a glass eye take the eye out of the socket.

(True, False)

It would bother me tremendously to touch a dead body. *(True, False)*

I would go out of my way to avoid walking through a graveyard. *(True, False)*

I never let any part of my body touch the toilet seat in a public washroom. *(True, False)*

I probably would not go to my favorite restaurant if I found out that the cook had a cold. *(True, False)*

Even if I was hungry, I would not drink a bowl of my favorite soup if it had been stirred with a used but thoroughly washed flyswatter. *(True, False)*

It would bother me to sleep in a nice hotel room if I knew that a man had died of a heart attack in that room the night before. *(True, False)*

DS-R Part II: (Likert Disgust Scale)

Please rate how disgusting you would find the following experiences. (Strongly Disagree - 1 Strongly Agree - 5)

If you see someone put ketchup on vanilla ice cream and eat it. *(Strongly Disagree - 1 Strongly Agree - 5)*

You are about to drink a glass of milk when you smell that it is spoiled. *(Strongly Disagree - 1 Strongly Agree - 5)*

DISGUST OF THE OTHER SIDE

You see maggots on a piece of meat in an outdoor garbage pail. (*Strongly Disagree - 1 Strongly Agree - 5*)

You are walking barefoot on concrete and step on an earthworm. (*Strongly Disagree - 1 Strongly Agree - 5*)

While you are walking through a tunnel under a railroad track, you smell urine. (*Strongly Disagree - 1 Strongly Agree - 5*)

You see a man with his intestines exposed after an accident. (*Strongly Disagree - 1 Strongly Agree - 5*)

Your friend's pet cat dies and you have to pick up the dead body with your bare hands. (*Strongly Disagree - 1 Strongly Agree - 5*)

You accidentally touch the ashes of a person who has been cremated. (*Strongly Disagree - 1 Strongly Agree - 5*)

You take a sip of soda and realize that you drank from the glass that an acquaintance of yours had been drinking from. (*Strongly Disagree - 1 Strongly Agree - 5*)

You discover that a friend of yours changes underwear only once a week. (*Strongly Disagree - 1 Strongly Agree - 5*)

A friend offers you a piece of chocolate shaped like dog-doo. (*Strongly Disagree - 1 Strongly Agree - 5*)

As part of a sex education class, you are required to inflate a new lubricated condom, using your mouth. (*Strongly Disagree - 1 Strongly Agree - 5*)

Appendix F

Perceived Vulnerability to Disease Scale:

*For coding purposes, “G” refers to Germ Aversion Subscale, “P” refers to Perceived Infectability Subscale

Please rate how you would find the following: (*Strongly Disagree - 1 Strongly Agree - 5*)

In general, I am very susceptible to colds, flu and other infectious diseases. (*Strongly Disagree - 1 Strongly Agree - 5*) (P)

I am unlikely to catch a cold, flu or other illness, even if it is ‘going around’. (*Strongly Disagree - 1 Strongly Agree - 5*) (P)

If an illness is ‘going around’, I will get it. (*Strongly Disagree - 1 Strongly Agree - 5*) (P)

My immune system protects me from most illnesses that other people get. (*Strongly Disagree - 1 Strongly Agree - 5*) (P)

I am more likely than the people around me to catch an infectious disease. (*Strongly Disagree - 1 Strongly Agree - 5*) (P)

My past experiences make me believe I am not likely to get sick even when my friends are sick. (*Strongly Disagree - 1 Strongly Agree - 5*) (P)

I have a history of susceptibility to infectious disease. (*Strongly Disagree - 1 Strongly Agree - 5*) (P)

DISGUST OF THE OTHER SIDE

I prefer to wash my hands pretty soon after shaking someone's hand. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

I avoid using public telephones because of the risk that I may catch something from the previous user. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

I do not like to write with a pencil someone else has obviously chewed on. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

I dislike wearing used clothes because you do not know what the last person who wore it was like. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

I am comfortable sharing a water bottle with a friend. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

It really bothers me when people sneeze without covering their mouths. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

It does not make me anxious to be around sick people. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

My hands do not feel dirty after touching money. (*Strongly Disagree - 1 Strongly Agree - 5*) (G)

Appendix G

Political Attitudes toward Immigrants Scale

Please rate how you would find the following: (*Strongly Disagree - 1 Strongly Agree - 5*)

DISGUST OF THE OTHER SIDE

Parents who cross the border illegally should be removed from the United States (*Strongly Disagree - 1 Strongly Agree - 5*)

Children of parents who cross the border illegally should be separated from their parents (*Strongly Disagree - 1 Strongly Agree - 5*)

Those who cross the border illegally should not be able to become American citizens (*Strongly Disagree - 1 Strongly Agree - 5*)

Individuals who cross the border illegally should not be able to vote in the United States (*Strongly Disagree - 1 Strongly Agree - 5*)

Illegal immigrants should pay more taxes than other Americans do (*Strongly Disagree - 1 Strongly Agree - 5*)

Individuals who cross the border should be able to speak English (*Strongly Disagree - 1 Strongly Agree - 5*)

Illegal immigrants should contribute to build a wall between the United States and Mexico (*Strongly Disagree - 1 Strongly Agree - 5*)

There should be a border between Mexico and the United States (*Strongly Disagree - 1 Strongly Agree - 5*)

There should be a border between Canada and the United States (*Strongly Disagree - 1 Strongly Agree - 5*)

It should be impossible to build new mosques in the United States (*Strongly Disagree - 1 Strongly Agree - 5*)

DISGUST OF THE OTHER SIDE

Immigrants that have committed a crime should be sent back to their land of origin (*Strongly Disagree - 1 Strongly Agree - 5*)

Women who work for the government shouldn't be allowed to wear a headscarf (*Strongly Disagree - 1 Strongly Agree - 5*)

Police officers shouldn't give any indication of their beliefs, such as by wearing a headscarf (*Strongly Disagree - 1 Strongly Agree - 5*)

The government should spend less on foreign aid (*Strongly Disagree - 1 Strongly Agree - 5*)

How concerned are you about the Coronavirus? (*Strongly Disagree - 1 Strongly Agree - 5*)

Appendix H

Debriefing:

Thank you for participating in the survey!

If you have any questions or concerns, you can contact Jeremy Weintraub at weintraj2@hawkmail.newpaltz.edu.

If you would like to see how your responses compare to others and be sent the advanced-report, displaying the current results of the survey, please email Jeremy Weintraub at weintraj2@hawkmail.newpaltz.edu.with just the subject line "**report.**"

If you are planning to secure *subject pool credits* (via the Psychology Department), please save this information as proof of participation, in case there are any issues with releasing your credits.

If your credits are not released, please send an email to the Psychology Subject Pool

DISGUST OF THE OTHER SIDE

<psychsubjectpool@newpaltz.edu> with the following code: **“PAD”** in the subject and your name, Banner ID, the title of the study ("Political Policy Attitudes of Disgust") - and what you'd like the one credit allocated to within your SONA account (e.g., Psychology Major, PSY 272 section 3, etc).

If this survey caused you to feel uncomfortable at any point, you may contact the SUNY New Paltz Psychological Counseling Center at 845.257.2920.