

## **Methodology**

### **Procedure**

The stimuli used in this study consisted of six facial displays (3 smiling and 3 neutral) by President Donald Trump during his speech at the October 20, 2016 Al Smith Memorial Foundation Charity Dinner (see Table 1). Short video clips were embedded within the survey of the six facial displays. This event, covered by various media news sources, including C-SPAN, is an annual occurrence where politicians have the opportunity as guest speakers to entertain Annual Dinner audiences with humor and political commentary, using humorous remarks and tasteful jabs at critics and comrades (C-SPAN, 2016). The event also provides the opportunity to observe the Republican front-runner for the Presidential nomination, Donald Trump's, nonverbal behavior from a one-camera perspective, allowing unimpeded and uninterrupted coding during the laughter and applause immediately following his comments. This event was specifically chosen for the replication study due to the key similarities of event atmosphere and humorous behavior encouraged by the audiences of the Annual White House Correspondents Dinner in 2010 analyzed in the original study. As researchers, it was important to find facial expressions made by Donald Trump that were similar to President Barack Obama's used within the original study. Therefore, as researchers there was a need to identify an event which encouraged humor and happiness-reassurance while in a similar light hearted atmosphere, so the nonverbal behaviors of the stimuli, Donald Trump, could be analyzed. By using this method, the researchers were able to find similar facial expressions of happiness-reassurance by President Trump compared to President Obama which were used in the previous study. These displays were labeled the same as the previous study and as follows:

Felt Smile, Controlled Smile, Amusement Smile, Neutral 1, Neutral 2, and Neutral 3 (see Table 1).

## **Participants**

The individuals that completed the study represented a broad range of demographic characteristics, allowing the ability to assess the effect of variables such as sex, age, political affiliation and attitudes towards President Trump. The participants of this study ( $N=294$ ) were individuals 18 and older who volunteered ( $n=94$ ) or were paid through MTurk ( $n=200$ ) to complete an online survey via Qualtrics. Participants were recruited by means of an anonymous link through the use of network sampling and Amazon's Mechanical Turk (MTurk). To ensure the participants' privacy, the Qualtrics survey was anonymous and did not record IP addresses of participants and no personal identifiers were collected. Participants that completed the survey via MTurk were compensated \$0.05. The approximate time to complete the survey was 5-10 minutes.



Of the ~300 participants ( $N=294$ ), 94 (32.4%) identified as male, 190 (65.5%) were female and 4 (1.4%) were transgender. The remaining participants preferred not to say or did not respond to the question of gender. Participants' age was reported into groups. 52 (17.9 %) participants were in the 18-21 age group, 102 (35.2%) in the 22-29, 52 (19%) in the 30-37 and 81 (27.9%) fell in the 38+ category. 137 (47.6%) participants were single, 135 (46.9%) were married/partnered and the remaining participants were widowed or divorced. 69 (23.4%) identified themselves as republican, 116 (40%) identified as democrat, 76 (26.2%) identified as independent, and 23 (7.9%) had no preference for political affiliation. When asked "Do you





support President Donald Trump?,” 98 (33.9%) answered “YES”, 142 (49.1%) answered “NO,” 49 (17%) answered “Neither, I have no preference.”

## Measures

Measures of President Donald Trump’s emotion, as interpreted by participants, were measured on the same scale as the initial study that was to be replicated. Responses were assessed through six 0–100 point slider bars arrayed below the video stimuli. End points for the six emotion terms (happy, playful, angry, disgusted, fearful, and sad) were denoted as “Not at all” and “Extremely” with a small tick mark indicating the center point of the scale. The initial usage of the scale in the Stewart and Ford Dowe (2013) experiment resulted in a Cronbach’s Alpha reliability of .585 to .820, suggesting the scale were acceptable to use.

Table 1. **President Donald Trump’s Facial Characterizations**

Display Type	Humorous Comment	Facial Expression Photo
Felt Smile	“Last night they said that was the most vicious debate in the history of politics, presidential debate, the most vicious. And I don’t know, are we supposed to be proud of that or are we supposed to be unhappy?”	
Controlled Smile	“She accidentally bumped into me and she very civilly said, ‘Pardon me.’ And I very politely said, ‘Let me talk to you about that after I get into office.’”	

Amusement Smile	“I have no doubt Hillary is going to laugh quite a bit tonight. Sometimes even at an appropriate moment.”	
Neutral 1	“Hi Chuck... He used to love me when I was a democrat.”	
Neutral 2	“Her largest crowd of the season.”	
Neutral 3	“You know they say when you do this kind of an event you usually start out with a self-deprecating joke. Some people would think this would be tough for me.”	

### Analysis

To test for differences in the interpretation of President Donald Trump’s facial expressions, a repeated-measures anova was performed. Differences were found in regard to sex, age, political affiliation and Trump supporter/non-supporter (Bias). Mauchly’s Test of Sphericity revealed a departure from sphericity for happiness-reassurance,  $W = .678$ ,  $X^2(14) = 112.91$ ,  $p = .000$ . As such, a Greenhouse-Geisser correction was used,  $F(4.49) = 86.741$ ,  $p =$

.000. There was also a departure from sphericity for the anger-threat variable,  $W = .687$ ,  $X^2(14) = 109.129$ ,  $p = .000$ , therefore, a Greenhouse-Geisser correction was used,  $F(4.34) = 18.525$ ,  $p = .000$ . Reported below are the significant differences found between groups.

## **Results**

### **Happiness-Reassurance**

**Sex.** The only significant difference found among the male, female, transgender, other and prefer not say categories was found between male and female participants' ratings on the felt smile video clip, Wilk's Lambda = .791,  $F(20, 535) = 2$ ,  $p = .008$ . Males ( $n=94$ ) rated President Trump's happiness level higher than did females ( $n=94$ ) by an average of 12.3 points.

**Age.** Age was found to have a significant impact on participants' perceptions of President Trump's facial displays. Although the general differences were not found to be significant (Wilks' Lambda = .928,  $F(15, 445) = .815$ ,  $p = .661$ ), Anova tests revealed that some age groups did, in fact, differ significantly on happiness-reassurance for some individual smiles on neutral displays. The first case of difference was found for neutral smile 1,  $F(3, 286) = 4.2$ ,  $p = .006$ .

**Political Affiliation.** Republicans, democrats, independents and others differed significantly on several of the happiness-reassurance measures. Neutral smile 2 was the the first case,  $F(4,285) = 2.512$ ,  $p = .042$ . Differences were also found between...

**Trump Supporter/Bias.** Significant differences were found between Trump supporters and non-supporters in regard to the "Felt" smile,  $F(2, 286) = 8.81$ ,  $p = .000$ . Differences were also found...

### **Anger-Threat**

**Sex.** No significant differences were found between male, female, transgender for the anger-threat variable.

**Age.** Differences were found among various age groups in response to 3 of the 6 video clips when concerning the anger-threat variable. The first instance was the Neutral smile 2 clip,  $F(3, 286) = 7.316, p = .000$ . The next instance was....

**Political Affiliation.** No significant differences were found for the anger-threat variable.

**Trump Supporter/Bias.** Differences were found for both the Neutral 3 and Controlled smiles clips. Neutral 3,  $F(2, 286) = 3.29, p = .038$ ; Controlled smile,  $F(2, 286), p = .022$ .

## **Discussion**

In consideration for individual differences, and the interpretation of President Donald Trump's facial displays, differences were identified. RQ1 addresses whether or not individuals can differentiate between the facial displays presented in the survey. The results demonstrated that respondents scored differently on happiness-reassurance and anger-threat scales. The first discovery was a significant difference in male perceptions of Donald Trump's facial displays when compared to female interpretations. In the happiness-reassurance category, men rated President Donald Trump's facial displays more positively than female respondents. Also, the influence of an individual's age cohort demonstrated differences in reaction to President Donald Trump's facial displays. The age cohorts involved the most recent generation ages 18-21, the millennial generation divided into two groups ages 22-29, and 30-37. Lastly, those older than the millennial generation above age 38. The results demonstrated a significant difference in the interpretation of President Donald Trump's display of happiness-reassurance for individuals ages 30-37 from all other groups. The individuals ages 30-37 are still identified as millennial

according to Pew Research Center; however, the researchers divided the group due to the large variances which might exist. Respondents ages 30-37 interpreted President Donald Trump's facial displays more positive than others, and this may be due to the age groups 18-21 and 22-29, being raised in a more socially accepting and social media vocal atmosphere than the older age groups.

Regarding age, anger-threat was divided quite differently. The significant differences in interpretation of anger-threat were discovered between age groups 18-21 and 30-37, and again for age groups 21-29 and 38+. The initial study hypothesizes that different age generations would interpret President Barack Obama's facial displays differently based on the ethnicity of the president. The present study suggests that the difference in age interpretations will come from President Donald Trump's racial bias, rather than identified ethnicity. The split in identified differences forced the researchers to accept the null in this scenario. However, the differences that do exist indicate the youngest age group and the second oldest age group interpreted the facial displays differently, as did the second youngest group and the oldest group. These findings do still indicate that younger individuals rated higher anger-threat interpretations of President Donald Trump's smiles, but are not consistent enough to accept H1.

RQ2 questions individuals political affiliation and the relationship to perceptions of President Donald Trump's display of emotion. Several significant differences were identified in political affiliation and interpretation of President Donald Trump's facial displays. Individuals who identified as republican rated higher levels of happiness-reassurance than those who identify as democratic. Additionally, those who identified as democratic reported lower levels of happiness-reassurance than those who identified as independent. These results are suggestive of

bias, influencing the perception of President Donald Trump's facial displays. No differences were identified between political affiliation and interpretation of anger-threat however. This could be due to the overall happy and comedic tone of the video segments and the environment of the speech in which the videos are taken.

Similar to the political affiliation results, those who support President Donald Trump reported a significant difference in interpretation of happiness-reassurance than non supporters. A difference was also discovered between non supporters and indifferent individuals, where non supporters responded less happiness-reassurance than indifferent individuals.

Perhaps one of the most interesting findings was the differences discovered in reported anger-threat levels of President Donald Trump. Trump supporters rated higher levels of anger-threat interpretation than no preference individuals. This may be due to several controversial stances and ideas that President Donald Trump presents. Many policies presented by President Donald Trump have been interpreted as a response to right-wing Americans' frustrations with the current state of the country, therefore, promoting anger. The other difference was discovered between non-supporters and no preference individuals, whereas non supporters reported higher anger-threat than indifferent individuals. These findings are again suggestive of bias playing a role in facial displays interpretation.

**Limitations.** Researchers for this study expressed the need to get a wide variety of participants in order to not limit the value of the results from the data by asking a diverse amount of people, such as the variety in ages, social classes, and place of residence. That being said, researchers for this study did not ask participants for the study to reveal the participants' ethnicity. Therefore, the researchers did not gather data regarding ethnicity to find the



relationship between ethnicity and ability to identify anger-threat or happiness-reassurance. The researchers of this study had obtained a total of 294 responses from participants, varying in place of residence. Results showed that participants had ranged from forty out of the fifty states in America, however some states such as New York had more participants recorded than other states such as Minnesota. Therefore, there is still a lack of a variety of geographical locations in the US, which may contain participants that could alter the results of the study. More participants from each state would definitely give more substantial evidence for this study to make assumptions regarding the relationship between location and ability to identify anger-threat or happiness-reassurance.

**Future directions.** This replication study could definitely be used again for further research regarding political figures and identifying happiness-reassurance and anger-threat. Such future implications of this study may include the adaptation of this study to identify nonverbal facial expressions of future presidents in the United States. This method can also be replicated to study political figures other than the president in the U.S. This study could also be replicated to identify nonverbal facial expressions of other presidents or political figures in other countries such as Canada, Spain, the United Kingdom, or France. The replication of this study in different countries would be useful to understand and compare how different cultures identify happiness-reassurance and anger-threat facial expressions from different political officials in a country other than the U.S.