DEMOCRACY AND DISGUST: OPINION PRIMING

FOR MILITARY INTERVENTION

by

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ABSTRACT

This paper seeks to build on two fundamental bodies of research pertaining to the emotion of disgust as a behaviorally relevant construct. The first explores the impact of disgust on interpersonal relations, citing evolutionary advantages as the mechanism behind behavioral tendencies such as in-group favoritism and out-group derogation. For example, pathogenic disgust has been found to regulate interpersonal behavior by bolstering negative perceptions of out-groups and strengthening the social ties of one's inner circle. These findings are likely explained by the historical danger posed by foreign pathogens to which the in-group had not yet developed immunity. Thus, there was a natural selection advantage for those who could identify disease-salient stimuli and regulate in-versus out-group behavior accordingly. The second body of research ties these behavioral tendencies to political attitudes. Specifically, previous research suggests a causal link between disgust sensitivity and political conservatism. These findings stand for both chronic disgust sensitivity, as well as temporally primed disease cues.

The present study seeks to fill holes in previous research by examining how the emotion of disgust might affect political attitudes towards certain policies. Specifically, I ask how priming for disgust might affect the public's proclivity for military conflict. To do so, I operationalize military conflict proclivity into three dependent variables, each of which has implications for war attitudes. Measures for in-group favoritism, out-group derogation, and attitudes towards military conflict are constructed and compared to a control group receiving no disgust prime. Utilizing a survey experiment with 742 subjects and various methodologies for eliciting disgust, I fail to find a causal connection between disgust and any of the dependent variables. The implications of these findings are discussed, specifically in regard to the validity of previous studies and the role of identity politics in the modern political era.

**Introduction**

Democracy, at its most fundamental level, is a government that draws its power from the people that live within it. Theoretically, therefore, the opinion of the public determines the legislative agenda and the ways in which representatives vote.  Indeed, a number of studies have found that public opinion does have a substantial effect in shaping public policy (e.g., Burstein 2003; Page and Shapiro 1983; Stimson, Mackuen, and Erikson 1995). However, the American public is notoriously uninformed on political issues ranging from the functions of governmental institutions and processes to the elected political figures that represent them (Delli Carpini 2000; Galston 2001).

This level of civic disengagement is especially pronounced in the foreign policy realm. Scholars have found that the public lacks considerable knowledge about international affairs and foreign policy decision-making (Baum and Potter 2007; Cohen 1995; Powlick and Katz 1998). The level of foreign policy ignorance has been attributed to the lack of prioritization of and attention to these issues among the public (Cohen 1995). It is only after an increase in the perceived salience of a foreign policy topic—generally facilitated by either heightened attention from the media or the potential for a direct effect to the public at large—that people begin to actively engage in these issues (Baum and Potter 2007; Knecht 2011; Powlick and Katz 1998).

Even when the public begins to engage in foreign policy issues, political elites can still exert their will upon foreign policy matters by framing issues a certain way or priming subconscious cues through the media in order to elicit the desired response from the public (Baum and Potter 2007; Edelman 1993). Given that elected officials have varying influence on public opinion (Page, Shapiro, and Dempsey 1987; Powlick and Katz 1998; Edwards III 2008), but the opinions of experts and the media are reliably influential (Page, Shapiro, and Dempsey

1987), the media is likely viewed as the political elites' best option for framing and influencing

public opinion (Powlick and Katz 1998).[1] Government officials and political elites are able to

deliver slanted political messaging via the media that acts to shape public opinion in the direction

that is desired (Baum and Potter 2007; Edelman 1993; Entman and Rojecki 1993; Zaller and

Chiu 1996), and this is particularly the case for issues about which the public otherwise lacks

knowledge, such as international affairs and foreign policy.

Consequently, the ability of political elites to influence public opinion through the media

raises concerning questions about the core principles of democracy. There seems to be an

inherent disjunction between the fundamental conception of democratic governance and the

ways in which political elites shape political agendas. While political elites may purport to hold

public opinion as the causal mechanism behind their policy decisions, they are actually shaping

those opinions on the front end in ways that comport with their objectives (Burstein 2003; Gilens

and Page 2014). This helps to explain why public opinion seems to take on little importance

when it goes against the interests of political or economic elites (Gilens and Page 2014).

To explore this in greater depth, a large number of scholarly works have looked into how

variations in the framing and priming of issues can affect public opinion. Theories on agenda

setting and priming generally concur that the level of media attention directed towards a

particular issue can affect the perceived salience of that issue among the public (Scheufele 2000;

Walgrave and Aelst 2006). However, more importantly, it has also been found that public

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[1] Page, Shapiro, and Dempsey (1987) found the opinions of elected officials and representatives to have no effect on
public opinion, something they attribute to skepticism and distrust amid the partisan landscape. There is, however, a
dearth of information when studying this relationship; a large body of literature exists that explores the role of public
opinion on public officials' behavior, but not the other way around. Generally speaking, however, partisanship and
changing approval ratings are found to make the influence of even the highest public offices volatile at best
(Edwards III 2008). Therefore, the media, which is found to be the most influential on public opinion (Page,
Shapiro, and Dempsey 1987), is likely a more reliable option for influencing the public in considerable ways.
Moreover, the nuances of this relationship are not paramount to the present theory, which generally hinges on

opinion can be manipulated either through issue framing or the presence of certain primes that trigger heuristic associations. For example, a study conducted by Goff, Eberhardt, Williams, and Jackson (2008) found that implicit racial associations linking African Americans to apes carried significant implications when cued in respondents. Even in the absence of pre-existing racial biases, these implicit Black-ape associations, when primed, led to a greater endorsement of violence against Black suspects and a higher proclivity towards use of the death penalty (Goff, Eberhard, Williams, and Jackson 2008). Other studies find similar results, where heuristic ethnic and racial cues can be used to manipulate public opinion on issues like crime or immigration (Brader, Valentino, and Suhay 2008; Dixon and Azocar 2007; Mendelberg 2008).

The present study builds on this body of work by broadly examining how priming the public in certain ways impacts public opinion.  Specifically, I ask: how does priming the public with the feeling of disgust impact their willingness to engage in military conflict?  In what follows, I develop my theoretical framework for understanding the ways in which disgust impacts attitudes towards U.S. military intervention. Specifically, I hypothesize that priming for disgust will cause public opinion to move in a pro-interventionist direction through the mechanisms of out-group derogation and in-group favoritism. Priming for disgust will increase in-group favoritism and out-group negativity biases which in turn generate an increased proclivity for military conflict. I test this theory by designing a single-factor experiment with three levels in which subjects are primed for disgust in one of two different ways and compared to a control condition in which subjects are not primed for disgust. I find that priming for disgust has no effect on out-group derogation, in-group favoritism, or proclivity for military conflict. The results of the survey experiment call into question prior research dealing with disgust as a

politically relevant prime. The question of what role partisanship plays in our politics today is also explored.

## Theoretical Considerations

*The Effects of Disgust*

The emotion of disgust has been cited as a powerful behavioral motivator, both physiologically and psychologically. Physiologically, disgust is a biological reaction with roots in the evolutionary benefit acquired by correctly identifying and expunging foreign threats (Inbar, Pizarro, Iyer, and Haidt 2012). In other words, the emotion of disgust evolved to help protect organisms from disease, illness, and contamination (Davey 2011). However, a growing body of research has developed that addresses the potential psychological underpinnings of disgust that stretch beyond the mere physiological reactions to, say, a piece of contaminated food (Davey 2011). Disgust has the potential to regulate behavior in interpersonal and social constructs, where heuristic cues have developed that promote the learned designation of potential sources of contamination or threat and thereby regulate interpersonal and social interactions (Davey 2011; Navarrete and Fessler 2006).

Specifically, new research suggests disgust to be a learned behavioral tendency to avoid people associated with disease or disease-related cues (Rottman 2014; Schaller and Park, 2011). However, the implications stretch beyond mere disease recognition. Disgust is an overarching reaction that fails to differentiate between stimuli indicating real and simply perceived threats (Schaller and Park 2011). These identification mechanisms tend to be overly discriminatory in their approach due to the high survival costs associated with failing to identify legitimate contaminants (Kurzban and Leary 2001). Moreover, disgust can facilitate heightened disease-avoidance mechanisms when the perceiver of disease is feeling especially vulnerable to infection

(Schaller and Park 2011). The emotion of disgust, therefore, is not solely dependent upon the characteristics inherent to the disease threat itself.

*Disgust and Out-Group Derogation*

Taken together, these findings carry broad implications for social stigmatization and group dynamics. A number of studies have found linkages between feelings of disgust and the presence of out-group biases. For example, repeated studies have found increased levels of xenophobia and greater negativity biases towards foreign populations when subjects displayed a higher perception of disease vulnerability, both in the form of chronic differences in disgust sensitivity, as well as a reaction to temporal disgust primes (Faulkner, Schaller, Park, and Duncan 2004; Navarrete and Fessler 2006). The negative reaction towards foreign groups that follows the presence of disgust eliciting stimuli is likely due to the evolutionary mechanisms developed from associating foreign groups with a higher threat of disease (Navarette and Fessler 2006). These mechanisms are the result of long-standing ancestral biases that associate out-group members with a greater threat of contamination by pathogens to which the group has not yet developed immunity (Faulkner, Schallar, Park, and Duncan 2006; Navarrete and Fessler 2006).

Perhaps it is no coincidence then that throughout history dehumanization efforts of targeted groups have revolved around equating the enemy with disgust-eliciting animals. Nazi Germany consistently characterized the Jewish population as "rats," and the Tutsis were often referred to as "cockroaches" leading up to the Rwandan genocide (Navarrete and Fessler 2006; Smith 2012). The association of these groups with disgust-eliciting animals was likely part of a broader propaganda effort to augment negativity biases and stimulate dehumanizing tendencies towards unwanted or targeted out-groups. More recently, dehumanization has been offered as a partial explanatory factor for the increased level of police violence against African Americans

(Ellawala 2016), citing the aforementioned studies on ape-like primes and the endorsement of violence against Black suspects (Goff, Eberhard, Williams, and Jackson 2008). The combination of historical propaganda efforts that utilize disgust-eliciting animals to portray the enemy and the present-day findings that cite primordial racial primes suggests a strong potential link between disgust and the perception of other groups. Thus, disgust is likely to play a significant role in the stigmatization and dehumanization processes directed towards these out-groups.

*Hypothesis 1:* *Respondents primed to feel disgust will exhibit higher levels of out-group negativity biases than those who are not primed to feel disgusted.*

*Disgust and In-Group Favoritism*

The emotion of disgust is not only associated with increased out-group negativity, but also a higher perception of positive in-group feelings and ethnocentric tendencies (Navarrete and Fessler 2006). In a study on pregnant women during their first trimester, the period in which both the mother and the baby are most susceptible to infection, women were found to demonstrate only a marginal increase in out-group negativity, but a significant increase in their ratings of in-group attractiveness (Navarrete, Fessler, and Eng 2007). Though this particular experiment did not deal directly with a temporal disgust prime, the results are nonetheless significant because they demonstrate a direct correlation between the threat of disease and intergroup attitudes (Navarrete, Fessler, and Eng 2007). Furthermore, the relevancy of in-group favoritism demonstrated by the pregnant women is significant due to the means in which the dependent variable was measured. In the study, respondents were asked to rate a foreign author and an American author who criticized America and its values, or who praised the United States and its citizens, respectively (Navarrete, Fessler, and Eng 2007). Test subjects in their first trimester of pregnancy rated the pro-American author and her views more favorably and the anti-American

author less favorably than their counterparts in different stages of pregnancy (Navarrete, Fessler, and Eng 2007). The added significance of these findings resides in the fact that the increased level of in-group attractiveness went beyond the immediate social vicinity of the subject, and extended to the respondents' views of the United States and its citizenry as a whole, supporting a broad-based conception of group loyalty (Druckman 1994).

Nationalistic and patriotic tendencies, therefore, which are rooted in a strong sense of group loyalty and the recognized benefits of membership, are likely to be bolstered as part of the increased sense of in-group attractiveness (Druckman 1994; Rosenblatt, 1964). While patriotism tends to be a bit more modest in nature and is characterized by feelings of attachment to one's country, nationalism carries more profound potential for intergroup conflict due to the antipathy towards foreigners that usually accompanies the positive in-group sentiment (Mummendey, Klink, and Brown 2001; Rosenblatt 1964). Nationalism is equated with a sense of in-group superiority and dominance, as well as an assumed out-group inferiority that psychologically resembles the changes in intergroup attitudes following disgust (Mummendey, Klink, and Brown 2001). Moreover, a common reaction among individuals who feel threatened or experience existential anxiety is to reaffirm and strengthen their preexisting social ties and sources of identity (Kinnvall 2004). Many individuals find the solution to these perceived threats in sources of group identity, particularly nationalism and religion, which provide a needed sense of security and stability (Kinnvall 2004). Therefore, the role of disgust as it pertains to an increased level of in-group attractiveness is likely to equate to higher levels of group loyalty, ethnocentrism, and nationalism among respondents.

*Hypothesis 2: Subjects primed with disgust will exhibit higher levels of in-group favoritism than those who are not primed to feel disgusted.*

*Disgust and Military Force*

It is clear that disgust has profound biological and psychological implications in changing behaviors, but the question still remains as to whether these implications could carry into broader policy preferences, specifically the willingness and likelihood of a nation to go to war.[2]

The elicitation of disgust has the potential to strengthen an individual's proclivity for conflict through both the in-group attractiveness and out-group negativity mechanisms. It has been found that during times of perceived threat, an individual is more likely to resort to intergroup conflict and violence as part of both in-group allegiance and out-group hostility (Brewer 1999). Moreover, while the inherent formation and bolstering of in-group loyalties do not carry a direct link to out-group hostility, the same factors that create these sentiments are likely to foster distrust and antagonism towards out-groups (Brewer 1999). Therefore, a heightened sense of in-group attractiveness is likely to encourage some form of out-group hostility, especially when there is a high level of perceived threat of disease or contamination.

The increase of in-group attraction at the national level is likely to create an affinity for intergroup conflict as well. Nationalism has been equated with higher levels of support for more aggressive state and foreign policy agendas among the public (Druckman 1994). Similarly, a study conducted by Tsukamoto, Enright, and Karasawa (2013) found that not only was a strong sense of national identity linked with increased interethnic biases, but also that these biases could be temporally primed in subjects that had previously displayed lower levels of nationalistic identities and more lenient attitudes towards foreign groups. In a study on nationalism

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[2] A tremendous amount of research has been dedicated towards analyzing the many causes and factors underlying a country's decision to engage in military conflict. For the purposes of this study, however, only the psychological tendencies and perceived biases associated with disgust will be addressed. While this will not, therefore, provide a comprehensive analysis or predictive model for military intervention, it has the capacity to shed light on the malleability of public opinion and raise questions about how these changes could influence a country's decision to engage militarily.

holistically, Evera (1994) cites perceptual factors—the views regarding both the in-group and the out-group—to be some of the most influential determinants of whether nationalism turns violent. The provocation of disgust, therefore, has the potential to sharpen in-group versus out-group biases and create perceptual contrasts between the nationalistic country and the perceived out-group. Referred to as asymmetrical nationalism, this unbalanced perception of one's own country at the expense of a foreign country is one of the most dangerous forms of nationalism that exists (Evera 1994). Similarly, though the disgust mechanism is defensive in nature, a study conducted by Bohm, Rusch, and Gurerk (2016) finds that the desire to protect the in-group from perceived threats frequently leads not only to retaliatory responses against the out-group but also to preemptory offensive actions. Together, these findings suggest that if the dichotomy of in-versus out-group separation is sharpened, these violent tendencies may play themselves out in more predictable and dangerous ways.

Defensive in-group responses are not the only psychological determinants that could lead to a higher threat of conflict. Negativity biases towards out-groups and the "othering effect" resulting from the stigmatization of these groups is also an important precursor to justifying violence. Humans have already been found to perceive out-groups as less human than their respective in-group (Ellawala 2016; Viki, Osgood, and Phillips 2013) and, as aforementioned, these biases are strengthened following a perceived threat of contamination. The subsequent dehumanization of foreign groups is part of a broad-based psychological process that allows for the moral justification of violence towards out-groups, even among individuals who are members of democratic nations (Jeong 2011). Dehumanization is a contending factor leading to moral disengagement, a state of mind in which individuals feel they are able to commit or condone acts of violence without moral culpability (Haney 1997; McAlister 2001). Moral disengagement

following dehumanization efforts has been found to be an important factor both in the past, in the justification of violence against African American slaves, as well as the present, in the willingness of a jury to rule in favor of the death penalty (Haney 1997). As a stand-alone factor, dehumanization has been linked to an increased willingness to torture out-group members, especially when there is a sense of potential threat (Viki, Osgood, and Phillips 2013). Together then, it appears that the bolstering of in-versus out-group biases resulting from disgust could carry broad implications for an individual's proclivity for military conflict. Within my hypotheses, both of these mediational variables act as important intervening components that work to propel the biological and psychological responses of disgust into more tangible and significant policy implications. In other words, if a disgust prime reaches a large enough population, it could have the potential to change public opinion and, subsequently, foreign policy regarding intergroup conflict and military engagement.

> *Hypothesis 3:* *Respondents primed to feel disgust will be more willing to engage*
> *in military conflict with other countries than those who are not primed to feel*
> *disgusted.*

**Data and Methodology**

In order to test the hypotheses surrounding the effects of disgust on out-group derogation, in-group favoritism, and therefore the public's viewpoints towards military conflict, I conducted a survey experiment featuring a randomized two-level disgust prime with an additional control condition. Following the randomization for disgust, all respondents, across all three conditions, were presented with a series of questions measuring in-group favoritism, out-group derogation, and proclivity for military conflict.

Though most experiments on the effects of disgust have been examined in a laboratory setting, I deployed a survey experiment to make better use of the time and resources available. A laboratory experiment would have made obtaining a large sample difficult, and the sanitized, controlled environment would have failed to mimic the way the public takes in information in the real world. The theoretical underpinning of the present study is the way in which the media and elites may shape public opinion through realistic mediums. Thus, even if a lab experiment yielded results for disgust primes shaping public opinion, the question would still remain as to whether these results were applicable to the broader implications regarding the role of the media in conveying the political elite's agendas to shape public opinion.

The survey experiment itself was designed using Qualtrics' survey software, which was chosen for its superior data tracking and randomization capabilities. Subsequently, Amazon.com's software platform known as Mechanical Turk (MTurk) was chosen to distribute the survey experiment because it offered the best medium to reach a large sample of the U.S. population at a disproportionately low cost. Although MTurk utilizes an opt-in crowd-sourcing program to obtain samples and therefore appears to be non-representative, the platform has been shown to have strong external validity. A study conducted out of the Massachusetts Institute of Technology found samples taken from MTurk participants to better represent the U.S. population as a whole than many other convenience samples drawn in experimental research in political science (Berinksy, Huber, and Lenz 2011). Similarly, the respondents from MTurk were found to respond to experimental manipulations in ways consistent to prior research at a much lesser cost than other more traditional methods (Berinksy, Huber, and Lenz 2011).

As an extra precautionary measure, I imposed additional prerequisites for subjects in order to improve data quality. Potential subjects were limited to those within the U.S. with a 95%

acceptance rate of human intelligence tasks (HITs) or higher, who also had completed a minimum of 1000 other HITs prior the survey experiment. Limiting the pool of subjects in this manner was not only recommended by Amazon as a way to improve validity, but also has been empirically found to boost the overall quality of the data (Peer, Vosgerau, and Acquisti 2013). Altogether, 900 responses were gathered from MTurk, and no subject was allowed to take the survey more than once.

The survey itself featured a single-factor between-subjects experiment with three levels for a total of three possible conditions. Upon deciding to participate in the survey, MTurk users were randomly assigned to one of the three conditions. The disgust priming element was broken down into two different conditions, one to prime respondents with direct visual stimuli, and the other to more covertly prime for disgust through subconscious cognitive recognition. The third condition was the control group, in which respondents were directed immediately to the questions.[3] Previous research on disgust, which was used to formulate the disgust primes of the present study, has found three separate domains of the emotion: pathogen disgust, sexual disgust, and moral disgust (Tybur, Lieberman, and Griskevicius 2009). Each of the domains of disgust evokes a fundamentally similar reaction neurologically, though they are elicited by different stimuli (Tybur, Lieberman, and Griskevicius 2009).

The survival benefits of pathogen disgust are clear; the emotion resulted from the natural selection advantages afforded to humans who could properly identify and avoid potential sources

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[3] The Rubin Causal Model establishes that random assignment of subjects to treatment and control groups establishes a counterfactual that allows for causal inferences to be made (Morton and Williams, 2012). Therefore, by randomly assigning test subjects to one of three conditions, of which the only experimental manipulation present is the type and presence of the disgust prime, one can effectively isolate the disgust prime as the reason for covariance among samples, and subsequently assert causality. It is in reliance upon this fundamental principle of experimentation that I am able to administer a between-subjects experimental design in the hopes of identifying causal mechanisms of change.

of disease (Tybur, Lieberman, and Griskevicius 2009). Based upon a similar premise is the concept of sexual disgust, which relates to the feeling of disgust elicited by sexual acts that are deemed deviant or genetically harmful to an individual's offspring (Tybur, Lieberman, and Griskevicius 2009). Once again, the social regulation offered by the ability to discern sexually (and genealogically) harmful behavior would have allowed for greater reproductive success and the perpetuation of these sexually judicious genes (Tybur, Lieberman, and Griskevicius 2009). Finally, moral disgust relates to the interpersonal interactions among individuals, and serves as a mechanism for social regulation (Tybur, Lieberman, and Griskevicius 2009). Moral disgust relates to activities that could be potentially harmful to the wellbeing of a social group, such as cheating, stealing, or lying (Tybur, Lieberman, and Griskevicius 2009). The ability to condemn and regulate these types of behaviors interpersonally would have minimized their potential consequences to the group's survival (Tybur, Lieberman, and Griskevicius 2009). With this understanding, the survey implemented disgust-priming tactics across all three domains, both in the form of verbal and visual stimuli.

The visual disgust prime that utilized a series of grotesque photos primed only for pathogen disgust, primarily due to both practical limitations of representing moral disgust, as well as ethical limitations for visually priming sexual disgust. Pathogen disgust also offers the most widespread and uniform effect on people regardless of potential variances like morals or gender (Olatunji et. al 2012; Tybur, Lieberman, and Griskevicius 2009). Respondents were shown a photo displaying a festering wound, as well as a photo showing a wound with maggots inside (See Appendix A). The utilization of these images in particular was chosen out of the broad possibilities of disgust-eliciting stimuli because of the profound effects on respondents in a similar experiment assessing what humans found the most disgusting (Curtis, Aunger, and Rabie

2004). Again, these tendencies stem from what evolutionary mechanisms have determined to be the most pressing threats of contamination and disease (Curtis, Aunger, and Rabie 2004).

Following the display of the disgusting photos, respondents were asked to indicate their level of agreement to a series of related questions regarding their willingness to treat the wound, their response to seeing the wound in public, and their reaction to the hypothetical instance that their restaurant server had that wound (See Appendix A). The responses were collected across a 7-point Likert scale. While the answers to these disgust-sensitivity measures are not wholly relevant to the results of the experiment, the question format was chosen as a way to foster engagement among respondents and minimize the possibility of noncompliance threatening the experiment's internal validity.

The second form of the disgust-priming element utilized a more covert and cognitive mechanism to prime respondents. The survey asked respondents to complete a Sentence-Scrambler Test, a methodology in which respondents are asked to rearrange a series of five jumbled-up words into a four-word grammatical sentence (Bargh, Chen, and Burrows 1996). The task of rearranging words in the Sentence-Scrambler Test distracts respondents from being overtly aware of what is being primed. The particular concepts being primed pertained to pathogen disgust: mold, pus, maggots, sneezing, rats, and fecal matter (e.g., moldy the is touched bread); moral disgust: cheating and forgery (e.g., were forged river papers the); and sexual disgust: pedophilia and incest (e.g., sister his golfing he married) (See Appendix B). The respondents formulated ten different sentences altogether, with six sentences priming pathogen disgust, two moral disgust, and two sexual disgust. No disgust sensitivity questions were included after the Sentence-Scrambler test because doing so would have undermined the crux of the prime, which focused on subconscious cognitive manipulation. The fear was that asking

respondents to rate how disgusted they felt following the test would tip them off to the purpose of the Sentence-Scrambler test and potentially invalidate any changes in political attitudes following the prime.

After the randomization component of the disgust prime, the experiment remained the same across all conditions. The intervening variables of out-group derogation and in-group favoritism were operationalized by posing a series of statements to which respondents were asked to rate their level of agreement on a 7-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." The statements measuring out-group derogation biases posed broad-based, generalized questions regarding intergroup opinions and the perception of foreigners (See Appendix B). The other intervening variable, in-group favoritism, was measured in a similar way, using questions pertaining to topics like U.S. patriotism and nationalism (See Appendix C).

Finally, respondents were directed to a series of statements representing the primary dependent variable – pro-military and pro-war sentiment. The series of questions were intended to measure interventionist attitudes as they pertain to foreign entities and foreign threats (See Appendix D). All three dependent variable measures were framed in both positive and negative directions to minimize acquiescence bias in respondents. The dependent variables were also framed as generically as possible in an attempt to minimize preconceived partisan attitudes from interfering with the results. The dependent variables are an amalgam of questions from other surveys measuring similar concepts, as well as a number of original questions that were created for the purposes of this study (Ferguson 1942; Dupuis and Cohn 2011).

Embedded into the set of questions for each dependent variable was an attention check question that was presented in a randomized order for each question matrix. These questions were disguised to look like the other statements, but asked respondents to instead indicate a

specific value within the Likert-scale to indicate that they were not simply clicking through the survey (See final question in Appendices C, D, E).

In an attempt to establish quantifiable statistical measures, the responses garnered from the survey experiment for each of the dependent variables were appropriately coded into levels of agreement ranging from 1 to 7, with 7 representing a higher sense of out-group negativity, in-group favoritism, and proclivity for military conflict. Next, dimension reduction factor analyses were conducted to ensure that all six questions across each dependent variable set were essentially measuring the same fundamental concept. For each of the three dependent variables, exactly one component was extracted (See Tables 1.1, 1.2, 1.3). I was therefore able to aggregate the values provided by the subjects across each of the questions into a set of three dependent variables that represented an average value for the respondent's sentiment for in-group favoritism, out-group derogation, and military conflict proclivity.

**Table 1.1: Component Matrix - Out-Group Derogation**

### Component Matrix[a]

| | Component 1 |
|---|---|
| I feel that foreigners living in the United States enrich our culture. | .862 |
| I could see myself being good friends with someone from a totally different culture. | .767 |
| I believe immigrants are not well-qualified to work in the United States. | .832 |
| I would never want to live in a country with a non-Western culture. | .659 |
| I believe the torture of an enemy of the U.S. is acceptable. | .649 |
| I feel that immigrants to the United States threaten American heritage. | .872 |

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

**Table 1.2: Component Matrix – In-Group Favoritism**

**Component Matrix[a]**

| | Component 1 |
|---|---|
| I feel that American culture is no better than any other world culture. | .710 |
| I believe other countries should be punished if they torture an American citizen. | .500 |
| I would defend the United States in any way I can. | .816 |
| I feel angry when Americans disrespect their own country. | .839 |
| I believe no special preference should be given to Americans over immigrants for jobs in this country. | .547 |
| I would never vote for a politician who finds fault with this country. | .722 |

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

**Table 1.3: Component Matrix – Military Conflict Proclivity**

**Component Matrix[a]**

| | Component 1 |
|---|---|
| I feel anxious when I think of the United States getting involved in another war. | .424 |
| If I were able, I would enlist in the military to help my country during times of war. | .709 |
| I believe that the loss of human life makes fighting wars unacceptable. | .763 |
| I feel that war is often times the only solution to solving a problem | .817 |
| I believe that the United States has the right to invade other countries if that country poses a threat to our national security. | .777 |
| I would support my country during times of war, even if I did not agree with the reason for fighting. | .781 |

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

A total of 900 responses were initially gathered, though a number of responses were eliminated prior to any dimension reductions or data analyses. Responses that failed any one of the attention checks throughout the survey were removed. Similarly, subjects who failed to adequately formulate sentences in the Sentence-Scrambler disgust prime were also removed. Eliminating these responses reduced the sample from 900 to 823.

Additionally, values were generated on the original data set (prior to the actual reversal of the variable values) that measured the average values of the questions coded in the negative

direction and compared these values to the questions that were measured in the positive direction via an absolute value. Responses with high absolute values indicated good validity in the sense that negatively coded questions received measurably different responses than the positively coded questions, which were all measuring the same concept. Thus, responses with an absolute value measuring zero across any of the three dependent variables were removed. This additional step was taken in an attempt to rule out responses where the subject had effectively identified and passed the attention checks, but had otherwise indicated the same value across all questions. The other potential type of response this methodology eliminated was one in which respondents did not have strong opinions one way or the other, demonstrated by their inconsistency across questions that measured the same fundamental concept. After eliminating those respondents, the data pool dwindled from 823 to 742. The sample of 742 respondents was then used for analyzing the data.

Overall, the sample appears to be representative. Roughly 52% of the sample was female, with the greatest percentage of respondents falling into the 31-40 age cohort. People over 70 were vastly underrepresented, something likely attributable to the technological requirements of the MTurk platform. The sample was also skewed in favor of more Democratic respondents, with 41.9% identifying as moderate to strong Democrats, 33.6% identifying as independents, and 24.6% of respondents identifying as moderate to strong Republicans (For additional information on the composition of the sample, see Appendix F).

Using a one-way ANOVA, I analyzed the effect of the disgust primes across all three of the dependent variables in reference to the control group. The results of these analyses are described below, along with a discussion in regard to the potential implications of the findings.

## Results

### Hypothesis 1: Disgust and Out-Group Derogation

Experimental data gathered in regard to the effect of both the photo and Sentence-Scrambler disgust primes on out-group derogation find there to be no effect (See Tables 2.1 and 2.2). The univariate analyses measured the effect of both the photo disgust prime and the sentence disgust prime each against the control, and found no statistically significant difference in the average treatment effect between the two groups. The sample sizes across the photo disgust prime, sentence disgust prime, and control groups were 258, 218, and 266, respectively. The mean for the out-group derogation variable across the entire sample was negatively skewed, with the average being only 2.715 on a 7-point scale. In other words, an ideal distribution across the possible range of values would have had an average of 4.0. The responses gathered indicate a lean towards less derogatory views towards foreign and outside groups (See Appendix F for descriptive statistics).

Despite the skew, priming respondents with the disgusting photos actually moved the average of the out-group derogation variable from 2.76 to 2.68, though a significance value of .489 indicates this variance is likely due to nothing more than mere chance (See Table 2.1 and Figure 2.1). The same can be said for the sentence disgust prime, which also saw a decrease in the out-group derogation mean, but had a significance value of .597 (See Table 2.2 and Figure 2.2).

Interestingly, however, there was a statistically significant conditional treatment effect for the photo disgust prime given gender of the subjects (See Table 2.3). The level of out-group derogation measured for males actually decreased from 2.97 to 2.65, while females' levels of out-group derogation rose from 2.60 to 2.71 (See Figure 2.3). These

results are surprising, as no other studies have found this type of conditionality. The explanation perhaps resides in the fact that women displayed higher degrees of disgust sensitivity than men after being shown the photos (See Appendix H – Table 6.1 and Figure 6.1). As a result, they were likely more impacted by the photo disgust prime than the male subjects, and thus more susceptible to changes in their responses. On the other hand, the decrease of out-group derogation displayed by the male subjects is more difficult to explain. Little to no change in their out-group derogation measures would have fit the narrative of lower disgust sensitivity. But, the men's out-group derogation measures showed an even greater change than the women's, decreasing by 0.32 points after the disgust prime (See Figure 2.3).[4]

**Table 2.1: Photo Disgust Prime on Out-Group Derogation**

**Tests of Between-Subjects Effects**

Dependent Variable:  outgroup_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | .729[a] | 1 | .729 | .479 | .489 |
| Intercept | 3881.743 | 1 | 3881.743 | 2552.830 | .000 |
| Photo Disgust Prime | .729 | 1 | .729 | .479 | .489 |
| Error | 793.735 | 522 | 1.521 | | |
| Total | 4678.736 | 524 | | | |
| Corrected Total | 794.464 | 523 | | | |

a. R Squared = .001 (Adjusted R Squared = -.001)

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[4] No other conditional treatment effects were observed across any of the dependent variables. The sentence disgust prime seemed to have similar effects on out-group derogation when controlling for gender (See Appendix G – Figure 7.1). However, the statistical significance of this finding fell just outside of the 95% confidence interval (See Appendix G – Table 7.1). Thus, it is hard to discern with complete certainty whether the conditional effect of gender on out-group derogation and disgust is an actual phenomenon.

**Figure 2.1:**



*Note: The out-group derogation measure is based on an average value generated from six individual questions composing the out-group index. Higher values indicate more derogatory views towards foreign groups.*

**Table 2.2: Sentence Disgust Prime on Out-Group Derogation**

**Tests of Between-Subjects Effects**

Dependent Variable:   outgroup_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | .450ᵃ | 1 | .450 | .280 | .597 |
| Intercept | 3568.369 | 1 | 3568.369 | 2222.809 | .000 |
| Sentence Disgust Prime | .450 | 1 | .450 | .280 | .597 |
| Error | 773.775 | 482 | 1.605 | | |
| Total | 4386.071 | 484 | | | |
| Corrected Total | 774.225 | 483 | | | |

a. R Squared = .001 (Adjusted R Squared = −.001)

**Figure 2.2:**
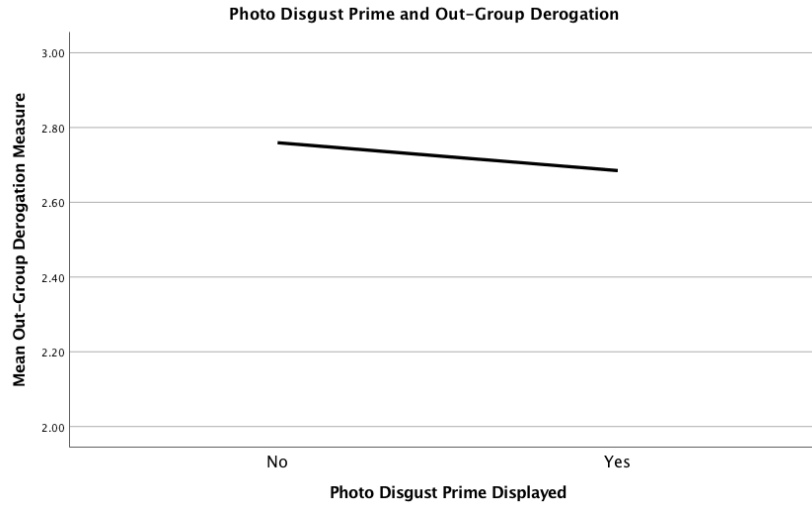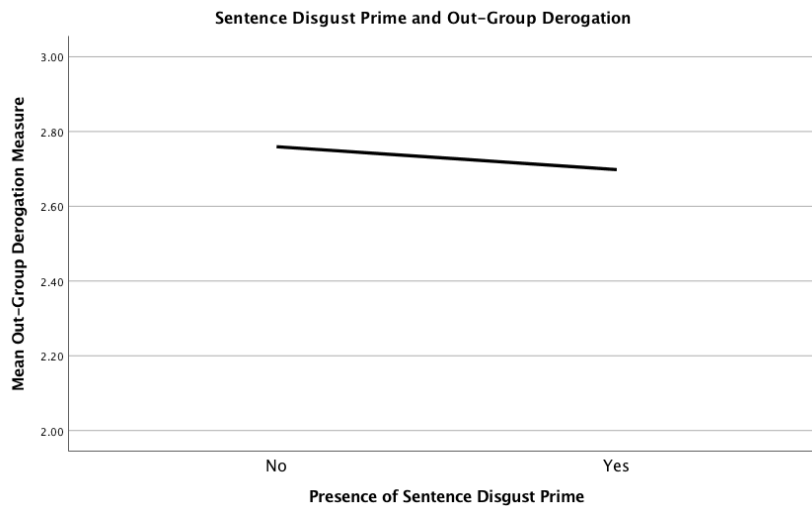
**Table 2.3: Conditional Impact of Photo Disgust Prime Given Gender on Out-Group Derogation**

**Tests of Between-Subjects Effects**

Dependent Variable:   outgroup_dv

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Intercept | Hypothesis | 3882.129 | 1 | 3882.129 | 1246.027 | .018 |
| | Error | 3.116 | 1 | 3.116[a] | | |
| Photo Disgust Prime | Hypothesis | 1.239 | 1 | 1.239 | .209 | .727 |
| | Error | 5.920 | 1 | 5.920[b] | | |
| Gender | Hypothesis | 3.116 | 1 | 3.116 | .526 | .600 |
| | Error | 5.920 | 1 | 5.920[b] | | |
| Photo Disgust Prime Controlling for Gender | Hypothesis | 5.920 | 1 | 5.920 | 3.924 | .048 |
| | Error | 784.626 | 520 | 1.509[c] | | |

a. MS(gender)

b. MS(photos_disgustprime * gender)

c. MS(Error)

**Figure 2.3:**



Photo Disgust Prime and Out-Group Derogation - Controlling for Gender
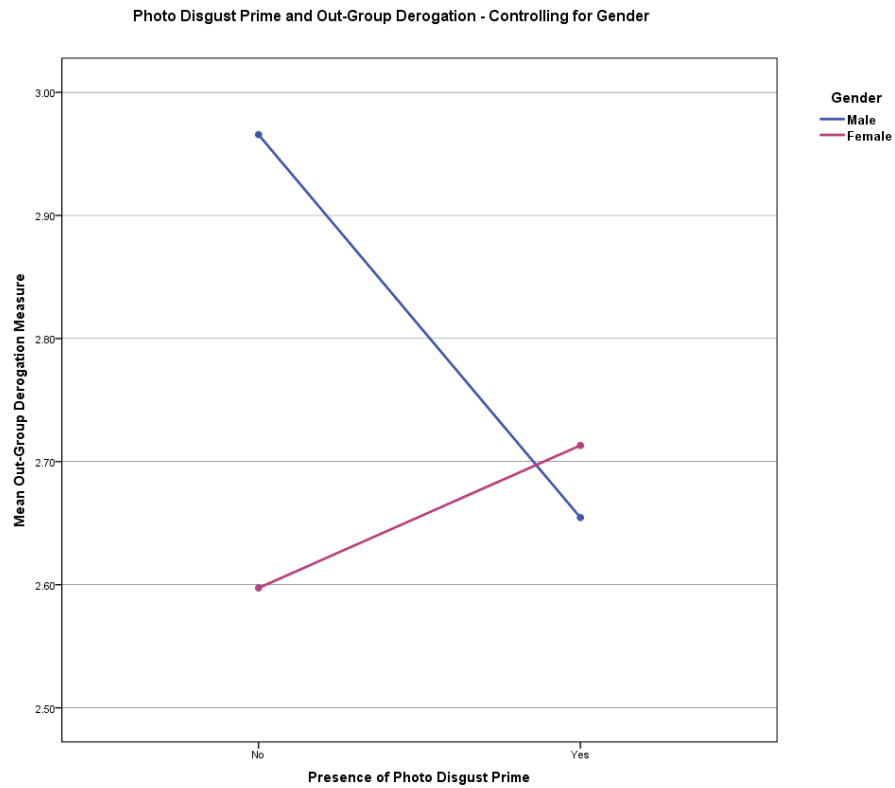
**Hypothesis 2: Disgust and In-Group Favoritism**

In regard to the in-group favoritism measure, both disgust primes again had no statistically significant effect. The in-group favoritism measure had a more normal distribution than the out-group derogation measure, with an average of 4.26 on a 7-point scale (See Appendix F for descriptive statistics). For the photo disgust prime, the mean in-group favoritism measure increased from 4.26 to 4.31, but a statistical significance measure of .634 again makes any causality likely spurious (See Figure 3.1 and Table 3.1). The sentence disgust prime saw the opposite effect, with a decrease in the mean from 4.26 to 4.20, but with a statistical significance of .602 again nothing can be discerned (See Figure 3.2 and Table 3.2).

**Table 3.1: Photo Disgust Prime on In-Group Favoritism**

### Tests of Between-Subjects Effects

Dependent Variable:  ingroup_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | .374[a] | 1 | .374 | .228 | .634 |
| Intercept | 9646.424 | 1 | 9646.424 | 5863.461 | .000 |
| Photo Disgust Prime | .374 | 1 | .374 | .228 | .634 |
| Error | 858.782 | 522 | 1.645 | | |
| Total | 10505.994 | 524 | | | |
| Corrected Total | 859.156 | 523 | | | |

a. R Squared = .000 (Adjusted R Squared = −.001)

**Figure 3.1:**



Photo Disgust Prime and In-Group Favoritism
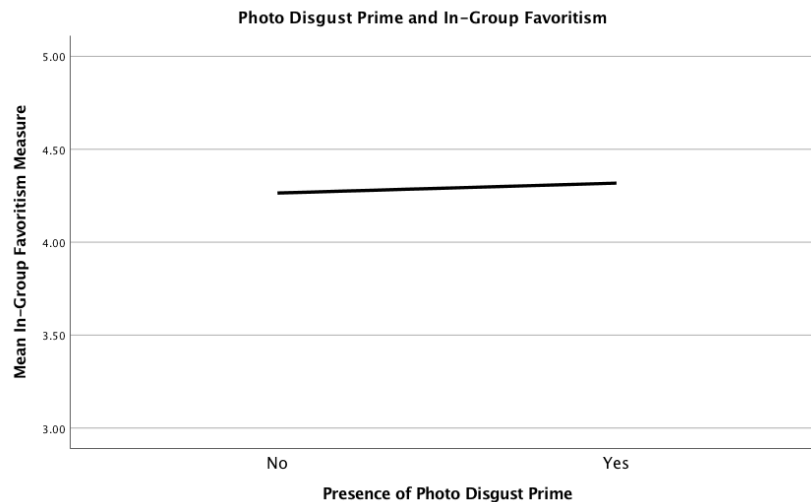
**Table 3.2: Sentence Disgust Prime on In-Group Favoritism**

**Tests of Between-Subjects Effects**

Dependent Variable: ingroup_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | .469[a] | 1 | .469 | .272 | .602 |
| Intercept | 8587.459 | 1 | 8587.459 | 4984.579 | .000 |
| Sentence Disgust Prime | .469 | 1 | .469 | .272 | .602 |
| Error | 830.392 | 482 | 1.723 | | |
| Total | 9516.339 | 484 | | | |
| Corrected Total | 830.861 | 483 | | | |

a. R Squared = .001 (Adjusted R Squared = -.002)

**Figure 3.2:**
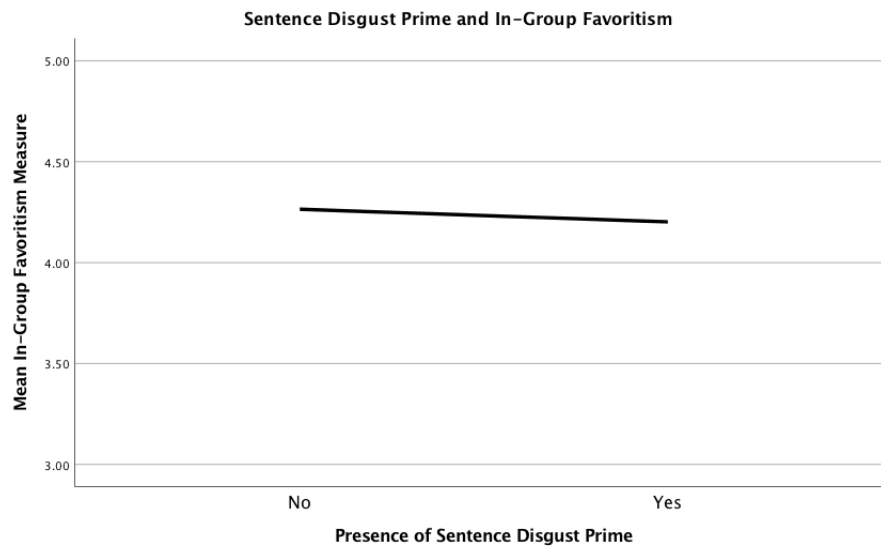


Note: The in-group favoritism measure is based on an average value generated from six individual questions composing the in-group index. Higher values indicate more favorable views towards the in-group (the U.S.).

**Hypothesis 3: Disgust and Proclivity for Military Conflict**

Likely in part due to the lack of results for both the in-group favoritism and out-group derogation measures, the disgust primes were found to have no effect on war attitudes and the proclivity for military conflict. The military proclivity variable demonstrated a relatively normal distribution, with an average of 3.62 on a 7-point scale (See Appendix F for descriptive statistics). The presence of the photo disgust prime

moved the mean in a slightly negative direction, from 3.63 to 3.60 (See Figure 4.1). The

sentence disgust prime, on the other hand, had a positive effect on the military proclivity

measure, increasing the mean from 3.63 to 3.70 (See Figure 4.2). Despite these variances,

statistical significance measures of .791 and .589 for the photo and sentence disgust

primes, respectively, makes asserting any sort of causality fallacious (See Tables 4.1 and

4.2).

**Table 4.1: Photo Disgust Prime on Military Conflict Proclivity**

**Tests of Between-Subjects Effects**

Dependent Variable:   military_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | .123[a] | 1 | .123 | .070 | .791 |
| Intercept | 6868.342 | 1 | 6868.342 | 3921.654 | .000 |
| Photo Disgust Prime | .123 | 1 | .123 | .070 | .791 |
| Error | 914.225 | 522 | 1.751 | | |
| Total | 7785.181 | 524 | | | |
| Corrected Total | 914.348 | 523 | | | |

a. R Squared = .000 (Adjusted R Squared = −.002)

**Figure 4.1:**
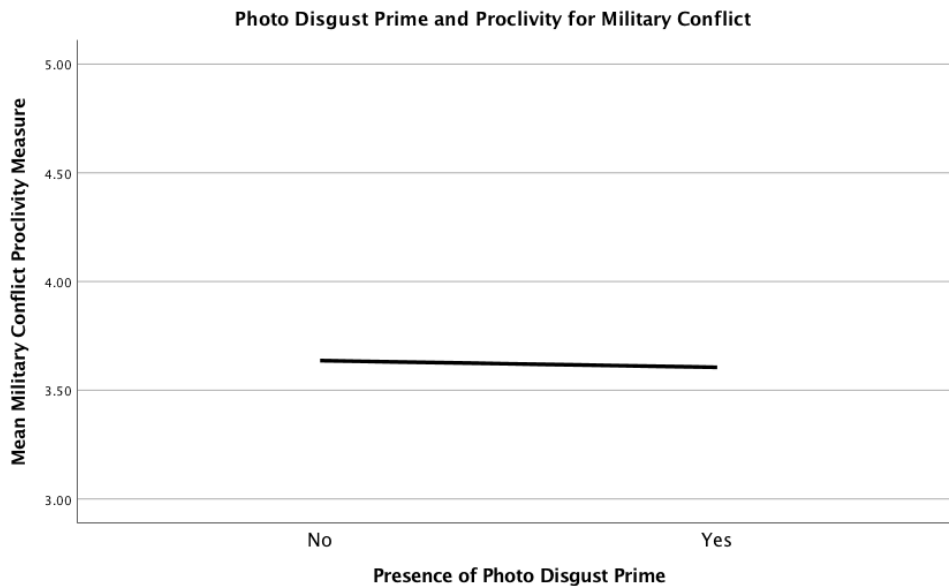


Note: The military conflict proclivity measure is based on an average value generated from six individual questions composing the military proclivity index. Higher values indicate more favorable views of war and military conflict.

**Table 4.2: Sentence Disgust Prime on Military Conflict Proclivity**

**Tests of Between-Subjects Effects**

Dependent Variable:   military_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | .529[a] | 1 | .529 | .292 | .589 |
| Intercept | 6452.833 | 1 | 6452.833 | 3557.984 | .000 |
| Sentence Disgust Prime | .529 | 1 | .529 | .292 | .589 |
| Error | 874.165 | 482 | 1.814 | | |
| Total | 7379.923 | 484 | | | |
| Corrected Total | 874.694 | 483 | | | |

a. R Squared = .001 (Adjusted R Squared = -.001)

**Figure 4.2:**



Sentence Disgust Prime and Proclivity for Military Conflict
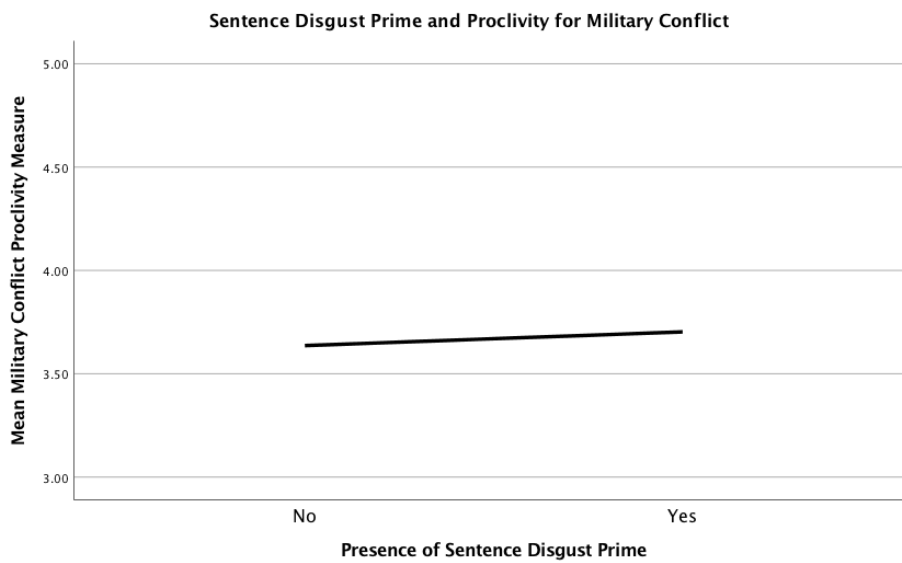
**The Effect of Party Identification**

Despite the null results for the disgust prime conditions, a major story emerged; in-group favoritism, out-group derogation, and proclivity for military conflict were all significantly influenced by party identification (See Tables 5.1, 5.2, 5.3).[5] The average out-group derogation measure for Republicans was 2.25 points higher than it was for Democrats (See Figure 5.1), the average in-group favoritism measure was 2.3 points higher among Republicans than Democrats (See Figure 5.2), and the proclivity for military conflict score was 2.45 points higher for Republicans than for Democrats (See Figure 5.3).

It should be noted that these variances are quite substantial. The differences across all three measures were greater than 2 points on a 7-point Likert scale. Moreover, responses for strong Republicans and strong Democrats fell on opposite sides of the agree/disagree spectrum for all three measures – especially in-group favoritism and military conflict proclivity. In other words, the differing opinions were not just a matter of degree, but rather a difference between agreeing and disagreeing with the statements altogether. These findings corroborate the heavy influence of party identification across a broad range of political concepts.

Contrary to previous research, party identification was not found to be statistically significant when measuring disgust sensitivity, despite previous findings claiming such a

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[5] For a number of the dependent variables, other demographic characteristics were found to be statistically significant as well (For a full description of these relationships and their respective significance levels, see Appendix H). Male respondents showed a higher proclivity for military conflict than females, choosing an average of 0.22 points higher across the index variable. Different age cohorts also indicated variances in their attitudes towards war and military conflict. The most war averse was the 25-30 age group, though people 40 and under scored an average of 0.54 points lower in their ratings of military conflict than people over 40. Age was also found to be statistically significant in regard to in-group favoritism, where people aged 51-60 ranked the highest, a full 1.16 points over 18-24 year olds who showed the lowest levels of in-group favoritism.

relationship (See Table 5.4). This disjunction is explored in greater depth in the

conclusion.

**Table 5.1: Party Identification and Out-Group Derogation**

**Tests of Between-Subjects Effects**

Dependent Variable:   outgroup_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 311.958[a] | 4 | 77.989 | 67.763 | .000 |
| Intercept | 4635.272 | 1 | 4635.272 | 4027.469 | .000 |
| Party Identification | 311.958 | 4 | 77.989 | 67.763 | .000 |
| Error | 848.224 | 737 | 1.151 | | |
| Total | 6631.314 | 742 | | | |
| Corrected Total | 1160.182 | 741 | | | |

a. R Squared = .269 (Adjusted R Squared = .265)

**Figure 5.1:**



Party Identification and Out-Group Derogation
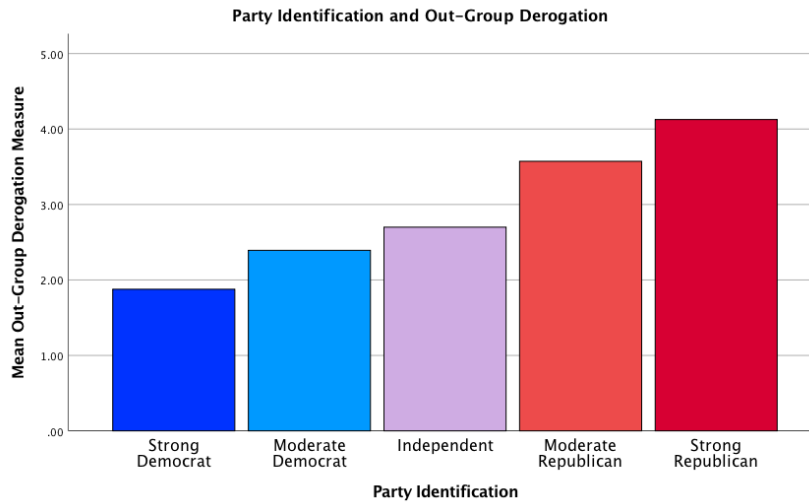
**Table 5.2: Party Identification and In-Group Favoritism**

**Tests of Between-Subjects Effects**

Dependent Variable:   ingroup_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 340.050[a] | 4 | 85.012 | 72.073 | .000 |
| Intercept | 10919.366 | 1 | 10919.366 | 9257.354 | .000 |
| Party Identification | 340.050 | 4 | 85.012 | 72.073 | .000 |
| Error | 869.317 | 737 | 1.180 | | |
| Total | 14703.784 | 742 | | | |
| Corrected Total | 1209.366 | 741 | | | |

a. R Squared = .281 (Adjusted R Squared = .277)

**Figure 5.2:**



Party Identification and In-Group Favoritism
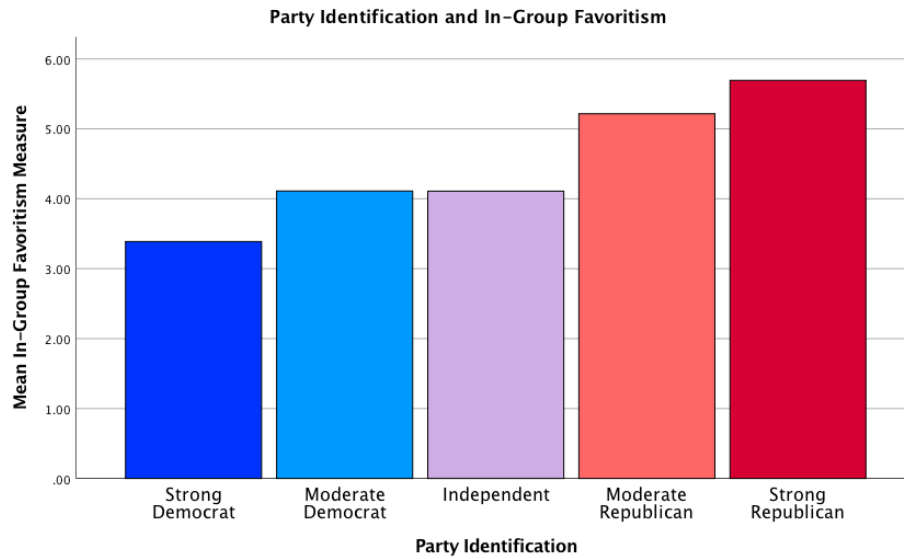
**Table 5.3: Party Identification and Military Conflict Proclivity**

### Tests of Between-Subjects Effects

Dependent Variable:   military_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 353.882[a] | 4 | 88.471 | 70.564 | .000 |
| Intercept | 8236.021 | 1 | 8236.021 | 6569.052 | .000 |
| Party Identification | 353.882 | 4 | 88.471 | 70.564 | .000 |
| Error | 924.022 | 737 | 1.254 | | |
| Total | 11136.426 | 742 | | | |
| Corrected Total | 1277.904 | 741 | | | |

a. R Squared = .277 (Adjusted R Squared = .273)

**Figure 5.3:**



Party Identification and Proclivity for Military Conflict
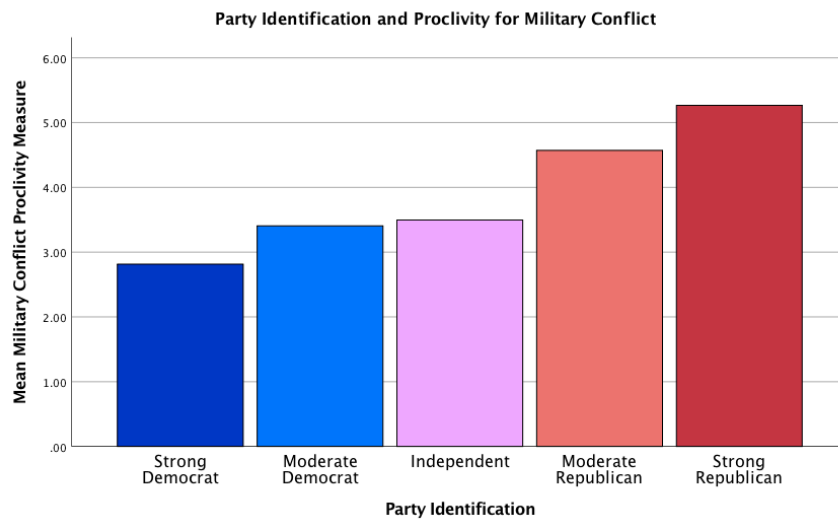
**Table 5.4: Party Identification and Disgust Sensitivity**

### Tests of Between-Subjects Effects

Dependent Variable:  disgust_sensitivity

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 4.932[a] | 4 | 1.233 | 1.375 | .243 |
| Intercept | 8004.663 | 1 | 8004.663 | 8926.432 | .000 |
| Party Identification | 4.932 | 4 | 1.233 | 1.375 | .243 |
| Error | 226.875 | 253 | .897 | | |
| Total | 10325.563 | 258 | | | |
| Corrected Total | 231.806 | 257 | | | |

a. R Squared = .021 (Adjusted R Squared = .006)

## Conclusion

Based on the results gathered from 742 respondents across three conditions, I fail to reject the null hypotheses, therefore calling into question the effects of disgust as it pertains to out-group derogation, in-group favoritism, and the proclivity for military conflict. Despite the solid foundation of research upon which the present study was based, the findings indicate a need for more research to be conducted on the topic of disgust and political attitudes. The lack of replicability of previous findings likely indicates spurious or weak results of previous studies, as the chance that methodological oversights within the present study leading to type II error at this point seems slim.

The present study was in large part based upon the foundational premises provided by other studies that not only found a correlation between disgust sensitivity and political conservatism (Inbar, Pizarro, Iyer, and Haidt 2012; Inbar, Pizarro, and Bloom 2009), but also asserted that disgust could be temporally primed to affect political attitudes (Helzer and Pizarro 2011). However, a body of research exists that questions the

validity of these findings. For example, a study by Tybur et al. (2010) found no relationship between political conservatism and disgust sensitivity, potentially undermining the connections between these two phenomena present in other research. The explanation, Tybur et al. (2010) believe, is that the Disgust Scale used in these studies relied upon an overly broad measure of disgust that occasionally diverged from pure pathogenic or sexual disgust (moral disgust was not even included) to measure other constructs like fear or anxiety.

Another possible explanation is that underlying the assertions that disgust makes people more politically conservative is an over-reliance upon judgments of sexual morality as an indicator of political conservatism holistically. Tybur et al. (2010) corroborate this assertion in their study, finding that only sexual disgust was related to political conservatism, though not very strongly. As an example of this over-reliance, Helzer and Pizarro (2011) claimed that reminders of cleanliness to prevent disease made respondents more conservative. However, they also acknowledged that these moral judgments were only limited to the domain of sexual morality, and did not apply to other facets of political ideologies (Helzer and Pizarro 2011). They were also unsure whether these manipulations would affect issue-specific attitudes towards policy (Helzer and Pizarro 2011). Finally, the sample size of the study conducted by Helzer and Pizarro in 2011 was composed of only 61 undergraduate students, thereby raising concerns about the conclusions drawn from such a small and homogeneous sample.

The findings of the present study would in part support both facets of Tybur et al.'s suspicion towards previous studies. The disgust sensitivity measure used in this study dealt with only pathogen disgust, thereby eliminating altogether the influence of

sexual disgust and morality within the measurement and isolating the pathogenic domain. Upon doing so, it was found that party identification had no statistically significant relationship with pathogenic disgust sensitivity. These findings seem to strengthen the possibility that previous studies asserting a correlation between disgust sensitivity holistically and political conservatism were in fact conflating sexual morality judgments (e.g. homosexuality and promiscuity) with overall disgust sensitivity.

On a different note, there is always the possibility that methodological flaws in the present study have led to a false conclusion of null results when a relationship does indeed exist. There are two potential problems that could be threatening the quality of the data and the validity of the study. The first would be the question of whether Amazon Mechanical Turk subjects are actually representative of the U.S. population as a whole. Demographically speaking, MTurk subjects are generally found to be more female, with lower incomes than the U.S. population (Paolacci, Chandler, and Ipeirotis 2010). However, a large body of research agrees that Amazon Mechanical Turk does provide high-quality and representative data, especially when compared to traditional methods that utilize undergraduate students as the sole source of sampling (Paolacci, Chandler, and Ipeirotis 2010; Buhremester, Kwang and Gosling 2011). From this perspective, the quality of data obtained from using the Amazon Mechanical Turk survey platform might be higher than the studies that found correlations between disgust sensitivity and political attitudes by using undergraduate sample pools.

The other potential problem with the data acquired through MTurk would be noncompliance in answering the questions. Given the relatively low rate of compensation, MTurk workers may feel inclined to simply click through the surveys as

fast as possible in order to boost the rate at which they can complete paid tasks. However, the attention checks present in the study likely removed any responses in which subjects exhibited such behavior, as these checks have been found to be an effective filter in previous studies (Paolacci, Chandler, and Ipeirotis 2010). As an extra measure, the elimination of subjects with an absolute value measure of zero in the variable comparing responses of negatively versus positively coded questions was likely sufficient in ruling out any other noncompliance issues. Thus, it is hard to justify that MTurk representational or noncompliance issues are to blame for the lack of results in the study.

The results do warrant a discussion about the role of identity politics in the modern political age. Specifically, the results seem to indicate a staunch adherence to the policies put forth by each political party. Strong Democrats tend to hold fairly consistent views, as do strong Republicans, with a gradual and incremental pattern evident as you move across the political identification spectrum. From this perspective, it is possible that the American electorate is becoming less susceptible to outside influences on their political opinions. Perhaps certain policy stances have been solidified as the public has become more partisan (Abramowitz and Webster 2016), where people do not consider concepts such as out-group derogation, in-group favoritism, and proclivity for military conflict as separate constructs, but rather as subcategories that are dictated first and foremost by their political identification.

There is somewhat of a paradox, however, when it comes to party identification and the behavior of the electorate. Studies have shown that party loyalty and straight-ticket voting have increased in recent years, though the degree to which people identify with their particular party has decreased (Abramowitz and Webster 2016). The data

would certainly corroborate this concept, with the greatest percentage (33%) of respondents failing to identify with any particular political party and instead choosing to classify themselves as independents. At the same time, most independents lean towards a particular party (Abramowitz and Webster 2016), and the increased loyalty in partisan behavior, regardless of declared identification, is indisputable (Abramowitz and Webster 2016). Abramowitz and Webster (2016) attribute these discrepancies to a concept known as negative partisanship, where the public formulates political stances that are based more out of opposition towards the rival party than favorability towards their own. The merits of this particular theory aside, the role of partisanship on today's political climate must be acknowledged and explored.

Thus, it appears that two possibilities emerge to explain the lack of results of the present study. The first calls into question the findings of previous studies where disgust was declared to have notable effects on political attitudes. As aforementioned, certain methodological oversights in measuring disgust and selecting a sample might help to explain why some studies have found statistically significant results, while others have failed to replicate these findings. Additional research is required to determine how disgust influences political attitudes holistically and policy preferences individually, as it seems that current research is very limited in understanding how disgust affects opinions outside of the realm of sexual disgust and the "political" judgments pertaining to sexual morality.

The second potential explanation does not disregard altogether the previous findings that cite a relationship between disgust and political attitudes, but rather acknowledges a changing political environment as a potential cause behind the null

results. It is possible that, as the partisan divide grows and people feel more strongly for or against a certain party, what were once malleable political opinions have hardened. If this is the case, certain extraneous factors that might have influenced political attitudes in the past are no longer potent enough to shift political attitudes in any significant direction. The extent to which this is the case, however, may prove difficult to test empirically. Further research is undoubtedly required to ascertain whether disgust is ever a politically relevant influencer, while acknowledging the context of partisan politics.

As for the effect of disgust on political opinions, the relationship has proven tenuous at best. Thus, for democracy fundamentalists, it appears that the American political system remains intact another day. However, the null results found in regard to disgust manipulations do not eliminate altogether the notion of media and elite priming to influence public opinion. Instead, it shifts the focus of the conversation to explore how other concepts might be utilized to sway the public. Specifically, the findings of the present study leave serious questions regarding the role of party identification and negative partisanship on political attitudes. Further research might explore priming for party loyalty or negative partisanship as a tactic to pull extraneous political opinions closer to established party platforms. Thus, the concept of shaping political attitudes in the partisan age is still an area ripe for further investigation.

**Appendix A**





After carefully observing the image above, please rate how strongly you agree or disagree with these statements.

| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I would be willing to treat the above wound without gloves. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| It would bother me to see the above wound uncovered in a public setting. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| If I found out my restaurant server had the above wound I would refuse to eat my meal. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Appendix B**

Please form a grammatical sentence using four of the five words in each of the sentences below.

1. moldy the is touched bread

2. popped he questioning the zit

3. copied she machine the test

4. winner dog the maggots ate

5. sister his golfing he married

6. us traveled sneeze the far

7. had rat crawled babies the

8. a is pedophile he detain

9. stepped manner poop she on

10. were forged river papers the

**Appendix C**

## The following are various statements about immigrants.  Please indicate how strongly you agree or disagree with them.

|  | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I feel that foreigners living in the United States enrich our culture. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I could see myself being good friends with someone from a totally different culture. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I believe immigrants are not well-qualified to work in the United States. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I would never want to live in a country with a non-Western culture. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I believe the torture of an enemy of the U.S. is acceptable. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I feel that immigrants to the Unites States threaten American heritage. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I am not interested in immigrants for this question, please click disagree. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Appendix D**

## Now we are interested in different types of patriotism. Please read the following statements and indicate how strongly you agree or disagree.

|  | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I feel that American culture is no better than any other world culture. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I believe other countries should be punished if they torture an American citizen. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I would defend the United States in any way I can. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I feel angry when Americans disrespect their own country. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I believe no special preference should be given to Americans over immigrants for jobs in this country. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I would never vote for a politician who finds fault with this country. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I feel confident that I am paying attention. If so, please click agree. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Appendix E**

## You're almost done. Below are several questions about military conflict. Please read the following statements and indicate how strongly you agree or disagree.

| | Strongly Disagree | Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| I feel anxious when I think of the United States getting involved in another war. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| If I were able, I would enlist in the military to help my country during times of war. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I believe that the loss of human life makes fighting wars unacceptable. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I feel that war is often times the only solution to solving a problem. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I believe that the United States has the right to invade other countries if that country poses a threat to our national security. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I would support my country during times of war, even if I did not agree with the reason for fighting. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| I feel that the United States is not related to this question. Please click strongly agree. | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

**Appendix F**

**Descriptive Statistics:**

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Out-Group Derogation Variable | 742 | 1.00 | 7.00 | 2.7154 | 1.25128 |
| Valid N (listwise) | 742 | | | | |

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| In-Group Favoritism Variable | 742 | 1.00 | 7.00 | 4.2646 | 1.27753 |
| Valid N (listwise) | 742 | | | | |

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Military Proclivity Variable | 742 | 1.00 | 7.00 | 3.6451 | 1.31323 |
| Valid N (listwise) | 742 | | | | |

**Demographics:**

**Party Identification**

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|
| Strong Democrat | 149 | 20.1 | 20.1 | 20.1 |
| Moderate Democrat | 162 | 21.8 | 21.8 | 41.9 |
| Independent | 249 | 33.6 | 33.6 | 75.5 |
| Moderate Republican | 137 | 18.5 | 18.5 | 93.9 |
| Republican | 45 | 6.1 | 6.1 | 100.0 |
| Total | 742 | 100.0 | 100.0 | |

**Gender**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Male | 355 | 47.8 | 47.9 | 47.9 |
| | Female | 386 | 52.0 | 52.1 | 100.0 |
| | Total | 741 | 99.9 | 100.0 | |
| Missing | System | 1 | .1 | | |
| Total | | 742 | 100.0 | | |

**Age**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 18-24 | 47 | 6.3 | 6.3 | 6.3 |
| | 25-30 | 145 | 19.5 | 19.6 | 25.9 |
| | 31-40 | 259 | 34.9 | 35.0 | 60.9 |
| | 41-50 | 147 | 19.8 | 19.8 | 80.7 |
| | 51-60 | 90 | 12.1 | 12.1 | 92.8 |
| | 61-70 | 43 | 5.8 | 5.8 | 98.7 |
| | Over 70 | 10 | 1.3 | 1.3 | 100.0 |
| | Total | 741 | 99.9 | 100.0 | |
| Missing | System | 1 | .1 | | |
| Total | | 742 | 100.0 | | |

**Appendix G**

**Table 7.1: Conditional Impact of Sentence Disgust Prime Given Gender on Out-Group Derogation**

**Tests of Between-Subjects Effects**

Dependent Variable: outgroup_dv

| Source | | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Intercept | Hypothesis | 3570.523 | 1 | 3570.523 | 1361.167 | .017 |
| | Error | 2.623 | 1 | 2.623[a] | | |
| Sentence Disgust Prime | Hypothesis | .693 | 1 | .693 | .121 | .787 |
| | Error | 5.717 | 1 | 5.717[b] | | |
| Gender | Hypothesis | 2.623 | 1 | 2.623 | .459 | .621 |
| | Error | 5.717 | 1 | 5.717[b] | | |
| Sentence Disgust Prime Controlling for Gender | Hypothesis | 5.717 | 1 | 5.717 | 3.588 | .059 |
| | Error | 763.173 | 479 | 1.593[c] | | |

a. MS(gender)

b. MS(sentence_disgustprime * gender)

c. MS(Error)

**Figure 7.1:**



Sentence Disgust Prime and Out-Group Derogation - Controlling for Gender
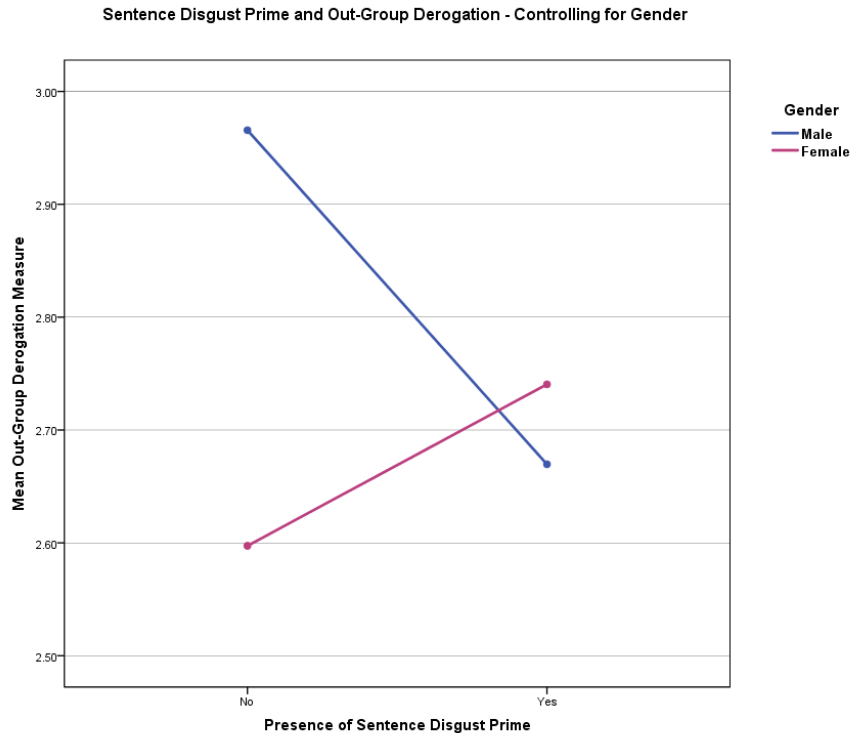
**Appendix H**

**Statistically Significant Demographic Variances**

**Table 6.1: Disgust Sensitivity and Gender**

### Tests of Between-Subjects Effects

Dependent Variable:   disgust_sensitivity

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 5.965[a] | 1 | 5.965 | 6.762 | .010 |
| Intercept | 10068.847 | 1 | 10068.847 | 11413.433 | .000 |
| Gender | 5.965 | 1 | 5.965 | 6.762 | .010 |
| Error | 225.841 | 256 | .882 | | |
| Total | 10325.563 | 258 | | | |
| Corrected Total | 231.806 | 257 | | | |

a. R Squared = .026 (Adjusted R Squared = .022)

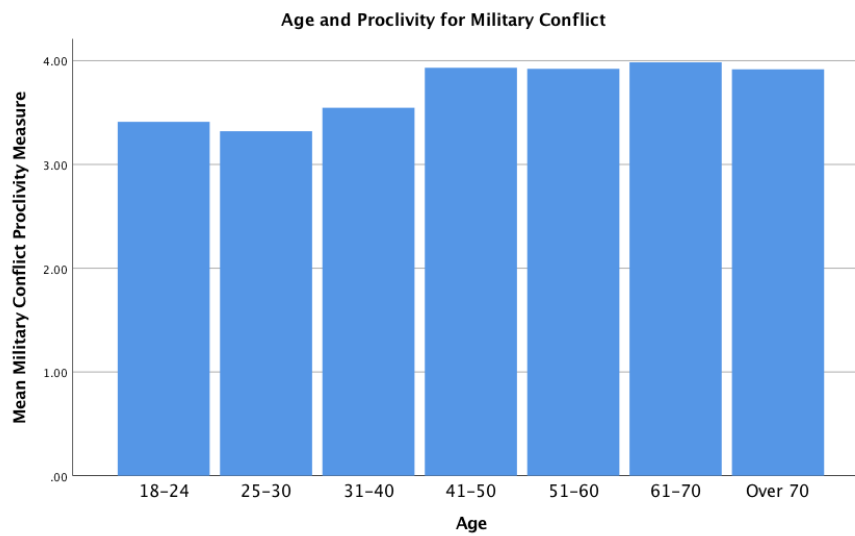**Figure 6.1:**



Disgust Sensitivity and Gender
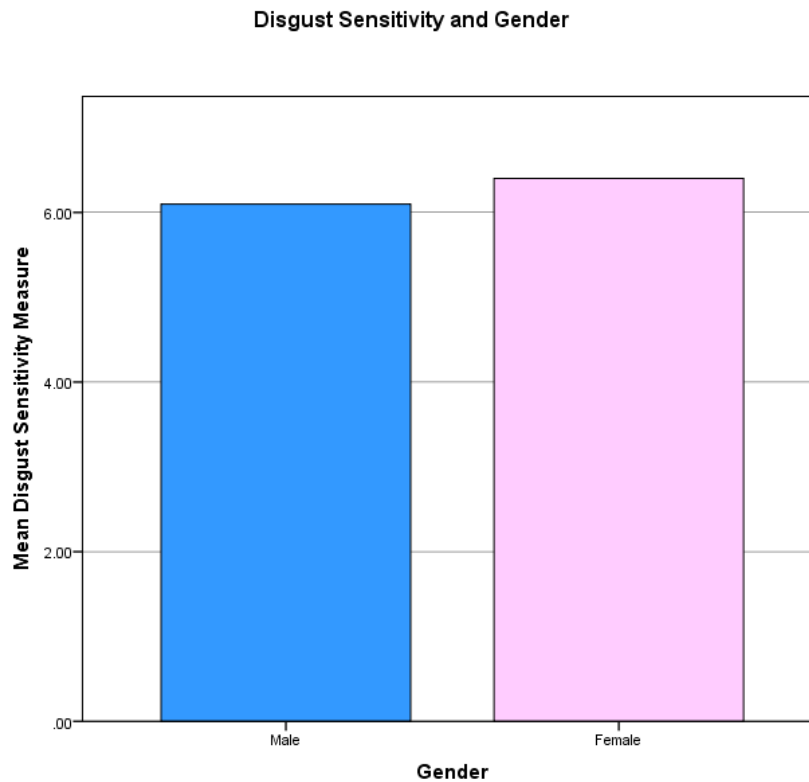
**Table 6.2: Age and Military Conflict Proclivity**

**Tests of Between-Subjects Effects**

Dependent Variable: military_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 45.074[a] | 6 | 7.512 | 4.475 | .000 |
| Intercept | 3912.803 | 1 | 3912.803 | 2330.855 | .000 |
| Age | 45.074 | 6 | 7.512 | 4.475 | .000 |
| Error | 1232.165 | 734 | 1.679 | | |
| Total | 11128.417 | 741 | | | |
| Corrected Total | 1277.239 | 740 | | | |

a. R Squared = .035 (Adjusted R Squared = .027)

**Figure 6.2:**



Age and Proclivity for Military Conflict

**Table 6.3: Gender and Military Conflict Proclivity**

**Tests of Between-Subjects Effects**

Dependent Variable: military_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 9.223[a] | 1 | 9.223 | 5.392 | .021 |
| Intercept | 9868.848 | 1 | 9868.848 | 5769.504 | .000 |
| Gender | 9.223 | 1 | 9.223 | 5.392 | .021 |
| Error | 1264.074 | 739 | 1.711 | | |
| Total | 11134.176 | 741 | | | |
| Corrected Total | 1273.297 | 740 | | | |

a. R Squared = .007 (Adjusted R Squared = .006)

**Figure 6.3:**



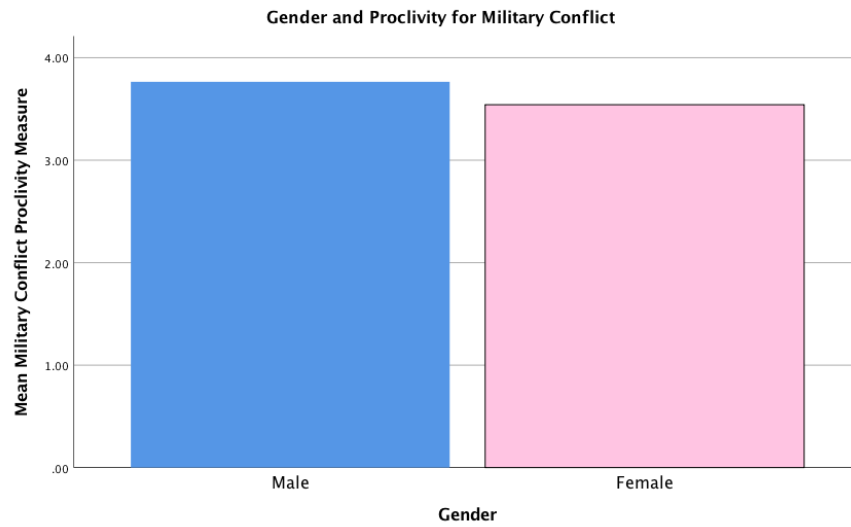Gender and Proclivity for Military Conflict

**Table 6.4: Age and In-Group Favoritism**

### Tests of Between-Subjects Effects

Dependent Variable:   ingroup_dv

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Corrected Model | 76.202[a] | 6 | 12.700 | 8.231 | .000 |
| Intercept | 5310.256 | 1 | 5310.256 | 3441.461 | .000 |
| Age | 76.202 | 6 | 12.700 | 8.231 | .000 |
| Error | 1132.579 | 734 | 1.543 | | |
| Total | 14691.534 | 741 | | | |
| Corrected Total | 1208.781 | 740 | | | |

a. R Squared = .063 (Adjusted R Squared = .055)

**Figure 6.4:**



Age and In-Group Favoritism
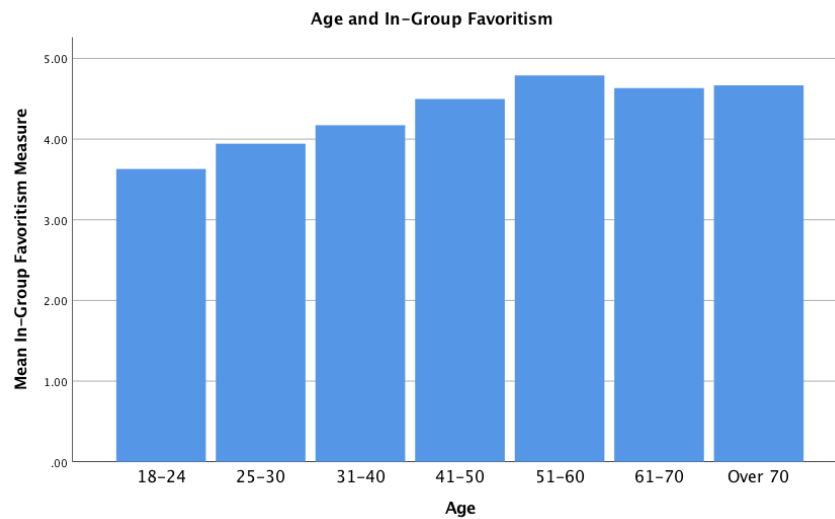
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