



The Impact of Gender on Evaluations of Online Political Arguments

Michael Payne and Jaime Settle
College of William & Mary

Perceptions of gender exert real influence on everyday life and often result in rigid, internalized gender roles (Athenstaedt 2003). Literature shows that gender roles create biased evaluations of female professionals; for example, women performing intellectual tasks are evaluated as more incompetent and uncaring when 'masculine' rhetoric and leadership styles are employed (Unger 1979, Kierstead et al. 1988, Dow and Tonn 2009). In addition, women are perceived to be less credible in political discussions than men (Mendez and Osborn 2010). Thus it has been suggested that when it comes to engaging in political discourse, women are often left only "with indirect, personal, and helpless modes of influence" (Johnson 2010). We hope to expand the literature by evaluating whether gender biases persists in political discussions that occur on online social media sites.

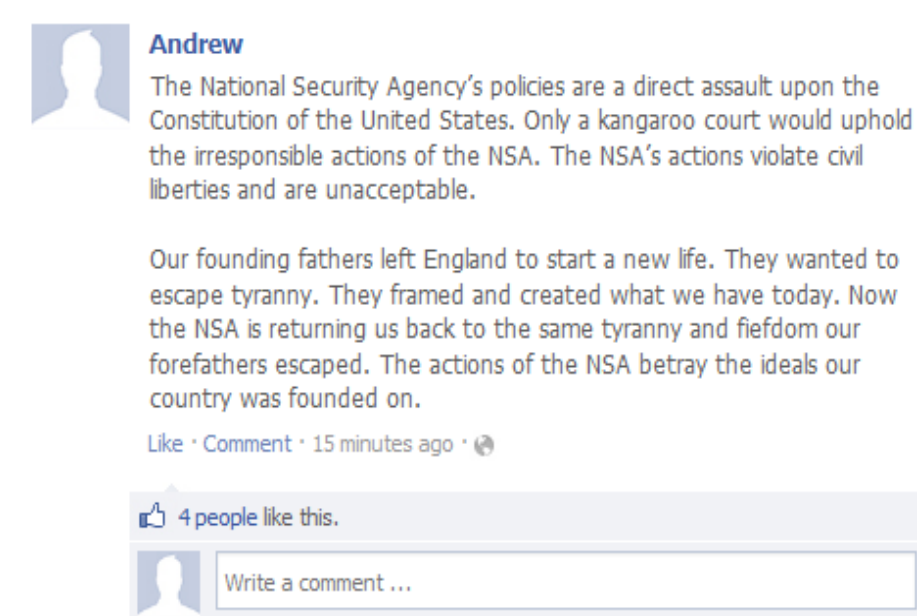
In this paper, we conduct a survey experiment. Each survey respondent is put into one of six treatment groups: an emotional or non-emotional Facebook status made by a male, female, or gender-neutral Facebook user. We then conduct difference of means tests and regression analysis to assess whether there is a systematic difference in respondents' evaluations of political statuses made by male and female Facebook users. We find that there are few statistically significant differences among respondents' evaluations of the statuses. In addition, where statistically significant differences do exist, men are perceived as more emotional and less logical than women. As such, we do not find evidence to support our initial hypotheses.

Sample

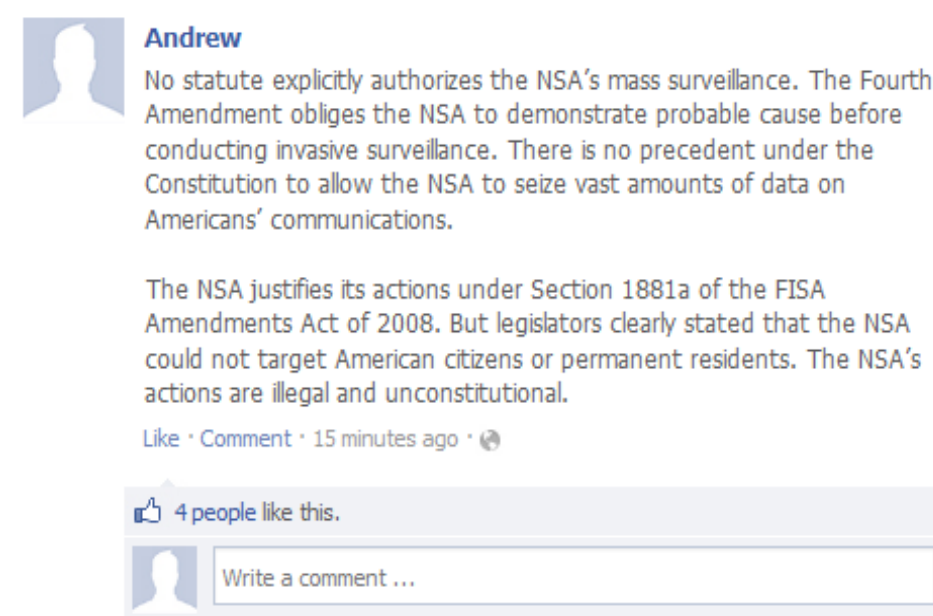
- **Mechanical Turk**
 - Survey ran from February 10 – February 22 2015
 - 666 total respondents
 - 608 respondents who correctly answered the quality control question
 - 107-108 people in each of the six treatment group
 - Survey was 62% male
 - Median age of 33
 - Frequent social media users: majority used Facebook one or more times a day
 - Education, party ID, and attitude towards the N.S.A. measured as possible covariates

Method

Emotional Status



Non-Emotional Status

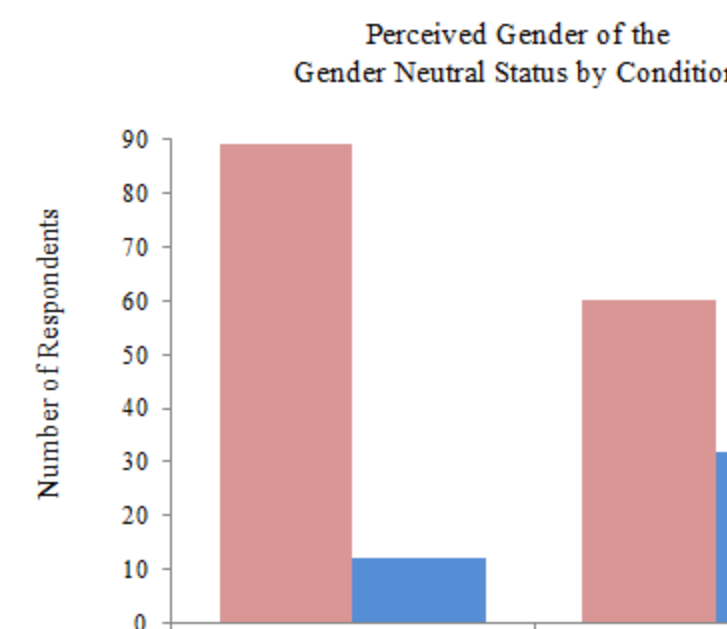
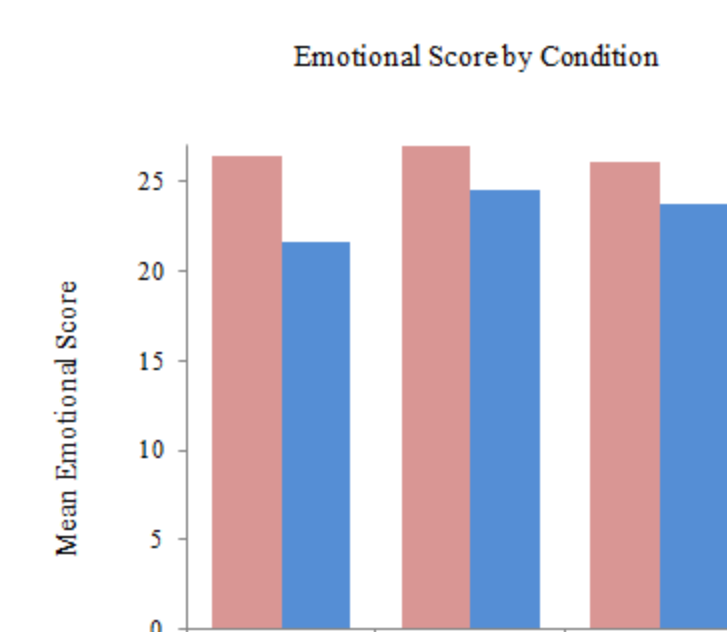
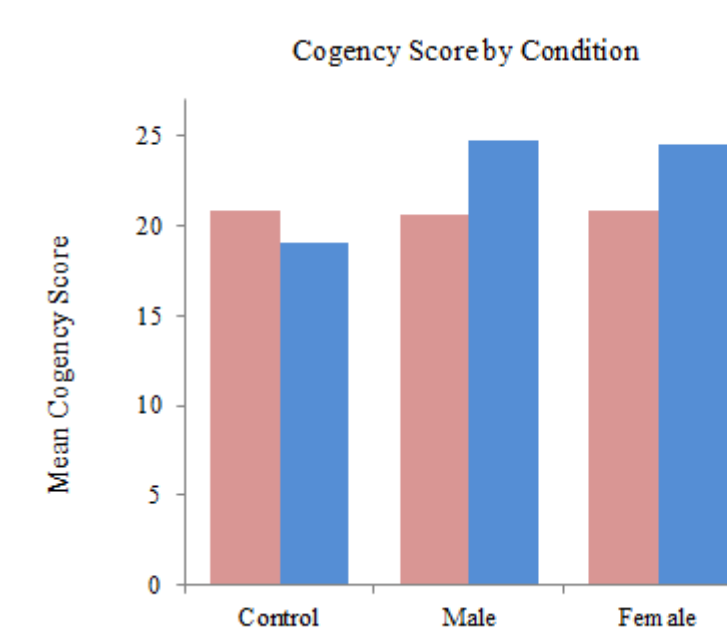


- Statuses based off of comments from *New York Times* news articles about the N.S.A.
 - Emotionality and cogency measured using Linguistic Inquiry and Word Count
- Survey respondents put in one of six treatments: an emotional or non-emotional status made by a male, female, or gender neutral Facebook user
- Questions assessed respondents' perceptions of the emotionality and cogency of the statuses
 - Cogency is the logical coherence and fact-centered nature of the argument; emotionality is the anger, fear, and anxiety present in the argument
- Questions used a Likert scale and were combined into an emotional score or a cogency score
- The cogency and emotionality scores were used to perform regression analysis and difference of means testing

Hypotheses

- H1:** Arguments made by women will be perceived as less cogent than arguments made by men
- H2:** Arguments made by women will be perceived as more emotional than arguments made by men
- H3:** Male participants will perceive arguments made by women as less cogent than will female participants
- H4:** Male participants will perceive arguments made by women as more emotional than will female participants
- H5:** Emotional arguments made by men will be perceived as more cogent and less emotional than emotional arguments made by women
- H6:** Older participants will perceive arguments made by women as less cogent and more emotional than will young participants

Results



Cogency and Emotionality Scores Regressed on Treatments and Covariates

Variable	Cogency Score	Emotionality Score
Emotional Male	-1.03	4.72***
Emotional Female	-1.23	3.78***
Emotional Gender Neutral	-1.42	4.14***
Non-Emot Male	2.75*	2.13
Non-Emot Female	2.49*	1.53
Non-Emot Gender Neutral	-2.80	-0.74
Age	-0.01	0.01
Gender	-0.30	-0.26
Education	-0.30**	0.14
NSA National Security	.31**	-0.07
NSA Civil Liberties	.31	0.11
Constant	21.67	21.44
Observations	0.270	0.296
Adjusted R ²	0.256	0.282
Residual Std. Error	3.69	2.85
F-Statistic	19.48	21.92

Note: *p<.1 **p<.05 ***p<.01

- Upper Left: Mean cogency score by condition
- Middle Left: Mean emotional score by condition
- Lower Left: Number of respondents claiming the gender neutral status was made by a male or female Facebook user
- Upper Right: Cogency and emotionality scores regressed on the treatments and covariates

Analysis and Future Steps

Our results show that there are few statistically significant differences in survey respondents' assessment of the cogency and emotionality of political statuses made by men and women.

In addition, the statistically significant differences that did exist ran in the opposite direction of our hypotheses—men were perceived as more emotional and less cogent than women. As such, we failed to find evidence to support our hypotheses.

Our results, however, are only preliminary. Potential future steps include:

- Utilize measures of implicit gender bias to avoid potential social desirability bias
- Measure specific subtypes of emotionality (i.e. anger, concern, disgust, surprise, etc.)
- Collect and analyze data from real, existing online political discussions
- Explore discussions involving multiple participants