As long as governments have existed, the idea of representation has intrigued scholars, rulers, and citizens alike. Who should rule? Who will represent the needs and wishes of the citizen(and who is a citizen)? Are representatives accountable to rule justly, and if so what is just? Indeed, these very questions have sparked some of the most notable wars, movements, and philosophical divides in human history, including the French and American Revolutions, women's suffrage, and civil rights.

In more recent history, especially since the creation of the 19th Amendment of the U.S. Constitution in 1920 and the civil rights movement of the 1960's, new questions of representation have arisen, and in salient fashion. Some scholars have posited the question: should law making institutions look like the citizens they represent (Mansbridge, 1999)? More specifically, should Congress descriptively represent the gender and racial characteristics or the American public? That is, if women constitute 50% of the population, does that mean 50% of Congress should be women also? While the scope of this article is not meant to be prescriptive toward this ideal, relevant scholarship has shown the substantive effects of legislatures that descriptively represent their constituents (Campbell and Wolbrecht, 2006; Merolla, Sellers and Fowler, 2013; Austin and Pinkleton, 1995; Pearson and Dancey, 2011; Anzia and Berry, 2011; Juenke and Preuhs, 2012). It is notable that while the former is true (women actually make up over 50% of the U.S. population), women hold less than 20% of Congressional seats (CAWP, 2017; Census, 2010). Why is that?

Some have posited an institutional framework suggesting that barriers such as incumbency, partisan and ideological influences, and gate-keeping keep women from winning more offices (Sanbonmatsu, 2002; Elder, 2012; Arceneaux, 2001; Carroll, 2001; Fox and Lawless, 2014, 2010). Another way to look at the issue is to look at the social, psychological, or behavioral barriers that women face to achieving elective office, Fox and Lawless (2004). These scholars suggest that, compared to men, women are far less likely to even *consider* running for office. This behavior stems from how women are socialized from a young age, and such socialization continues on into adulthood. Women, on average, are much more likely to perceive themselves as less qualified to run for office than are men, regardless of the level of their actual qualifications (Fox and Lawless, 2014; Kilng et al., 1999), and as such are far less likely to run for office (Fox and Lawless, 2014; Kanthak and Woon, 2015).

Data and Methods

With this in mind, We conducted a Facebook experiment in the Summer of 2017 considering that if these are among the largest barriers that women face in achieving elective office, then we may see these effects borne out in responses to targeted ad messaging inviting recipients to a political leadership program. We tested this theory using the Michigan Political Leadership Program (MPLP) event Engage Battle Creek, held in Battle Creek, MI on July 21st, 2017 as a case study. The event was focused on education policy in the State of Michigan, and ads were delivered randomly to Facebook users who claimed zip codes in the greater Battle Creek area.

There were three ads used in the experiment. First was the control ad with only generic messaging and was delivered to both men and women. The second ad was a targeted message that explicitly cued gender, and was only delivered to women. The message in the third ad has a nuanced appeal that targeted persons that may have a desire to get involved in politics but may not perceive themselves as qualified to do so—given the literature discussed above that women are less likely to perceive themselves as qualified and assuming that is a major barrier to women achieving elective office, I classify the third ad as an implicit gender cue. All three ads mentioned the educational policy that the event was focused on.

18,290 people received the control ad (8,983 women, and 9,135 men), 5,547 people received the ad with the implicit gender cue (2,730 women and 2,754 men), and there were 15,525 women who received the ad with the explicit gender cue.

We looked at three separate dependent variables: ad clicks, online sign-ups, and whether or not the individual attended the event.

Statistical significance is reported at the .05 level.[1]

[1]One individual who signed up online, signed up for the wrong event (Engage Grand Rapids) through the use of the implicit gender cue ad. The observation in question was the lone man who signed up through the use of Facebook ads. I could have treated this in two ways: exclude the observation and ignore the effect of the ad, or include the observation under the assumption that the ad worked, even though the subject signed up for the wrong event (intentionally or unintentionally is unknown, as the subject did not attend the event). In any case, a case can be made for or against inclusion. I chose to ere on the side of keeping as much data as possible. Regardless, it had no impact on the statistical significance of the findings.

Hypotheses

Ad Clicks

H$_1$: The Implicit ad will be the most popular ad in terms of clicks by proportion among women.

Online Sign-ups

H$_2$: The implicit ad will be the most effective ad in terms of activating recipients to sign-up for the event online by proportion among women.

H$_3$: The implicit ad will be more effective for women than men in terms of activating recipients to sign-up for the event online by proportion.

H$_4$: There should be no difference between men and women in the effectiveness of the control ad in terms of activating recipients to sign-up for the event online by proportion.

Attended Event

H$_5$: The implicit ad will be the most effective ad in terms of activating recipients to attend the event by proportion among women.

H$_6$: The implicit ad will be more effective for women than men in terms of activating recipients to attend the event by proportion.

H$_7$: There should be no difference between men and women in the effectiveness of the control ad in terms of activating recipients to attend the event by proportion.

Analysis

Clicks

Of the 18,290 recipients who received a the control ad, 316 clicked the link (1.73%). The explicit gender cue ad garnered 49 clicks out of 5,547 (.88%), and the implicit gender cue ad was clicked on 142 times out of 15,525 recipients (.91%). These findings lead me fail to reject the null hypothesis that the implicit gender cue ad would not be significantly different in terms of popularity of clicked ads among women.

Sign-ups

When we change the dependent variable from clicks to sign ups, however, we see different results. Engage Battle Creek received 45 online sign ups. Of those 45, 15 signed up through the use of a Facebook ad (33.33%) and 30 through some other source.

Of those who signed up through a Facebook ad, 4 women signed up through the explicit gender cue ad. And 11 (1 man, and 10 women) through the implicit gender cue ad. The control ad did not activate anyone to sign-up, even though it was the most popularly clicked ad.

Testing hypotheses 2–3 by running a difference in proportions test, The results for were statistically significant for all three of the hypotheses, leading me to reject the null hypothesis that there was is no statistical difference between the three ads in terms of activating women to sign-up for the event by using an implicit gender cue ad as opposed to either the control ad or the explicit gender cue ad. That is, the implicit gender cue was much more likely to activate women to sign up in a comparison to men who received the same ad, and compared to women who receive the control ad or the explicit gender cue ad.

Attendees

Changing now our dependent variable to whether or not an individual actually attended the event, we find that in total there were 29 attendees. Of the 29 attendees, 18 were women (62.07%) and 11 were men (37.93). Of the 45 people that signed up online only 18 actually attended the event: 15 women (83.33%) and 3 men (16.67%). Of the 15 that signed up through the use of a Facebook ad, 8 actually attended, or about 53.33%, while only a third of those that signed up through some other source attended (10 of the 30).

Looking directing at the ad messaging, we find that of the 4 women that signed up via the explicit gender cue ad, 1 actually attended (25%). And of the 10 women who signed up through the implicit gender cue ad, 7 actually attended (70%). The one man that signed up through the implicit gender cue ad did not attend the event. While these values could be considered by some as substantively significant, because randomness cannot be controlled for, statistical significant is not instructive.

However, if we looks specifically at the proportions of attendees as a function of those who received the ads, we can overcome this barrier. What we find is that just as with sign-ups, we can fail to reject the null hypotheses of each of hypotheses 5–7 that there is no statistical difference between the implicit gender cue ad and either of the control or explicit gender cue ad. In other words, the implicit gender cue ad was best at activating women to actually attend the event in a comparison of women who received either the control or explicit gender cue ads, and in a comparison of men who also received the implicit gender cue ad.

Discussion

While these results seem very promising, it should be noted that while statistical significance was achieved at the .05 level for 6 of out 7 hypotheses, we should temper our excitement a bit due to the extremely low proportions and large sample sizes. A critical observer might conclude that these results, while statistically significant, are not substantively significant. On the other hand, the results passed the conventional hurdles of statistical significance, and validated the theory behind the experiment. Further, large substantive results were found when looking at the proportions of women who were activated to attend the event as a function of those who signed up (70% for those who received the implicit gender cue ad as opposed to 25% for the explicit gender cue ad, and 33.33% attendance rate for those who signed-up online through some other means.) Replication would be a good next step for this experiment to see if these same results hold with other events.

In summary, we found some support for our theory that when constructing targeted ads to achieve the goals of getting more women to participate in political leadership engagement events, perhaps the best way to engage women is do so with a message about qualifications (implicit gender cues), rather than generic ads, or even explicit gender cues.

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