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Young voters, older candidates, and policy preferences: evidence from two experiments.

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Abstract

Recent elections around the world have seen young voters come out in large numbers to support young leaders running for office, such as New Zealand's Jacinda Ardern in October 2020. At the same time, however, young voters have shown strong support for relatively old candidates such as Jeremy Corbyn in the United Kingdom and Bernie Sanders in the United States. While the former is consistent with the descriptive representation literature, the latter is not. This article deploys an experimental design involving 1,000 young participants to analyse young voter support towards older candidates. We find that young voters are significantly more likely to support older candidates if they are aware that these candidates champion general left-wing policies, but the same is not true for young candidates. We also find that *ceteris paribus* younger voters do not prefer younger candidates to older candidates.

Keywords

Young voters; Old candidates; Young candidates; Youth representation

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Young voters, older candidates, and policy preferences: evidence from two experiments.

Introduction

This article deploys an experimental design to analyse young voter support towards older political candidates. The key proposition of the article is that there is something ‘different’ about millennials and post-millennials and the way they engage with the political process, compared with older generations. This proposition is driven by the observation that in recent years millennials and post-millennials have been drawn to older male candidates in more than one advanced western democracy – raising questions around the descriptive and substantive representation of voters in the political process.

Empirical research (e.g., Campbell & Cowley, 2014; Cutler, 2002) suggests that the descriptive representation of societal groups leads to substantive representation (cf. Pitkin, 1967). But young people are egregiously under-represented in descriptive terms. According to the United Nations Department of Economic and Social Affairs, in 2020 slightly over 30 per cent of the world population was aged between 20 and 39 years old. Yet, at the time of writing, to our knowledge there were only five heads of state and/or government who were under the age of 39.¹ Of course, this is not surprising, given the time it takes for most career politicians to make it to the top of the political career ladder (Allen, 2013; Binderkrantz, Nielsen, Pedersen, & Tromborg, 2020), but research has also shown empirically that this underrepresentation of young people is also reflected on the lower rungs of the ladder in national legislative bodies around the world (Joshi, 2013; Stockemer & Sundström, 2018; Tremmel, Mason, Godli, & Dimitrijoski, 2015), where we might expect to see a stronger representation of young people. In the context of western democracies, empirical research creates an expectation that young voters should support young candidates for public office in circumstances where these candidates are available. The idea that young voters should vote for young politicians makes sense both descriptively and substantively, a bit like ‘women should vote for women’ or ‘blacks should vote for blacks’ (cf. Campbell & Heath, 2017; Mansbridge, 1999). But do they?

Anecdotally, the evidence is mixed. On the one hand, Jacinda Ardern, Prime Minister of New Zealand (born in 1980), led her party to a landslide victory in October 2020 with what appeared to be significant youth support (Pascoe, 2020; also Duncan et al 2021) and, at the time of writing (June 2022), New Zealand Labour continues to enjoy greater support from young people in opinion polling.² On the other, in January 2020, Sebastian Kurz, the former Chancellor of Austria (born in 1986), had to turn to the Green party, which enjoyed very large support from young voters³, in order to form a government. At first glance these events could be explained by ideology (see Sevi, 2020), with Ardern leading the left-wing Labour Party, Kurz leading the right-wing People's Party, and young voters typically favoring left-wing policies (cf. Crittenden, 1962; Glenn, 1974; Rouse & Ross, 2018). Related to this, there is also plenty of anecdotal evidence of a different phenomenon - that is, of relatively old candidates, especially left-wing candidates, who have garnered considerable youth support. In the United Kingdom, the 2017 general election has been defined as the 'youthquake' election (Sloam & Henn, 2019; Sturgis & Jennings, 2020), where young voters turned out in very large numbers to support Jeremy Corbyn (born in 1949), then leader of the UK Labour Party. In the United States, young Americans who were already engaged in recent social movements such as Black Lives Matter or Occupy Wall Street (Maxwell & Schulte, 2018) were also very supportive in both 2020 and 2016 of Democratic presidential hopeful Bernie Sanders (born in 1941). There are also other examples of older left-wing leaders who have enjoyed significant support from young voters, including Green politician Hans-Christian Ströbele (born in 1939) in Germany and Jean-Luc Mélenchon (born in 1951) in France, even when the latter was running against the relatively young Emmanuel Macron (born in 1977).

To summarize, while existing empirical research creates an expectation that young voters support young candidates, empirical evidence seems to point instead towards a reality in which young voters will support young candidates *provided that* these young candidates champion left-wing policies on their behalf (cf. Sevi, 2020). In other words, relative youth appears not to be enough to ensure support from young voters. Even more interestingly, it appears that young voters all over the world have no issue with supporting relatively old candidates, that is, people way into their 70s. But beyond

the literature looking at young voter support for young candidates, there are virtually no studies that look at young voter attitudes towards older candidates.

Using an experimental design and approximately 1,000 research participants, we explore the attitudes of young voters towards significantly older left-wing candidates. We try to uncover the causal mechanism behind the counterintuitive behavior of young voter support for older candidates through a multi-step experimental design. First, we test if young attitudes towards older candidates change once young voters are aware that these older candidates champion left-wing policies. Second, we test whether - all things being equal - young voters tend to view younger candidates more favorably than older candidates. Our first test reveals that young voters are markedly more likely to support older candidates when they know that the older candidates stand for general left-wing, progressive policies. In our second test, we also find, however, that young voters appear indifferent to a candidate's age: they have no problem supporting older candidates and do not appear to show any significant preference for younger candidates.

The rest of the article is organized as follows. Next, we locate our research in the wider literature on young voters, representation, and voter behavior. Then, we specify our cases and briefly discuss their relevance. Following that we operationalize our experimental design and describe our findings. We then discuss our findings in the context of the existing literature and assess their implications for current debates. Finally, we conclude with a summary of our findings and analysis and suggest some areas for further research.

Young voters and political representation

Hanna Pitkin's (1967) work on the concept of representation taught generations of political scientists to think of political representation in terms of formal, symbolic, descriptive, and substantive representation. It also inspired a large number of empirical research projects showing that descriptive representation leads to substantive representation. A quick glance at the literature, however, shows clearly that scholars engaged in this line of research have focused primarily on gender, race, and

ethnicity (e.g., Espírito-Santo, Freire, & Serra-Silva, 2020; Mansbridge, 1999). While age is certainly different⁴ from gender, race, ethnicity and other defining groups individuals belong to (Stockemer & Sundström, 2018), even only because people inevitably age and consequently abandon the age group, there is a reasonable expectation that the mechanism at play when it comes to political representation and voter behavior may be similar.

Social Identity Theory (see Tajfel, 1982) strongly suggests that individuals prefer candidates of their same age-group (see Cary, Chasteen, & Cadieux, 2013), especially when it comes to leadership positions (see Hogg, 2001). Research by social psychologists has even gone as far as empirically showing that ageism is stronger than racism or sexism when it comes to voters choosing individuals of their own group at simulated elections (Piliavin, 1987; Sigelman & Sigelman, 1982). They find, however, that ageism is particularly strong among older voters, who tend to clearly select older candidates over younger candidates. In a recent study of U.S. congressional elections based on survey data, Webster and Pierce (2019) show strong support for the idea that voters prefer candidates of their own age-group. They find that voters use candidate age as a heuristic shortcut in their decision-making process by favoring candidates that are closer in age to them, especially in low-information contests. The authors note, however, that their findings apply to voters and candidates of all ages.

When it comes to specifically looking at young voters, very few studies rigorously test empirically whether or not young voters prefer young candidates. Pomante and Schraufnagel (2015), in a study on young voter turnout in the United States, show both experimentally and observationally that the turnout of young voters increases when there are young candidates running for office. In the observational portion of their study, they find that the age gap between candidates is a predictor of higher young voter turnout. While these findings seem to suggest that young voters do tend to support young candidates, the proposition that is actually tested is much narrower, as it implies a contest between a younger candidate and an older candidate. In other words, they find that when an older candidate runs against a younger candidate, the turnout of young voters tends to be higher, presumably to support the young candidate. Similarly, in a recent comparative study based on the

analysis of survey data from 51 countries, Sevi (2020) finds that voters are more likely to favor and vote for a political leader that is close to their age. She also finds that, in particular, young voters aged under 40 slightly prefer younger leaders, although she also notes that the size of the effect she finds is very small.

The issue, however, is not simply whether young voters prefer young candidates. Borrowing Pitkin's (1967) terminology, we can't only look at the issue from the descriptive or 'standing for' perspective, but we need to consider it from the substantive or 'acting for' point of view as well. Ideologically, young voters display very clear preferences. In general, where we see processes of electoral dealignment around the world, older individuals often seem to be drawn to right-wing populist political movements, candidates and parties (Lees, 2018). In contrast, younger individuals display political leanings significantly to the left of older voters (Fisher, 2018). Young voters seem to be attracted to a world view that synthesizes the kind of identity politics typically associated with the 'New Left' of the 1960s and the array of traditional critiques of class inequality and capitalism typical of the 'Old Left' of the 1930s (Milkman, 2017). Consequently, and perhaps even more clearly, from a policy point of view young voters seem to display preferences that are in direct contrast with the preferences of older voters (see Fisher, 2020). The existing literature assumes that there is always going to be some degree of intergenerational conflict within society, if only because different policy areas can affect individuals in completely different ways based on their age (Krieger & Ruhose, 2013). For instance, young voters might have different policy views on education, welfare, pensions and military conscription in comparison to older voters (Joshi, 2013; Stockemer & Sundström, 2019). In a study based on data from municipal elections in Japan, McClean (2019) shows that the election of younger mayors is usually associated with a marked shift in social welfare expenditure from elderly welfare to child welfare. Similarly, analyzing the introduction of bills by members of the U.S. Congress, Curry and Haydon (2018) find that older lawmakers are more likely to introduce bills that favor older citizens and deal with senior issues than younger lawmakers. Interestingly, however, they also find that districts with a sizable proportion of senior voters result in representatives that do pay

considerable attention to higher salience senior issues regardless of the age of the representative. In other words, while the expectation that descriptive representation leads to substantive representation is empirically confirmed by the existing literature, there is also some evidence that substantive representation can occur across different age groups independent of descriptive levels of representation (see Curry & Haydon, 2018).

The question that remains unanswered in the existing literature is how do young voters react if candidates are great examples of someone who is willing to “act for” young voters, even though their age makes it impossible to argue for any kind of descriptive representation? In the next pages, we attempt to shed some light on this question.

Case selection

We focus our experiment on three specific cases of older left-wing politicians⁵ who challenge some of the assumptions underpinning existing models of voting behavior and political representation discussed above, given their relative age and a considerable degree of support from young voters in recent years: Jeremy Corbyn, Bernie Sanders, and Hans-Christian Ströbele.

[Table 1 about here]

Table 1 sets out the basic information about our three cases selected. We designed each entry as a general policy statement that directly relates to some of the broad policy areas that each of the three politicians have shown support for throughout their political lives, allowing for the country-specific institutional parameters of politics in the United States, the UK, and Germany. The summary information reveals three broadly similar individuals in terms of their age, the social milieus from which they emerged, and their policy positions. All three men are aged at the time of writing between 70 and 80, and considering the different expectations about the role of government in the three countries, all three men are markedly left-of-center on key policy positions, including the economy, social movements and identity politics, military engagement, humanitarian intervention, and scrutiny of the intelligence services. All three men are in favor of stronger state intervention in the economy,

champion issues such as LGBT rights, are skeptical about military engagement, and favor greater oversight over the intelligence services.

So, taken in the round, we have three distinct cases of a relatively old, male, strongly left of center political figure. We now operationalize our experiment to assess how young voters feel about older candidates.

Research design, data, and methods

We constructed a multi-step experimental design. We recruited almost 1,000 research participants and collected data on various issues related to the electoral support of young voters towards older candidates. The data collection process allowed us to run two separate experiments (Experiment 1 and Experiment 2) looking at this issue from different perspectives. The main goal of Experiment 1 was to understand young voter attitude towards older candidates in relation to their ideology. More specifically, we tested whether young voter support for older candidates increases if they are aware of the progressive policy platforms of these older candidates. The goal of Experiment 2 was to understand if the young voter's attitude changes when they are presented with candidates of different age and gender. We specifically tested whether young voters are more willing to support instead of the three older candidates an older female candidate, a younger male candidate or a younger female candidate.

Data collection

We recruited 938 research participants enrolled in first year courses at a constituent college of a university in one of the eastern states of Australia.⁶ The university is a comprehensive institution founded in the 1960s, with over 26,000 students drawn from the local area as well as interstate and internationally. We provide more information on the composition of the student sample below. Each student-participant was provided a paper-based questionnaire containing 11 different questions. These included questions about the research participant (year of birth, gender, family income, etc.)

and questions relating to one of six politicians whose color photo was included in the first page of the questionnaire. The six politicians included in the questionnaires were the three older candidates Jeremy Corbyn, Bernie Sanders and Hans-Christian Ströbele, as well as three additional candidates that we selected⁷ to vary in both age and gender from each other and from the three older candidates. We also compiled a list of general policy statements that summarizes some of the most relevant policy stances of each of the three older candidates. In selecting these policy statements, we deliberately tried to find stances that the three have in common, choosing to leave out more controversial positions that would have been completely impossible to reconcile between the three (e.g., Corbyn's and Ströbele's support for the PLO or Sanders' historic refusal to back gun control legislation). We also ascribed Jeremy Corbyn's policy stances to the older female, the younger male, and the younger female candidates, as we only used these candidates to control for gender and age.

We chose to use Australian research subjects to evaluate German, British and American politicians as we assumed it would be quite unlikely that Australian individuals were able to recognize the politicians in question and consequently be biased by their own prior knowledge of these individuals⁸. Choosing to collect data by using the photos of prominent politicians such as Corbyn or Sanders presented a clear risk that even our Australian respondents would be able to recognize some of our candidates. On the other hand, however, a significant body of literature demonstrates that there is a causal nexus between the facial features of successful politicians and their electoral success (e.g. Jäckle & Metz, 2017; Jäckle, Metz, Wenzelburger, & König, 2020; Rosar, Klein, & Beckers, 2008, 2012; Stockemer & Praino, 2017, 2019), and these features are virtually impossible to replicate using stock photos. Therefore, we chose to use photos of real politicians and we made sure that we knew with a high degree of certainty whether or not each respondent recognized the candidates they were evaluating by adding two distinct questions at the end of the questionnaire. The first (Q10) was the simple yes/no question 'did you recognize the person in the photo?' The second (Q11) was 'if you answered yes to the question above, please write down his/her name'. Among our research participants, 88.5 per cent of respondents stated that they were not able to recognize the politician

depicted in the photo they were given. Only 9.9 per cent of respondents were able to correctly name the candidate in the photo; of these, 62 per cent correctly named Bernie Sanders and 32 per cent correctly named Jeremy Corbyn. In summary, we know with certainty that the vast majority of respondents did not recognize any candidate and we control for the few people who recognized essentially only Corbyn or Sanders in the models we run.

Table 2 shows that over 95 per cent of our research participants were young voters. For this analysis, we define as ‘young’ all individuals born after 1980, that is, people who were under 40 years of age in 2019. This definition of young voter classifies as ‘young’ all millennials and the younger generations that came after millennials. This definition is consistent with recent research on young voters (e.g., Stockemer & Sundström, 2018). Our youngest research participant was 17 years old at the time of our data collection, while the oldest participant was 82 years old. For the purposes of this article, we only include in the analysis data collected from those we classified as ‘young’ research participants.

[Table 2 about here]

Among our young research participants, 65 per cent were females. The vast majority (65.6 per cent) declared to have Australian or Anglo-Saxon ancestry/ethnic background, followed by 15.7 per cent of participants declaring to be ‘other European’ and 13 per cent Asian. About 33 per cent of respondents declared to live in a household with yearly income higher than the Australian median of A\$90,000, while a little over 13 per cent come from a household with an annual income of less than A\$30,000.

Variables and operationalization

We used the data collected to compute several variables of interest. Our dependent variable is the *likelihood of vote* for a specific candidate expressed by our research participants. Respondents were asked how likely it is on a scale from 1 to 10, with 1 being the least likely and 10 being the most likely, that they would vote for the person in the picture.

We were also able to compute several independent variables that relate to each individual respondent. *Age* is a continuous variable coded as the age of each respondent at the time when the data was collected (April 2019). *Females* is a dichotomous variable coded 1 for female respondents and 0 otherwise. *Family income* is an ordinal variable coded 1 for respondents with annual household income of less than A\$10,000, 2 for respondents in households with annual income between A\$10,001 and A\$30,000, 3 for respondents living in a household with annual income between A\$30,001 and A\$60,000, 4 for respondents with annual household income between A\$60,001 and A\$90,000, and 5 for respondents whose annual household income is over A\$90,000. *Ideology* is an ordinal variable capturing the personal political ideology of respondents in a left-right continuum. It is coded -2 for respondents who self-identify with the left, -1 for respondents in the center-left, 0 for respondents who identify with the center, 1 for center-right respondents and 2 for respondents who self-identify with the right. Finally, we created a series of dichotomous variables *recognized candidate* for each of the six candidates, coded 1 for respondents who can correctly name the candidate whose photo is included in the questionnaire and coded 0 otherwise.

Experiment 1: young voters and left-wing policies

In our first experiment we distributed the questionnaires to our research participants, randomly dividing them into a treatment group and a control group. Participants in the treatment group were given a questionnaire that contained in the first page not only the color photo of a candidate, but also a summary of generic policy positions associated with that candidate. Participants in the control group were given only the photo of the candidate. We tried to obtain the same number of respondents for each candidate and a very similar number of participants in the treatment and control groups. Table 3 summarizes the total number of participants for each group.

[Table 3 about here]

We performed a series of two-sample t-tests comparing the answers to this question obtained in the treatment group and the results obtained in the control group. We then performed a multivariate

analysis by running a series of one-way ANCOVAs that controlled for the research participant's age, gender, family income, ideology and whether they recognized the candidate in the photo. We ran one overall ANCOVA with all candidates to test the overall design of the experiment, a separate ANCOVA for the three older candidates and the three other candidates and separate ANCOVAs for each candidate. Comparing the average support obtained by each candidate by research subjects in the treatment group and research subjects in the control group allows us to understand whether or not young voters are significantly more likely to support an older candidate if they know that the older candidate in question champions left-wing policies.

Experiment 2: young voters, older candidates, and younger candidates

In our second experiment, we randomly distributed the questionnaires to our research participants, and we used the older female candidate, the younger male candidate, and the younger female candidate to control for differences in young voter support across candidate age and gender.

We ran two different one-way ANOVAs testing for differences between groups. The first ANOVA assessed mean differences in vote likelihood between candidates for respondents who were only given the candidate photo. The second ANOVA did the same for respondents who were given both the candidate photo and the candidate policy stances. Comparing the average support given by young voters to the three older candidates with the support given to candidates of a different age group and/or gender allows us to understand if voters are significantly more or less likely to support an older candidate in relation to a younger candidate.

Results: experiment 1

We ran a series of independent two-sample t-tests comparing the means of our dependent variable *likelihood of vote* between the treatment group (that is, respondents who were provided both with the photo and the policy statement of candidates, or 'photo and policies' group) and the control group (in other words, respondents who were provided with only the candidate's photo, or 'photo only')

group). Figure 1 shows the results of the t-tests separately performed for all candidates, for the three older candidates only, and for all other candidates (that is, the older female, the younger male and the younger female). The t-tests suggest that young voters were significantly more likely to support candidates when they were aware of their progressive policy stances. This holds true for all candidates, the old male candidates, and the other candidates.

[Figure 1 about here]

Interestingly, the data in Figure 1 also seem to suggest that young voters tend to be less supportive of the older candidates than of the other candidates when they are only provided their photo, but more supportive of older candidates than of the other candidates when they are provided with a photo and short policy stances.

[Figure 2 about here]

Figure 2 shows the results of the two-sample t-tests comparing for each candidate the treatment group (photo and policy group) and the control group (photo only group). The results suggest that young voters are significantly more likely to support older candidates once they are aware of their progressive policy stances than when they only have access to their photo. Interestingly, Figure 2 also shows that when it comes to the other candidates, the differences in the mean dependent variable between the treatment groups and the control groups are smaller and less statistically significant. In the case of the younger female candidate, the difference in likelihood of voting between the group that had access to photo and policy stances and the group that had access to the candidate photo only is negligible and statistically non-significant.

[Table 4 about here]

Our multivariate analysis largely confirms what we found in the univariate analysis. Table 4 gathers the results of three separate one-way ANCOVAs of average vote likelihood comparing our treatment group (photos and policies group) and our control group (photos only group). The first ANCOVA shows the overall performance of experiment 1 by focusing on all candidates. The second ANCOVA is centered on the three older candidates, while the third is run with data relating to our 'other candidates.'

As is clear from Table 4, even controlling for age, gender, family income, personal ideology, and the fact that some research participants recognized some of the candidates, young voters are more likely to vote for a candidate whose progressive policy stances are known to them and clearly stated.

[Table 5 and Table 6 about here]

Tables 5 and 6 show the results comparing between the treatment and the control groups for each one of the six candidates that we have included in our data collection. Table 5 shows that young voters are significantly more likely to support Jeremy Corbyn, Bernie Sanders or Hans-Christian Ströbele once they know about their progressive policy stances, even controlling for age, gender, family income, ideology, and the fact that some research participants recognized some of the candidates. Interestingly, while the same is true for most of our other candidates, the ANCOVAs in Table 6 indicate that this relationship is weaker when it comes to the other candidates. In fact, young voters are not significantly more likely to support the younger female candidate once they learn about her progressive policy stances. They are significantly more likely to support the older woman and the younger man, but the magnitude of the difference is weaker than what we find for the three older candidates and the level of statistical significance is also lower.

Results: experiment 2

We ran two distinct one-way ANOVAs, focusing especially on the results of a Bonferroni multiple comparison test. We looked independently at the results associated with research participants who were in possession of only the photo of a candidate (Table 7) and of research participants who were given both a candidate photo and a description of the policies he or she supports (Table 8).

[Tables 7 and 8 about here]

Tables 7 and 8 gather the results of two Bonferroni multiple comparison tests. Given that we are interested in comparing the older candidates to the other candidates to control for gender and age, we only report the results of the relevant comparisons (i.e., we omit from the tables the comparisons

between the three older candidates and the comparisons between the three other candidates). Tables 7 and 8 show the mean difference in the levels of the dependent variable *likelihood of vote* between the candidate in each row and the candidate in each column.

Our one-way ANOVAs show that young voters express no difference in the likelihood of support based on the gender and on the age of the candidates. Research participants who are only in possession of a candidate photo are significantly less likely to support Hans-Christian Ströbele than they are to support our younger female candidate (see Table 7). Similarly, young voters in possession of both the candidate photo and the policy stances are significantly more likely to support Bernie Sanders than they are to support our younger male candidate (see Table 8). Other than that, no other differences in support are statistically relevant, which suggests that young voters have no problem in supporting older men.

Discussion and Conclusions

Our experiments show that young voter support for older candidates comes from a combination of ideological alignment around their distinctly left-wing policies and a lack of any preference towards younger candidates. Young voters are more likely to support both older and/or younger candidates once they know that these candidates champion left-wing policies. Interestingly, we also find that once voters learn about these policies, the largest and most statistically significant increase in support is registered in favor of the older candidates. The increase in support registered in favor of the young candidates is much smaller and even not statistically significant when it comes to the young female candidate. In addition, our experiments also show that young voters do not seem to display any sort of intergenerational bias towards older candidates or any kind of preference towards young candidates.

On the one hand, these findings provide some comfort in that they allow us to reconcile and explain the significant young voter support received by the likes of young leaders such as Jacinda Ardern and the equally strong support shown by young voters to much older figures such as Jeremy

Corbyn or Bernie Sanders. They also partially explain young voters snubbing young candidates such as Sebastian Kurz or even Emmanuel Macron in favor of much older left-leaning opponents. On the other hand, however, our experimental evidence is somewhat problematic when it comes to our expectations about descriptive representation and some emerging theories of age being used as a heuristic device (see Webster & Pierce, 2019).

While our analysis cannot exclude that young voters use candidate age as a heuristic device in contexts of low information, as argued by Webster and Pierce (2019), our experiments seem to point towards a slightly different set of conclusions. The fact that young voters are significantly more likely to support older candidates when they know that these older candidates champion the left-wing policies that young voters typically prefer is consistent with Webster and Pierce's (2019) model and further stresses differences in voter behavior due to different levels of information. Our analysis also shows, however, that when young voters are simply asked how likely they would be to support a candidate *without* being provided a choice between an older and a younger candidate, they do not prefer younger candidates over older candidates, as the existing literature suggests. In light of the findings by Pomante and Schraufnagel (2015), this could mean that young voters do not have a bias towards older candidates, as long as these older candidates are not running against a very young candidate. Future research should try to disentangle these issues by using observational and survey data, looking simultaneously at the age of voters and all candidates running for elections in multiple constituencies to shed further light on the political behavior of young voters.

When it comes to descriptive representation, while our findings suggest that young voters are not particularly interested in being represented by young candidates, it also shows however that they do respond to policy preferences. In other words, they are quite interested in substantive representation. This creates several issues that future researchers should focus on, especially the fact that a lot of empirical works show that descriptive representation leads to substantive representation. Borrowing Mansbridge's (1999) language, if blacks should represent blacks and women should represent women, then the young should also represent the young. If, as social Identity Theory strongly

suggests, individuals prefer candidates of their same age-group (see Ben-Bassat & Dahan, 2012; Cary et al., 2013; Hogg, 2001) but young voters do not support young candidates, then young individuals will have problems getting elected. This can have a tremendous impact on substantive representation of the young that, in turn, can further reduce the level of participation of young voters. Stockemer and Sundström (2018) call this phenomenon ‘the vicious cycle of political alienation of the young’. Future works should try to replicate our design using young candidates and old voters in order to understand if older voters show a bias in favour of older candidates and/or against younger candidates. Should that be the case, Stockemer and Sunström’s (2018) ‘vicious cycle’ would appear even more vicious and harder to break.

The major limit of our work presented here is the fact that it only tells one side of the story of the relationship between political representation, age, and ideology. In fact, by designing our experiment around largely left-leaning young voters and left-leaning older candidates, the conclusions we can draw are obviously limited. Future research should expand the scope of the work we presented here by designing a much larger experiment that includes (1) voters belong to a more varied ideological affiliation, (2) older voters, and (3) right-wing older candidates. While this is all beyond the scope of the research presented here, together with our study this would enhance even further our understanding of the political behavior of young voters towards older candidates.

Our findings are important and have significant implications for both the practice of politics and for its analysis. They show that young voters are particularly strongly moved by policy issues (see Norris, 2004). This could have profound implications for real-world politics, in terms of the kind of issues that will be contested, the language in which these issues are framed, and the choice of electoral strategies that are deployed. In fact, even though young voters are often described as disengaged and disinterested in conventional political participation, they are known to be able to mobilize in remarkable, non-conventional ways (see Blais & Loewen, 2011; LaCombe & Juelich, 2019). In terms of the practice of politics, this means that political parties should consider the age of candidates running for office in conjunction with the age makeup of electoral districts. In terms of analysis, scholars should

investigate some of the underlying assumptions about political behavior and representation. The descriptive representation of young voters, their substantive representation, and their willingness to trade off one in favor of the other is a behavioral trait that should be explored in much more detail – not least because this behavioral trait has potentially profound implications to the political representation and participation of the young.

Table 1. Bernie Sanders; Jeremy Corbyn; Hans-Christian Ströbele; basic information

Personal Details							Policy Positions					
Name	Gender	Age	Nationality	Status	Party	Milieu	Economy	Social Movements and Identity Politics	Military Engagement	Humanitarian Intervention	Intelligence Services	
Bernie Sanders	M	78	American	Mayor of Burlington VT 1981 – 1990; Representative 1990-2006; Senator 2006-	Ind.	Mixed (Vermont – at-large Congressional District).	Left; Statist (by US standards); pro-Labour rights; Environment	LGBT rights; Civil Rights; Anti Death Penalty; Cuba	Selective (pro-veterans ; critical of US actions)	Pragmatic but draws on the Holocaust example (after Joshka Fischer); increase funding for foreign aid	Critical (Voted against USA Patriot Act; NSA is ‘out of control’)	
Jeremy Corbyn	M	70	British	Former Trade Union official MP since 1983 and Party Leader 2016 - 2020	Labour Party	Urban; Multi-Cultural; Post-materialist (London)	Left; Statist; History of voting against EU Treaties; Public Ownership	LGBT rights; Peace Movement; Palestine; Ireland	Opposed (Iraq 1 and 2; Kosovo; ISAF; Lebanon)	Highly selective (pro UN Peacekeeping in East Timor in 1999 but generally skeptical)	Selective (pledged ‘People’s Charter of Digital Liberties’ but supported the UK Investigatory Powers Act of 2016).	
Hans-Christian Ströbele	M	80	German	Former Lawyer; MP from 1985-7 and 1998 to 2017	Greens	Urban; Multi-Cultural; Post-materialist (Berlin)	Left; Statist; Opposed to Eurozone stability pact; FOIs on Deutsche Bahn and Financial markets; Environment	LGBT rights; Peace Movement; Palestine; Squatters	Opposed (‘Britain has not fought a just war since 1945’)	Selective (pro UN Peacekeeping in Dafur/Sudan 2010/11/12/13/14/15; South Sudan (2011/12/13) etc. but opposed Somalia (2009/10/11//12/13/14/15/16) and Mali (2013/14/15).	Critical (member of Bundestag Parliamentary Oversight Panel (1998-2017).	

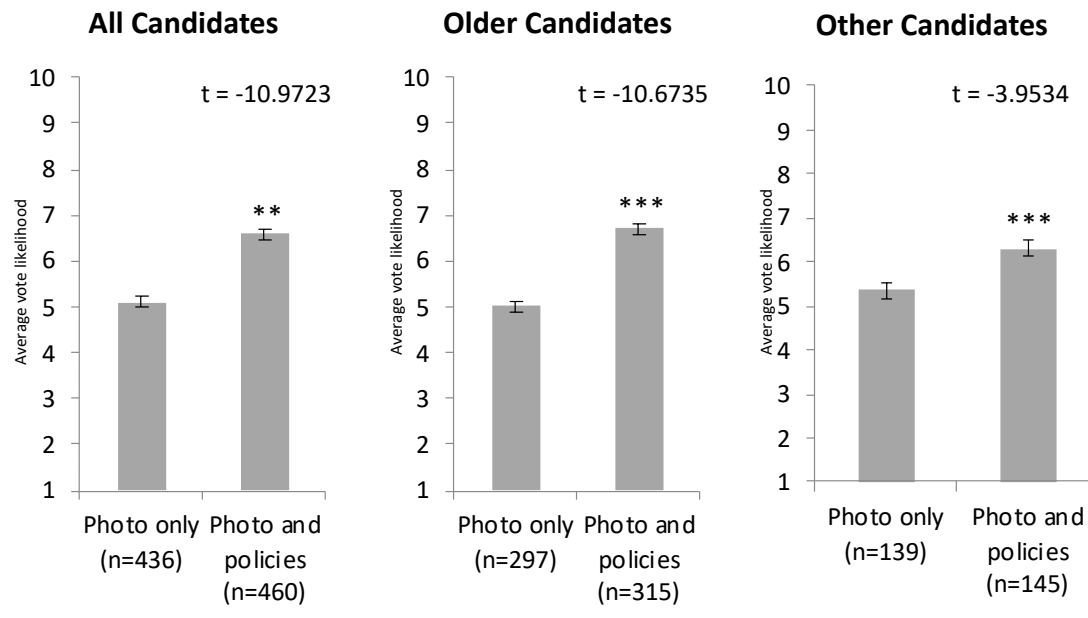
Table 2: Research participants recruited by generation group

Age of participant	Number of participants	Percentage of total participants
Under 40	889	95.69%
40-54	36	3.88%
55-74	3	0.32%
Over 74	1	0.11%
TOTAL	929	100%

Table 3: Number of research participants per candidate and treatment/control group

	Total Participants	Treatment group	Control group
Bernie Sanders	239	116	123
Jeremy Corbyn	229	124	105
Hans-Christian Ströbele	171	89	82
Older female	107	50	57
Younger male	119	69	50
Younger female	73	39	34
TOTAL	938	487	451

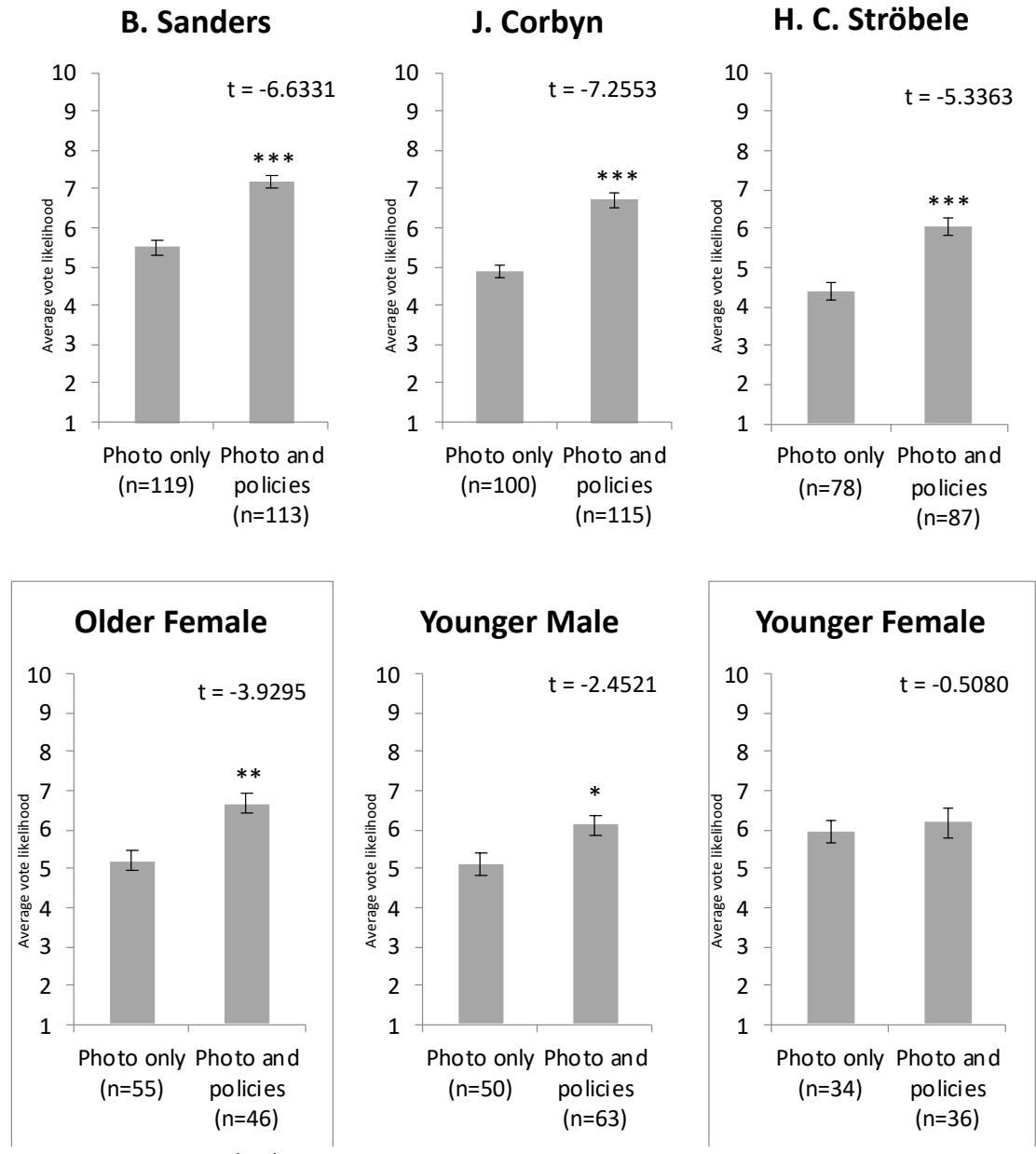
Figure 1: Results of t-test of average vote likelihood comparing “photo only” group and “photo and policies” group for all candidates, older candidates and other candidates



Bars represent standard error

* $p < .05$ ** $p < .01$ *** $p < .001$

Figure 2: Results of t-test of average vote likelihood comparing “photo only” group and “photo and policies” group for each candidate



Bars represent standard error
 * p < .05 ** p < .01 *** p < .001

Table 4: One-way ANCOVA of average vote likelihood comparing “photo only” group and “photo and policies” group for all candidates, older candidates, and other candidates

	All Candidates			Older Candidates			Other Candidates		
	Part s. s.	M. s.	F	Part s. s.	M. s.	F	Part s. s.	M. s.	F
<i>Factor</i> Policies provided	405.9	122.5	113.5***	376.7	376.7	108.4***	50.3		13.5**
<i>Controls</i> Age	2.1	2.1	0.6	0.4	0.4	0.1	2.2	2.2	0.6
Females	59.0	59.0	16.5**	41.8	41.8	12**	14.0	14.0	3.7
Family income	0.0	0.0	0.0	0.5	0.5	0.1	0.4	0.4	0.1
Ideology	86.9	86.9	24.3***	45.7	45.7	13.1**	46.3	46.3	12.4**
Recognized Candidate	138.9	138.9	38.8***	143.5	143.5	41.3***	0		
Residual	2639	3.6		1730	3.5		875	3.7	
n		745			505			240	
Adjusted R²		.22			.26			.14	

* p < .05 ** p < .01 *** p < .001

Table 5: One-way ANCOVA of average vote likelihood comparing “photo only” group and “photo and policies” group for each of the three older candidates

	Bernie Sanders			Jeremy Corbyn			Hans-Christian Ströbele		
	Part s. s.	M. s.	F	Part s. s.	M. s.	F	Part s. s.	M. s.	F
<i>Factor</i> Policies provided	124.7	124.7	42.4***	135.1	135.1	42.90***	103.2	103.2	25.0***
<i>Controls</i> Age	0.4	0.4	0.1	0.0	0.0	.0	4.8	4.8	1.2
Females	25.8	25.8	8.8**	1.2	1.2	.39	5.6	5.6	1.4
Family income	2.8	2.8	0.9	2.4	2.4	.77	3.4	3.4	0.8
Ideology	24.0	24.0	8.1**	23.2	23.2	7.37**	2.9	2.9	0.7
Recognized Candidate	97.1	97.1	33.0***	3.1	3.1	1.00	0		
Residual	526	2.9		554	3.1		535	4.1	
n		186			183			136	
Adjusted R²		.35			.21			.16	

* p < .05 ** p < .01 *** p < .001

Table 6: One-way ANCOVA of average vote likelihood comparing “photo only” group and “photo and policies” group for each of the other candidates

	Older Woman			Younger Man			Younger Woman		
	Part s. s.	M. s.	F	Part s. s.	M. s.	F	Part s. s.	M. s.	F
<i>Factor</i> Policies provided	13.9	13.9	5.0*	35.7		8.6**	0.2		0.1
<i>Controls</i> Age	7.7	7.7	2.8	1.0		0.2	2.1		0.5
Females	16.4	16.4	5.9*	7.2		1.7	0.6		0.1
Family income	0.3	0.3	0.1	0.6		0.1	0.1		0.0
Ideology	3.4	3.4	1.2	42.4		10.3**	3.3		0.8
Recognized Candidate	0			0			0		
Residual	209	2.8		379	4.1		238	4.4	
n		82			98			60	
Adjusted R²		.30			.18			.05	

* p < .05 ** p < .01 *** p < .001

Table 7: One-way ANOVA of average vote likelihood, photo only group

	Older Woman	Younger Man	Younger Woman
Bernie Sanders	.364 (.319)	.444 (.329)	-.377 (.380)
Jeremy Corbyn	-.331 (.328)	-.251 (.338)	-1.072 (.387)
Hans-Christian Ströbele	-.845 (.345)	-.765 (.355)	-1.586** (.402)

* $p < .05$ ** $p < .01$ *** $p < .001$

Standard errors in parenthesis, Bonferroni multiple comparison test

Table 8: One-way ANOVA of average vote likelihood, photo and policies group

	Older Woman	Younger Man	Younger Woman
Bernie Sanders	.496 (.347)	1.096** (.310)	1.013 (.377)
Jeremy Corbyn	-.018 (.346)	.582 (.309)	.499 (.376)
Hans-Christian Ströbele	-.654 (.361)	-.054 (.325)	-.137 (.389)

* p < .05 ** p < .01 *** p < .001

Standard errors in parenthesis, Bonferroni multiple comparison test

Appendix 1: the questionnaire

Complete list of questions:

- Q1: On a scale from 1 to 10, with 1 being the least likely and 10 being the most likely, how likely would you be to vote for the person above at an election? (please circle one)
- Q2: In what year were you born?
- Q3: What is your gender? (please circle one)
- Q4: What is your personal ancestry/ethnic background?
- Q5: What is your family's approximate yearly household income? (please circle one)
- Q6: How would you best describe your personal political positions? (please circle one)
- Q7: On a scale from 1 to 10, with 1 being "not very similar" and 10 being "very similar", how similar do you think your personal political positions are to the political positions of the person in the photo? (please circle one)
- Q8: On a scale from 1 to 10, with 1 being "not very competent" and 10 being "extremely competent", how competent do you think the person in the photo is? (please circle one)
- Q9: On a scale from 1 to 10, with 1 being "not very trustworthy" and 10 being "extremely trustworthy", how trustworthy do you think the person in the photo is? (please circle one)
- Q10: Did you recognize the person in the photo? (please circle one)
- Q11: If you answered yes to the question above, please write down his/her name:

Policy positions by candidate:

Bernie Sanders	Jeremy Corbyn	Hans-Christian Ströbele	Older female / Younger male / Younger female
1. I am in favor of protecting the environment; 2. I support the rights of workers; 3. I am against the death penalty; 4. I support LGBT rights; 5. I am against the interference of religion in government affairs; 6. I am critical of the military engagement abroad of developed countries; 7. I support war veterans who fight for my country abroad even when I am critical of the military intervention itself; 8. I support some peacekeeping operations on	1. I am in favor of protecting the environment; 2. I support the rights of workers; 3. I am skeptical about international organizations such as the European Union; 4. I support the renationalization of certain companies that have been privatized in the past; 5. I support LGBT rights; 6. I am against the interference of religion in government affairs; 7. I oppose the military engagement abroad of developed countries; 8. I support some peacekeeping	1. I am very passionate about protecting the environment; 2. I support the rights of workers; 3. I am skeptical about international organizations such as the European Union; 4. I fight against government secrecy, and I believe in freedom of information; 5. I support LGBT rights; 6. I am strongly against the interference of religion in government affairs; 7. I strongly oppose the military engagement abroad of developed countries 8. I support some peacekeeping operations on grounds of	1. I am in favor of protecting the environment; 2. I support the rights of workers; 3. I am skeptical about international organizations such as the European Union; 4. I support the renationalization of certain companies that have been privatized in the past; 5. I support LGBT rights; 6. I am against the interference of religion in government affairs; 7. I oppose the military engagement abroad of developed countries; 8. I support some peacekeeping operations on grounds of humanitarian

<p>grounds of humanitarian intervention, and I am in favor of increasing funds for foreign aid; 9. I am critical of intelligence services.</p>	<p>operations on grounds of humanitarian intervention, but I am generally skeptical about them; 9. I am critical of intelligence services, although I think that some of their work is necessary.</p>	<p>humanitarian intervention; 9. I am very critical of intelligence services.</p>	<p>intervention, but I am generally skeptical about them; 9. I am critical of intelligence services, although I think that some of their work is necessary.</p>
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Treatment group questionnaires:

The treatment group questionnaires consist of 12 individual cards, each for a different participant. Each card includes a small portrait of the participant, a list of 10 statements, and a Likert scale from 1 to 7. The statements are:

- I support the right of peoples to self-determination.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.

 The Likert scale is labeled 'Strongly disagree' at 1 and 'Strongly agree' at 7.

Control group questionnaires:

The control group questionnaires consist of 12 individual cards, each for a different participant. Each card includes a small portrait of the participant, a list of 10 statements, and a Likert scale from 1 to 7. The statements are:

- I support the right of peoples to self-determination.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.
- I support the right of peoples to a fair and just international order.

 The Likert scale is labeled 'Strongly disagree' at 1 and 'Strongly agree' at 7.

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¹ These are Captain Regent of San Marino Alessandro Cardelli (29), Chancellor of Austria Sebastian Kurz (34), Prime Minister of Finland Sanna Marin (34), Supreme Leader of North Korea Kim Jong-un (37), and President of El Salvador Nayib Bukele (39).

² There are no exit polls in New Zealand and most post-election analysis tends to focus on ethnic- and gender - based patterns voting behaviour. However, the Roy Morgan polling organisation breaks respondents down into two broad categories of 18-49 and 50+. Recent polling suggests that, although New Zealand Labour now trails the right-of-centre National in the polls overall (at 33.5 per cent and 37.5 per cent respectively), support among the 18-49 group remains higher than overall. However, this skew is not as significant as that found for gender, where 39.5 per cent of female respondents continue to report support for Labour, compared with 26.5 per cent for male respondents. (<http://www.roymorgan.com/findings/8962-nz-national-voting-intention-april-2022-202204080325>).

³ Research into young people's political preferences in Austria indicates that voters under 30 in general - and the very youngest cohort in particular - tend to split between support for parties of the left and the right, with proportionately less support for more centrist parties than is found in older generations of voters (Aichholzer and Kritzinger, 2020). This observation is borne out by the disproportionate degree of support amongst younger voters for the Greens, with 28 per cent of under-30s supporting the Greens compared with 14 per cent of voters overall (Prager, 2019).

⁴ Part of this difference relates to the ongoing and yet largely unresolved debate about the difference and even ability to discern between age, period, and cohort effects (see Fosse & Winship, 2019 for a recent and comprehensive review of this literature).

⁵ There are a few other good examples of older left-wing politicians supported by large number of young voters, including, for instance, Jean-Luc Mélenchon, but we believe that Corbyn, Sanders and Ströbele at age 70, 78 and 80 respectively in 2019 are good examples in terms of age difference for our experimental study.

⁶ This experiment was not pre-registered but was approved through the university's formal research ethics approval process (Ref. 6816 Feb. 2019. Research project on 'Physical Appearance, Policy Outcomes and Electoral Success'; PI Dr. R. Praino).

⁷ We refer to these candidates as 'older female', 'younger male' and 'younger female'. In order to avoid selecting photos of candidates whose physical appearance may bias our research participants against them (see Berggren, Jordahl, & Poutvaara, 2017; Praino & Stockemer, 2019), we chose three candidates to the 2008 U.S. House of Representative elections who according to Praino, Stockemer, and Ratis (2014) are ranked highly both in terms of physical attractiveness and perceived competence by most voters.

⁸ While using a sample of college-attending, wealthier-than-average, Australian students to make inferences on young voters across the globe may seem problematic, This technique is widely used and accepted in the extant literature (e.g., Lawson, Lenz, Baker, & Myers, 2010; Stockemer & Praino, 2015). Praino et al. (2014) go as far as testing the difference in responses between a sample of college-attending, wealthier-than-average Canadian students and a much more representative sample of the US population at large and find that the responses were virtually identical.