US Centre Summer Research Grant

Recipient name: Asli Ceren Cinar

Project title: Who benefits from Masculinity? A Digital Conjoint Experiment

Summary of project:

With this project, I hope to shed light on the potential biases that may exist in the democratic process and provide insight into how to create a more equitable political system. We can move towards a more inclusive and equal electoral process by analysing the effect of facial masculinity on political candidates. This project finds experimental evidence that facial masculinity plays differential roles regarding candidates' race and gender. Funding from the Phelan US Centre has allowed me to field the conjoint survey experiment and undertake my research. In the report, I will talk about how I collected the data and details about the experimental methodology in addition to the results.

WHO BENEFITS FROM MASCULINITY? A Digital Conjoint Experiment

Introduction

There is a long-standing association between masculinity and leadership in the United States. In politics, where masculinity has traditionally been associated with strength, competence, and authority, this gendered stereotype is especially pervasive. So, political candidates that exhibit facial traits and behaviours that are considered as masculine are more likely to be viewed as effective leaders and have a higher chance of getting elected. Although, there may be some general trends indicating that candidates with more masculine facial features are more probable candidates for office, but these trends are vulnerable to a vast array of individual and contextual factors that might impact voter preferences.

The facial masculinity of political candidates has been found to have a substantial effect on people' evaluations of their electability, issue alignment, trustworthiness, and competence (Klofstad, 2017; Little et al., 2007; Tigue et al., 2012). Furthermore, research suggests that facial masculinity can also influence voters' perceptions of a candidate's ideological stance. Specifically, facially masculine candidates are often perceived as more conservative than those with less masculine faces. This perception can be particularly relevant in contexts where conservative values and policies are valued, making facially masculine candidates more likely to be successful.

The extent to which facial masculinity affects political candidates may, however, depend on variables like race and gender. Studies have shown, for instance, that voters perceive white male politicians to be more masculine than non-white or female candidates, regardless of their actual facial traits (Anderson & Klofstad, 2012; Oh et al., 2019). This points to the possibility that the perception of facial masculinity and its effect on political candidates are influenced by the interplay of race and gender. The candidate's gender may be able to moderate the effect of facial masculinity on electoral success. Specifically, facially masculine female candidates may be perceived negatively as they challenge traditional gender norms and expectations. Furthermore, there is a complex interplay between facial masculinity and gender. While it is true that men are more likely to have masculine features, this doesn't mean that all men have overtly masculine faces. In addition, genetics, hormones, and environmental variables can all play a role in whether or not a woman or a man displays facial masculinity.

Even when faces are factually identical in terms of masculinity/femininity, individuals tend to perceive African Americans as more masculine than Caucasians, according to some research on the intersection of race and facial traits. This may be the result of cultural prejudices associating African American men with hypermasculinity and aggressiveness. Hence, African American candidates with more masculine facial traits may be seen as much more intimidating and less approachable than their Caucasian counterparts with comparable facial characteristics.

Yet, the effect of facial masculinity on voter perceptions may differ depending on the voter's race and gender identification. Given societal standards on black masculinity, African American voters may be less likely to perceive a black candidate's masculine qualities as unfavorable. Similarly,

regardless of the candidate's race, women voters may be less likely to see male facial features as attractive.

While research on this topic is scarce, it suggests that the effect of facial masculinity on voter perceptions of black candidates is complex and presumably influenced by a number of factors, including race, gender, and cultural preconceptions. To fully understand how facial masculinity, race, and gender all influence voters' perceptions of political candidates, we should first consider their intricate interplay. With this project, I hope to shed light on the potential biases that may exist in the democratic process and provide insight into how to create a more equitable political system. We can move towards a more inclusive and equal electoral process by analysing the effect of facial masculinity on political candidates. This project finds experimental evidence that facial masculinity plays differential roles regarding candidates' race and gender.

Funding from the Phelan US Centre has allowed me to field the conjoint survey experiment and undertake my research. In the report, I will talk about how I collected the data and details about the experimental methodology in addition to the results.

Data collection

There are two separate stages of data collection for this project. The initial stage of the data collection was carried out in the month of October 2022, and the second stage was carried out in the month of February 2023.

I received ethics approval from the LSE's Institutional Review Board to carry out two separate studies for this investigation. The second phase consists of a digital experiment called a digital conjoint, in which voters evaluate computer-generated candidates. This will not only replicate the circumstances under which candidates are judged in the real world, but the use of computer software to generate the candidates will also guarantee that none of the participants will be familiar with any of the candidates. In this report, I cover both the first part and the second part of the project. I recruited participants using CloudResearch's Connect platform for both validation and the experimental stage. Figures 1 and 2 show examples of the survey platform that that were presented to the people who participated in our experiment.

Twenty American adults were shown photographs of computer-generated candidates to validate facial masculinity and femininity manipulations (without any extra information) and asked to rank them from most masculine to least masculine. These participants were equally distributed in terms of gender, race/ethnicity, and age in relation to the objectives of the study, were asked to evaluate the facial masculinity of these candidates solely based on their photographs, which were provided to them without any additional information. Each participant evaluated ten of the twenty faces that were randomly assigned to them. The gender (woman vs. man), race (Caucasian vs. African American), and degree of facial masculinity of these faces varied (masculinized face vs. femininized face) as shown in Table 1.

In the second phase, a separate sample of 1,014 American adults were shown candidate profiles with pictures (of varying gender, race, and the degree of facial masculinity combinations).

Randomly varying all qualities allowed me to isolate the effect of each attribute on candidate preference and ratings while controlling for the effects of other attributes. Each participant completed three tasks, each of which involved making a choice between two candidate photographs and answering questions designed to gauge their perceptions of those candidates (e.g., attractiveness, trustworthiness, competence, warmth, representability, dominance) before proceeding to the next choice task.

Table 1. Attributes and values in conjoint task

Attributes	**Values**
Gender	Woman/Man
Race	Caucasian/African American
Masculinity	Masculinized/Feminized face

Validating the computer-generated faces

The process of masculinization of both female and male faces required five phases, and it was accomplished by using an application from Mitteroecker et al. (2015) to a collection of computer-generated human faces: i. widening faces with a wide inter-orbital distance; ii. widening the nose; iii. thinning the lips; iv. enlarging the lower face, i.e., a larger jawline; and v. reducing the size of the eyes.

The validation test allowed me to identify and eliminate computer-generated faces that did not pass the test, i.e., those whose degree of masculinity was not recognised by individuals. Overall, the test yields sufficient results to forward the faces to the next round, a digital experiment in which the vocal component will be accompanied by the policy stances of these computer-generated candidates. Twelve out of twenty facial masculinity manipulations were verified with a minimum of 80% accuracy. This will produce an equal number of candidates for each racial and gender group.

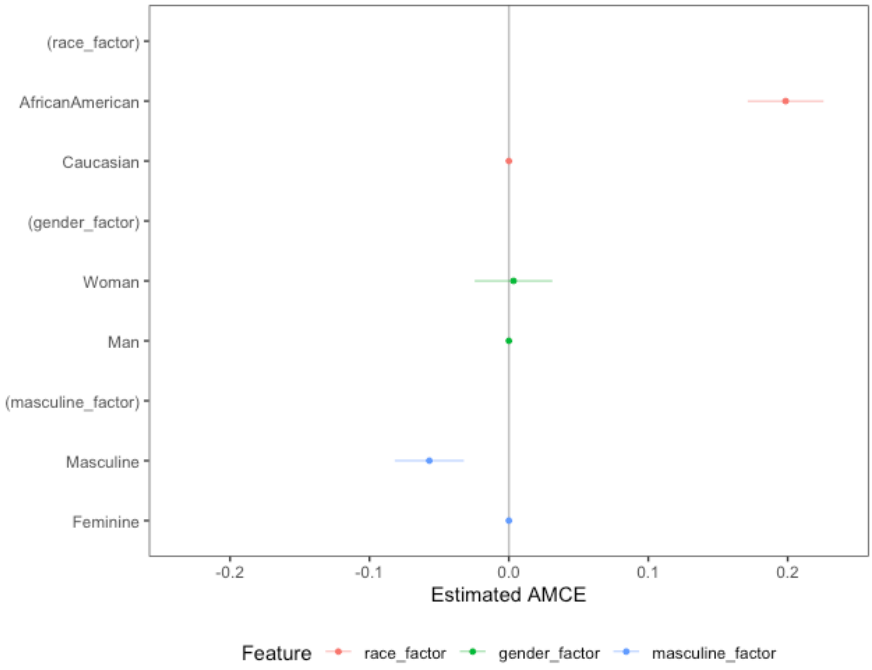
Analysis

Each subject generates six observations: three rounds, each with two alternatives. The treatment effects were determined with OLS regression models, with each subject decision scenario acting as the unit of analysis (Hainmueller et al., 2014). Because each participant will make numerous judgments throughout the experiment, I will cluster the standard errors by participant to account for differences at the individual level.
To assess the heterogeneous effect, in accordance with Leeper et al. (2020), I computed the unadjusted marginal means, which enabled me to quantify the preference for a particular characteristic. For covariate adjustment, the respondent's gender, age, level of education, and ideology were added linearly to the OLS equation. I employed one-tailed hypothesis tests and rejected the null hypothesis if $p < .05$; standard errors were clustered by respondents throughout.

Results

Discussing the main effects

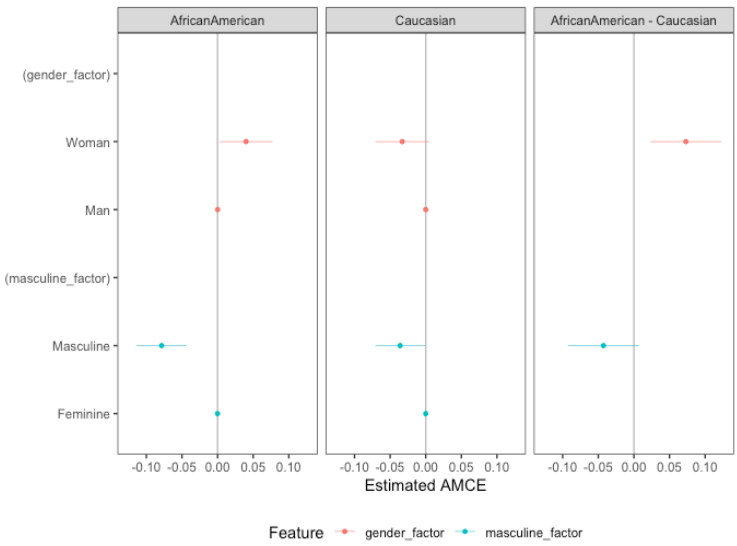
1. An African American candidate were, on average, preferred more than a Caucasian candidate among the participants.
2. The average causal effect of being a woman candidate versus being a man candidate does not have a significant difference for the participants.
3. On average, a candidate with higher facial masculinity compared to a candidate with a higher facial femininity is preferred less among the participants.

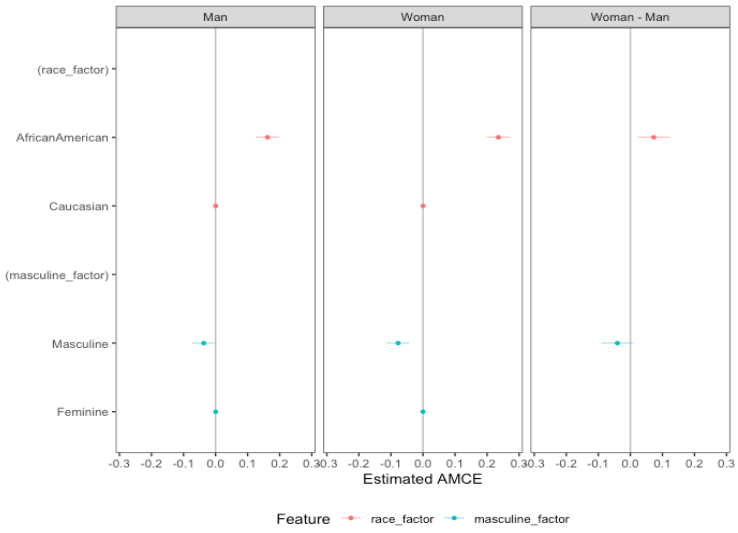


Discussing the interaction effects

4. The interaction of race with the level of facial masculinity shows us that on average, African American candidates are preferred less when their facial masculinity is higher. The findings are similar for Caucasian candidates; however, the effect size is smaller. On average, I find that African American candidates with a higher facial masculinity level is preferred less than Caucasian candidates with higher facial masculinity level compared to co-racial candidates with lower level of facial masculinity.
5. The interaction of race with gender shows us that African American woman are, on average, preferred more compared to an African American man. The effect, although not significant, is on the opposite direction for Caucasian woman. Caucasian women candidates are preferred less than Caucasian men candidates. On average, I find that African American women candidates are preferred more than Caucasian women candidates compared to co-racial men candidates.

6. The interaction with gender with the level of masculinity shows us that on average, both men and women candidates are preferred less when compared to a co-gender candidate with lower level of masculinity. However, the effect is higher for women candidates. On average, I find that women candidates receive a higher penalty for having a higher facial masculinity level compared to men candidates.

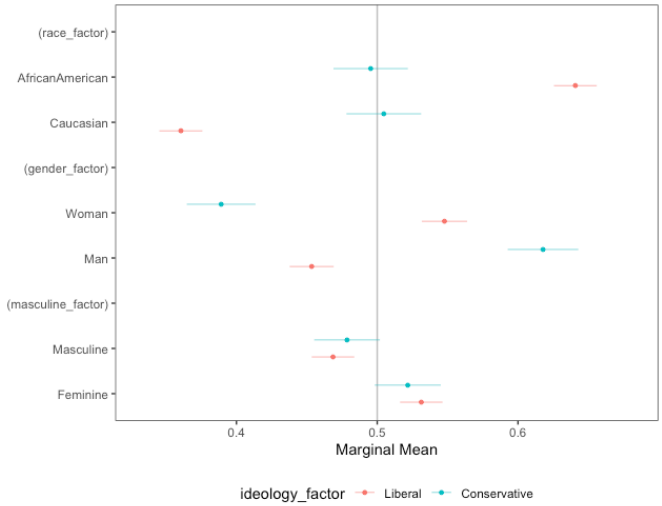




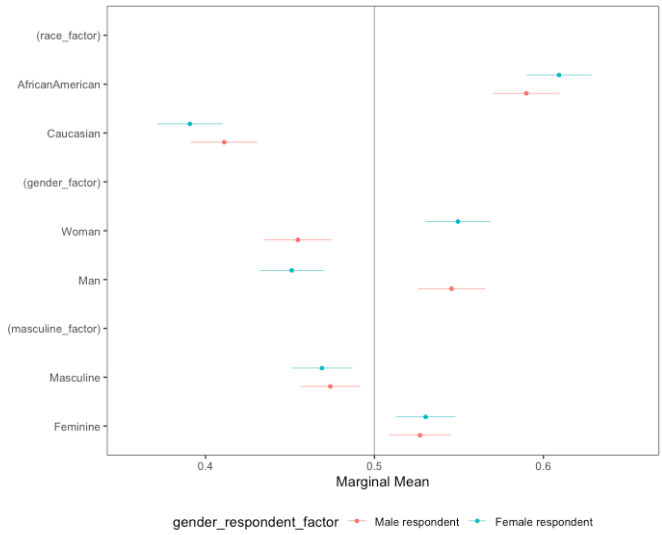
Discussing the heterogenous effects

Some of the above-presented effects needs further explanation. To understand the underlying mechanisms, following Leeper et al. (2020), I measured marginal means to compare the differences between subgroups. Below are the results, when I look at the descriptive differences in preferences by respondents' ideology, gender and race.

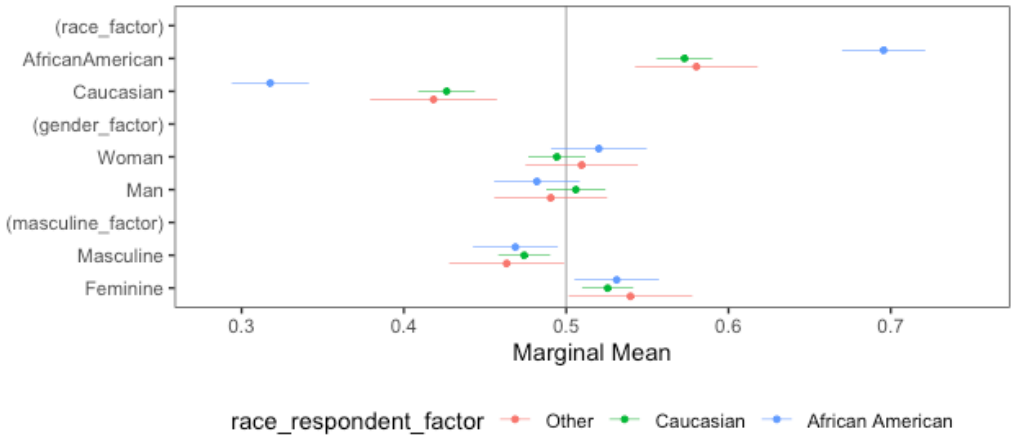
7. On average, respondents who identifies themselves as liberals preferred to choose an African American candidate significantly more than respondents who identifies themselves as conservatives. When it comes to evaluating the gender of the hypothetical candidate, liberal respondents preferred to vote for women candidates more than men candidates, however, conservative respondents voted for men candidates more than women candidates. These two findings from subgroup analysis are in line with the literature showing that liberal voters independent of their race and gender, would prioritise diversity in representation (Crowder-Meyer et al., 2020). When I look at the marginal means for these two subgroup and the average votes a masculinized and feminised candidates receive, I see no divergence in their voting preferences.



8. When I analyse the difference in marginal means by women and men respondents, one difference in their voting probability is for candidate gender. I find that respondents, on average, highly prefer a co-gender candidate. Between women and men respondents, I find no difference in their voting preferences for candidates' race and facial masculinity level.



9. When I analyse the difference in marginal means by respondents' race, one difference in their voting probability is for candidate race. I find that African American respondents, on average, highly prefer a co-racial candidate. The effect is again positive for Caucasian candidates, they prefer to vote for an African American candidate more than a Caucasian candidate, however, this effect is significantly smaller than African American respondents' preference for an African American candidate. Looking at respondents' race, I find no difference in their voting preferences for candidates' gender and facial masculinity level.



Next Steps

The next step in preparing experimental stimuli is to develop extremely realistic voices for these hypothetical candidates using artificial intelligence. The use of artificial intelligence to generate the appearances and voices of political candidates has the potential to diminish voters' preconceptions of a candidate and to preserve procedural consistency between interventions. This process is also useful from a research aspect for manipulating the masculinization of candidates' appearances and voices, as well as for generating the desired diversity in their demographic characteristics. In the last phase, a digital conjoint experiment will be conducted to determine how vocal and facial masculinity influence candidate preferences.

In a conjoint survey experiment, Crowder-Meyer et al. (2020) demonstrate that political liberals are more committed to diversity and racial equality than political conservatives, making them more likely to choose black candidates when cognitive load is low. But, when liberal voters' cognitive resources are taxed, their ability to conceal the use of biassed stereotypes decreases, leading to reduced support for black candidates. In the last round of the experiment, participants will be asked to evaluate not only the facial masculinity, gender, and race of the hypothetical candidates, but also to listen to audio recordings of the candidates' policy positions. Participants will evaluate their choices for these hypothetical candidates based on more than three characteristics in the subsequent experimental step. I believe this next stage will help me better comprehend the heterogeneous effects of participant ideology.

This research project, a large-scale digital experiment employing cutting-edge experimental political science, would not have been possible without the US Phelan Centre's generous financial assistance. I intend to explore democratic representation by discovering implicit biases in the US context. The findings will hopefully pave the way for the next phase of my Ph.D. research, in which I will examine what candidates can do to reduce the likelihood of prejudice.

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Appendix 1

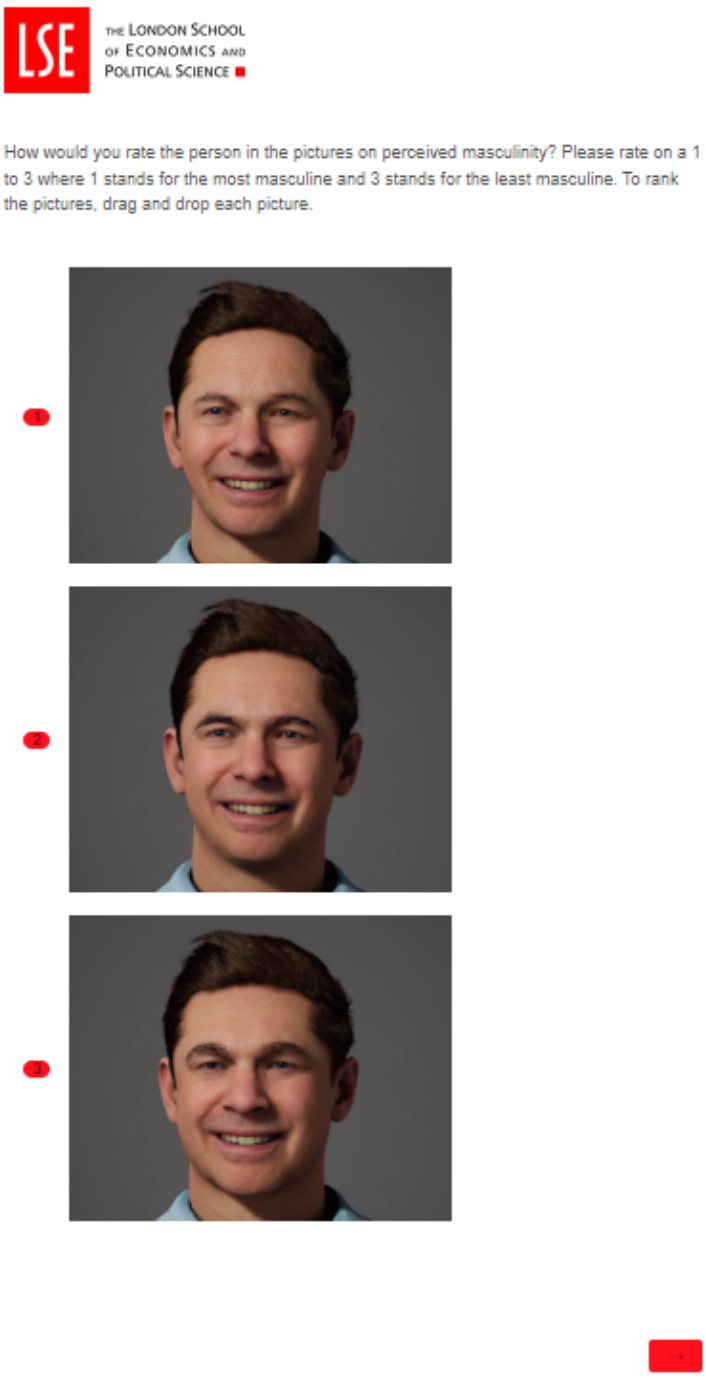

Figure 1 Screenshot of one question in the validation pre-test

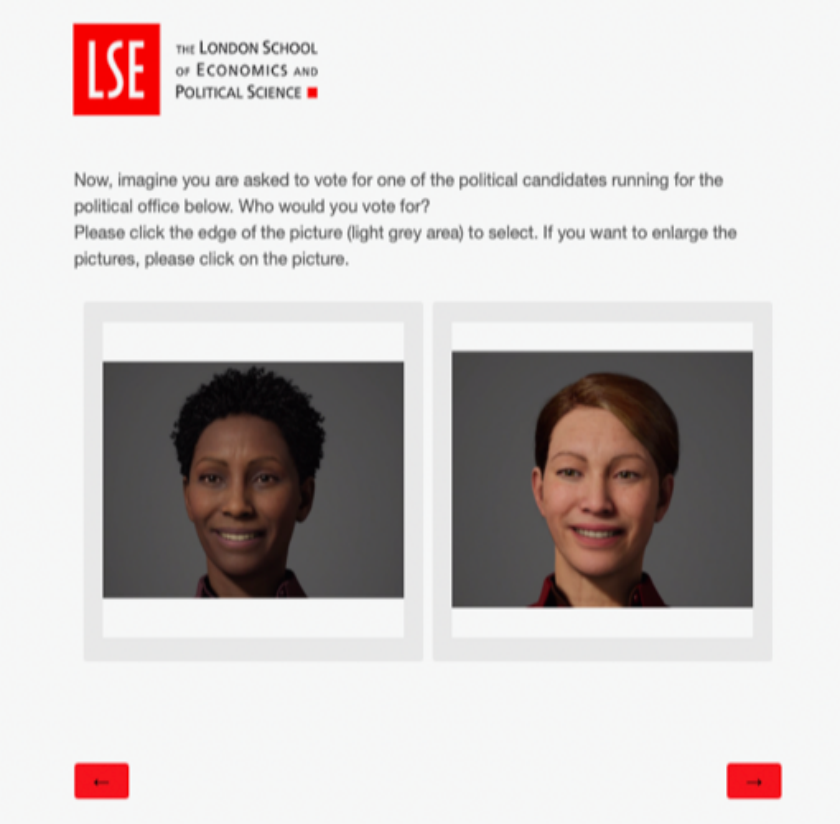

Figure 2 Screenshot of the choice task