**Affective Polarization among Educational Groups and the Influence of Exposure to the**

**Educational Gradient of Ethnocentrism: A Study in the UK context.**

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Master's Thesis

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**Abstract**

This research explores the relationship between affective polarization and educational group membership, with a focus on the influence of exposure to research emphasizing educational differences regarding ethnocentrism. The study contributes to the existing literature by exploring how educational group membership shapes social identity and attitudes towards others. It offers a unique contribution by analyzing the impact of research output highlighting educational differences. A survey experiment (N = 1314) measured warmth towards participants' educational ingroup and outgroup. The experimental group was exposed to research on educational differences and ethnocentrism to assess its effect on affective polarization. The findings indicate that both more and less educated individuals exhibit affective polarization towards their educational outgroup. Furthermore, exposure to research on educational differences amplifies affective polarization for both educational groups. These results emphasize the role of educational disparities in shaping social identity and stress the need for cautious presentation of research findings on educational differences to mitigate further polarization.

*Keywords:* affective polarization, education, ethnocentrism

**Affective Polarization among Educational Groups and the Influence of Exposure to the**

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Modern societies have recognized the crucial role of education and its impact on various dimensions of social life. Scholars such as Baker and LeTendre (2005), Brint (2017), and Meyer (1977) have highlighted the increasing emphasis placed on education in contemporary societies. Education also has the potential to shape broader social structures, such as politics, knowledge production, and social status (Baker & LeTendre 2005; Brint 2017; Meyer 1977). The influence of education also extends beyond its direct outcomes, permeating other domains of society and creating a sense of connectedness among individuals who share similar educational achievements (Davies & Mehta 2018: 84). Scholars started to investigate whether the increased focus on educational groups can lead to potential conflicts between them (Stubager, 2009).

Social Psychology research has shown that the mere perception of group membership can result in negative sentiments towards potential outgroups (Billig & Tajfel, 1973). A measure of this possible negative sentiment is affective polarization, which highlights the emotional divide between groups (Iyengar & Westwood, 2015, p. 691). As educational differences become bigger, and society increasingly focuses on education, it is important to study the potential negative consequences of making educational group membership this pronounced. Furthermore, as the importance of education increased in society, so did the interest in studying educational differences in social science research (See, for example, Meloen & Farnen, 2000; Nie et al., 1996; Putnam, 2000; Deboosere et al., 2009; Gesthuizen & Wolbers, 2010; Kalmijn & Kraaykamp, 2007; Stubager, 2010; Van Eijck & Bargeman, 2004; Fraser 2003; Spruyt et al., 2018; Lamont, 2018; Ridgeway, 2014; Van Noord et al., 2021). A finding that was especially pronounced in social science research was the

educational differences in ethnocentrism (Hsu & Nien, 2008; Meeusen et al., 2013; Hooghe, 2008; Plant, 1958).

It now becomes interesting to investigate what impact it can have on people to be continuously exposed to research output about educational differences, especially when it relates to such a polarizing topic as ethnocentrism. Reading research output about political differences is theorized to influence affective polarization through two mechanisms: increased salience of group membership (Oakes, 1987; Gaertner et al., 1993; Iyengar et al., 2012) and the combination of educational group membership with political attitudes (therefore, emphasizing how different educational groups are from each other) (Harteveld, 2021).

Therefore, the primary aim of this study is to investigate the presence of affective polarization in relation to educational group membership and explore how reading research output emphasizing educational differences can influence this relationship.

This research can add to the existing literature by helping to understand how educational differences shape individuals' social identity and their attitudes towards others as previous research has been divided on this question. Some authors argue for the emergence of education-based group-consciousness and therefore foresee potential group conflicts (see, for example, Stubager, 2009; Dekker & Van der Meer, 2009; Tannock, 2008; Houtman et al., 2011; Spruyt & Kuppens, 2015) while others have argued against education-based group consciousness and point out the non-confrontative nature of educational difference (see, for example, Kingston et al., 2003; Bordieu, 1984; Meyer, 1977).

Furthermore, this research is a unique contribution since it investigates the influence of reading research about educational differences regarding ethnocentrism. As a researcher, it is critical to think about how our work might affect society. It is important to understand how academic research can perpetuate stereotypes and biases that can further marginalize certain groups in society. Furthermore, this research can contribute to the identification of potential

solutions or strategies to mitigate the negative effects of social inequality based on educational differences by investigating the mechanisms that drive them.

Regarding the findings of this study, I found that both citizens with and without a university degree showed affective polarization towards their educational outgroup. Furthermore, I found that citizens for both educational groups showed more affective polarization when they were exposed to research output highlighting educational differences regarding ethnocentrism.

### Theoretical framework

Numerous studies have consistently found substantial differences in political behavior and citizen opinions based on educational attainment. These differences manifest in various ways, including political participation, political ideology, voting patterns, and policy preferences (Meloen & Farnen, 2000; Nie et al., 1996; Putnam, 2000; Deboosere et al., 2009; Gesthuizen & Wolbers, 2010; Kalmijn & Kraaykamp, 2007; Stubager, 2010; Van Eijck & Bargeman, 2004; Fraser, 2003; Spruyt et al., 2018; Farnen & Meloen, 2000). A finding that was especially pronounced in social science research was the educational differences in ethnocentrism, suggesting that less educated citizens are more likely to be ethnocentric (Hsu & Nien, 2008; Meeusen et al., 2013; Hooghe, 2008; Plant, 1958).

Moreover, education has been found to shape group-based values and norms, contributing to the development of social identity. Lamont et al. (2018), Ridgeway (2014), and Van Noord et al. (2021) argue that persistent educational differences can lead individuals to align themselves with specific educational groups, forming a sense of belonging and shared identity. These findings raise the question of whether education is increasingly becoming the basis for group-based behavior and thinking (Bovens & Wille, 2012; 2010; Dekker & Van der Meer, 2009; Stubager, 2008; Tannock, 2008). The potential emergence of education-based group consciousness has important implications for social dynamics and potential conflicts.

Stubager (2009) argues that the observed differences based on educational attainment may lead to educational conflict, as individuals with different educational backgrounds may hold divergent views, priorities, and interests. The formation of educational groups and the potential clashes between them highlight the need for further investigation into the relationship between education and social identities.

**Social categorization**

The social categorization approach provides insights into the dynamics of group memberships and their implications in real-life situations. In social science research, the conceptualization of social categorization has regularly been confined to cases in which group members identify very strongly with their group (Centers, 1948, p. 27). According to Centers (1948, p. 27), these group identities are regarded as (1) permanently salient; (2) acquired at a young age; and (3) relatively constant throughout one's life. Educational group membership has all three characteristics: it is salient through testing and gatekeeping at the job market (Domina et al. 2017; Kingston et al. 2003), it starts early in life in education systems with early stratification (Brunello & Checchi, 2006), and is reinforced throughout our lives (Kingston et al., 2003; Bennett et al., 2009; Bourdieu 1984; Stubager 2009; Hout & DiPrete, 2006) with restricted social versatility (Bourdieu, 1984).

According to Tajfel and Turner (1979), group memberships can then lead to the formation of social identities, characterized by positive feelings towards one's own group and negative sentiments towards opposing groups. Social psychology experiments have demonstrated this phenomenon, eliciting strong positive emotions towards the in-group and negative emotions towards the out-group (Billig & Tajfel, 1973). The realistic group conflict model (Jackson, 1993) further suggests that groups with conflicting objectives and interests are likely to develop hostile perspectives towards each other. This conceptualization of social identities also underlies societal cleavages (Bartolini & Mair, 1990).

Perceived group-memberships have tangible consequences, as evidenced by research on education-based group identity. More-educated individuals tend to perceive less-educated individuals as morally and culturally inferior, dismissing their social inclinations as irrational (Van der Waal et al., 2017; Schoo, 2008). Similarly, the less-educated often hold disdain for the preferences of highly educated individuals (Honest, 2004; Schoo, 2008), indicating clear hostility towards educational out-groups. Therefore, it becomes very important to investigate whether there is a perception of group-membership regarding educational differences and what possible consequences could be.

**Affective Polarization**

Affective polarization, which refers to the emotional divide between individuals belonging to different political parties or groups, provides valuable insights into the negative outcomes associated with education-based group identification (Iyengar et al., 2012). Building upon the work of Tajfel (1970) and Tajfel and Turner (1979), social identity theory suggests that individuals experience positive emotions towards their own group while harboring negative sentiments towards those who identify with opposing groups. Affective polarization explores these evaluations by examining the degree of warmth individuals feel towards members of their ingroup versus members of the outgroup (Iyengar & Westwood, 2014). This measure allows us to go beyond general likes or dislikes and examine the distinct emotional responses and social repercussions associated with negative attitudes influenced by the dimension of "warmth" (Fiske et al., 2002; Phalet & Poppe, 1997). It can reveal how education-based group identities could impact emotions, attitudes, and interactions.

Spruyt and Kuppens (2015) found that individuals with lower education levels perceive those with higher education as less warm, supporting the notion that affective polarization can provide insights into the adverse effects of education-based group identification. Jackman and Muha (1984) caution against interpreting these findings as

evidence that education automatically fosters broad tolerance, suggesting that ideological refinement may play a role instead. They argue that dominant groups must strike a delicate balance between cooperating with the dominated and differentiating themselves from them. Therefore, it is important to examine the potential hostile attitudes of highly educated individuals towards those with lower education levels in various settings.

Therefore, I expect that both educational groups will perceive their educational outgroup as less warm, showing affective polarization.

**Hypothesis 1a:** More educated citizens will feel less warm towards less educated citizens compared to more educated citizens.

**Hypothesis 1b**: Less educated citizens will feel less warm towards more educated citizens compared to less educated citizens.

Furthermore, understanding the boundary conditions and specific circumstances that contribute to affective polarization is essential for gaining a comprehensive understanding of this phenomenon. Affective polarization is influenced by various factors, and one significant aspect to consider is exposure to research. Social science research often emphasizes educational differences in political attitudes, with one prominent example being educational differences regarding ethnocentrism. Exploring how exposure to these differences affects affective polarization is important.

**Affective Polarization and Research Output about Political Differences**

Affective polarization is a universal phenomenon, but its intensity varies across different contexts, indicating that it thrives under specific circumstances (Reiljan, 2019). It is important to understand and examine these circumstances. This paper will focus on one of the possible circumstances that can increase affective polarization: Reading research about educational differences regarding ethnocentrism. This is theorized to increase affective

polarization through two mechanisms: a) the increased salience of education-based group membership b) the entanglement of educational groups with political attitudes.

Regarding the first mechanism, exposure to research output that focuses on educational differences plays a vital role in making group membership more salient. By highlighting educational differences in political science research, attention is drawn to the divisions between different educational groups. When individuals belong to multiple groups, understanding the hierarchy of their group affiliations becomes essential in determining which affiliations hold more significant cues (Turner et al., 1989; Gaertner et al., 1993). Social identity theorists have found that intergroup prejudice originates from identity salience, as evidenced by studies conducted by Turner et al. (1989) and Gaertner et al. (1993). Therefore, the more salient a particular affiliation is, the more likely individuals are to exhibit feelings of ingroup favoritism and outgroup animosity, contributing to the phenomenon of affective polarization (Turner et al., 1989; Gaertner et al. 1993). Consequently, when research highlights educational differences, affective polarization could be intensified due to increased group-membership salience (Iyengar et al., 2012).

The second mechanism contributing to an increase in affective polarization involves showing that these group memberships have differing political attitudes. It is important to recognize that affective polarization is not solely influenced by social division but can also intersect with ideological divisions, exacerbating its intensity (Harteveld, 2021). Social identities play a crucial role in this context, particularly in how they relate to other social identities (Tajfel & Turner, 1979). Mason (2015; 2016; 2018) argues that when individuals who share social identities, such as educational background, also share political identities, they tend to be less tolerant towards those with divergent views. Therefore, overlapping social identities can diminish tolerance (Roccas & Brewers, 2002). This is due to the fact that

ingroups and outgroups become highly distinct and internally homogeneous, which fosters negative attitudes towards the outgroup (Harteveld, 2021).

In summary, reading research that highlights educational differences regarding ethnocentrism is expected to lead to an increase in affective polarization as it makes educational group membership salient and shows that these group memberships are associated with opposing political attitudes.

In the context of this study, the focus will specifically be on research output regarding ethnocentrism as this is expected to elicit a specifically strong response in citizens from both educational groups.

### *Ethnocentrism and Education*

Research consistently suggests that less-educated citizens tend to exhibit higher levels of ethnocentrism compared to their more-educated counterparts in liberal democracies on both sides of the Atlantic (Hsu & Nien, 2008; Meeusen et al., 2013; Hooghe, 2008; Plant, 1958). The association between education and ethnocentrism is particularly relevant in contemporary liberal democracies, where being cosmopolitan (and therefore, open to different cultures) has become a symbol of status among the more-educated segment of society (Prieur & Savage, 2013; Savage et al., 2010; Bryson, 1996; Ollivier, 2008). There is evidence to suggest that less-educated citizens may face social disapproval for their perceived lack of cosmopolitanism (Schoo, 2008; Sommer, 2017; Van der Waal, De Koster, & Van Noord, 2017).

Moreover, the highbrow cultural preferences associated with higher education can contribute to cultural distance and accentuate educational differences (Gelman, 2009; Spruyt & Kuppens, 2015). Therefore, presenting the citizens with research findings on the ethnocentric tendencies of less educated citizens highlights a division surrounding a politically sensitive topic. Such exposure is likely to increase salience of group identity while

also revealing contrasting perspectives, ultimately leading to an increase in affective polarization.

**Hypothesis 2a**: More educated citizens exposed to research on educational differences related to ethnocentrism will feel less warmth towards less educated citizens compared to those not exposed to the research.

**Hypothesis 2b:** Less educated citizens exposed to research on educational differences related to ethnocentrism will feel less warmth towards more educated citizens compared to those not exposed to the research.

## Methodology

**Variables**

*Education*

In order to operationalize varying levels of education, I defined "less education" as individuals without a university degree and "more education" as those with a university degree. This is due to previous research showing that the distinction between educational groups is most prominent when looking at university degrees (see, for example, Noordzij et al., 2021).

To ensure consistency and accuracy in my classification, I employed the International Standard Classification of Education (ISCED) framework (2011 edition). Specifically, participants with a university degree were categorized within levels 6 to 7 of ISCED, while individuals without a university degree were represented by all levels below 6.

*Affective Polarization*

Affective polarization was operationalized via a feeling thermometer (Lelkes and Westwood 2017, 489). The feeling thermometer is a validated measure of affective polarization capturing feelings towards groups and was shown to correlate with other

measures of affective polarization (Gidron et al., 2022). With this measure participants indicated how warm they feel toward citizens with a university degree and towards citizens without a university degree. I randomly allocated the question order for each participant to ensure that the question order does not influence the result. The questions were asked the following way:

How do you feel toward citizens **without** a university degree

0 ("cold and negative"), 50 ("neither warm nor cold"), to 100 ("positive and warm")

How do you feel toward citizens **with** a university degree

0 ("cold and negative"), 50 ("neither warm nor cold"), to 100 ("positive and warm")

### *Experimental Condition: Research Output*

The participants in this study were randomly assigned to either the experimental group or the control group. The experimental group was exposed to data derived from the most recent European Social Survey (2020) regarding the association between education and ethnocentrism.

To assess ethnocentrism, participants from the ESS were asked to rate their agreement with the statement "do immigrants make the country a better or worse place to live" on a scale ranging from 0 (indicating a worse place) to 10 (indicating a better place). I subsequently divided the dataset into two separate datasets: one for participants with a university degree (above the variable ISCED 6) and another for participants without a university degree (below the variable ISCED 6). In each dataset, the percentage of participants who rated immigrants as making the country a worse place to live (scores below 5) was calculated.

My analysis of the European Social Survey (2020) data revealed that a higher percentage of participants without a university degree (24.4%) indicated that immigrants make the country a worse place to live, compared to participants with a university degree (6.2%). A graph was created to visually depict this relationship, accompanied by an explanation highlighting the alignment with previous research. The treatment looked as follows:

**Citizens without a university degree are more likely to be ethnocentric**

In a recent representative sample of British citizens, respondents answered the following question:

**"Do you think immigrants make the country a worse or better place to live?".**

Citizens without a university degree were more likely to state that immigrants make the country a worse place to live. This is depicted in the graph below.

This aligns with many research findings from the 1970s onwards: individuals with less education report higher levels of ethnocentrism.

**Percentage of citizens that stated that immigrants make the country a worse place to live**
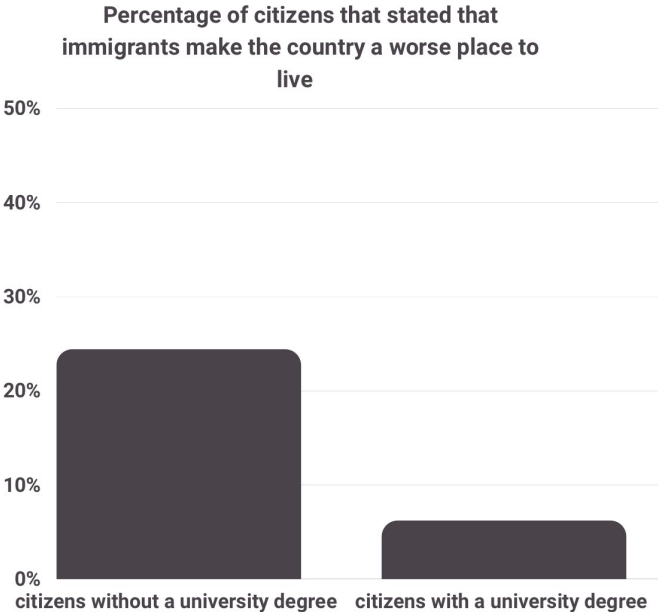
The control group was not presented with any research output concerning the attitudes of individuals with lower levels of education. Instead, they were thanked for their participation and informed that they would now have to answer questions about their feelings towards citizens in society.

### Demographics

Upon survey completion, participants were asked about their age, gender, educational attainment, their parents' educational attainment, and their political orientation. This step was undertaken to accurately depict the demographic profile of the participants and ensure that the sample was representative of the British population for citizens with and without a university degree. Subsequently, the demographic data of participants was securely removed from the dataset following the analysis.

## Participants

For the purpose of this study, I employed a paid online survey via the platform *Prolific*. I chose to focus on a British sample because of availability and because it represents a typical western democracy. My aim was to create two representative samples: one for British citizens with a university degree, and one for British citizens without a university degree. My goal was to achieve representativeness based on age, political orientation and gender via the pre-screening option. Therefore, the first sample was representative of the British population with a university degree including age ($M_{age}$ = 48.3256, $SD_{age}$ = 15.00534, range =20; 88) (European Social Survey, 2020), political orientation (37.4% left-wing, 48.1% centrist, and 14.5% right wing) (European social survey, 2020), and an equal distribution between male and female (50.6% female) (European social survey, 2020). The educational background consisted of 63% undergraduate degree, 21.1% graduate degree, 9.3% post-graduate, and 4.8% doctor's degree.

The second sample was representative of the British population without a university degree including age ($M_{age}$ = 54.11, $SD_{age}$ = 14.80, range = 18; 89) (European Social Survey, 2020), political orientation (17% left-wing, 60% centrist, and 23% right-wing) (European social survey, 2020), and an equal distribution between male and female (49.4% female) (European social survey, 2020). For this sample the educational background consisted of 3.45% No formal qualification,  32.1% GCSE/O-levels/CSE, or NVQ/SVQ Level 1 or 2, or City and guides level1 or 2/ Craft/ Intermediate, or GNVQ/GSVQ Foundation or Intermediate level, or equivalent, 39.9% of A-levels or NVQ/SVQ Level3, or City and guilds level 3/ Advanced/ Final, or GNVQ/GSVQ Advanced Level, or equivalent, 9.4% NVQ/SVQ Level 4 or 5, or City and guilds Level 4/ Full technological, or equivalent, and 15.2% Higher National certificate, higher diploma, or foundation degree.

In total, there were 1314 completed surveys. The total sample of citizens with a university degree consisted of 688 participants, while the total sample for citizens without a university degree consisted of 619 participants. Optimal power can be achieved due to the large sample size.

*Pilot study*

Via convenience sampling, I distributed the survey before the conduction of a paid online sample in order to ensure that the study worked properly. The sample showed age ($M_{age}$ = 45, $SD_{age}$ = 10.45, range = 18; 67), political orientation (40.9% left-wing, 45.5% centrist, and 13.6% right-wing), educational background (45.5% without a university degree, 54.5% with a university) and a distribution between male and female showing 61% female.

**Design**

For the first hypotheses, H1a and H1b, I used two Wilcoxon tests. The test compared mean feelings of warmth towards citizens with a university degree to feelings of warmth towards citizens without a university degree for both samples.

For the second hypotheses, H2a and H2b, I used two MANOVAS in order to compare feelings of warmth towards the educational outgroup when exposed to research output about educational differences regarding ethnocentrism and the control group for both samples.

## Results

The results will consist of a preliminary analysis and a confirmatory analysis. The confirmatory analysis will be presented in two sections: First for the sample of citizens with a university degree and second for the sample of citizens without a university degree. For both samples, the results will present findings on affective polarization (Hypothesis 1a and 1b) and the influence on reading research output regarding ethnocentrism (Hypothesis 2a and 2b).

**Preliminary Analysis**

In order to examine the existence of affective polarization for both samples (citizens with and without a university degree), I compared participants' feelings of warmth towards the two comparison targets (educational ingroup and educational outgroup). Due to the violation of normality for both samples (Kolmogorov-Smirnov < .001), these tests were conducted via the Wilcoxon test.

Furthermore, two MANOVAs were conducted in order to examine the difference between reading research output on affective polarization for both samples (participants with and without a university degree). As Mauchly's test for sphericity showed that the sphericity assumption was violated for both samples ($p < .001$, Greenhouse-Geisser = 1), a Huynfeld correction was applied in order to interpret the results.

There were no identifiable outliers within the data set.

**Confirmatory analysis**

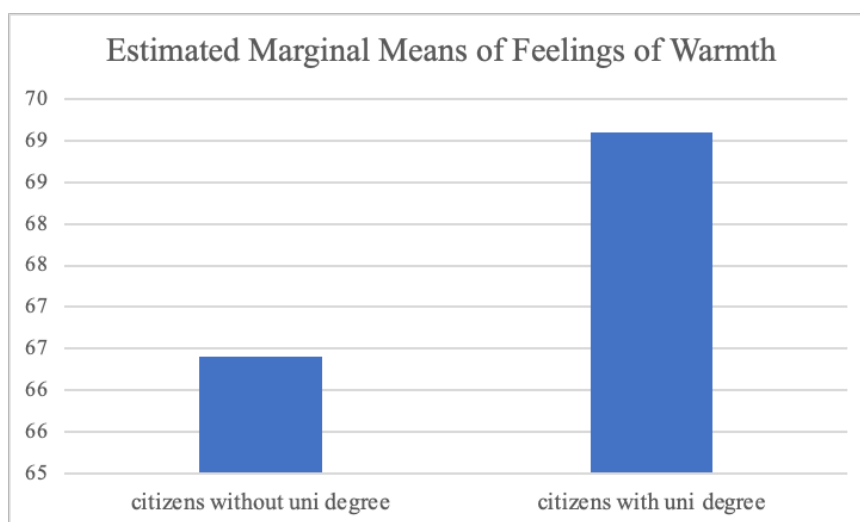***Affective Polarization of citizen with a university degree***

A Wilcoxon test was conducted to test whether citizens with a university degree would feel less warm towards citizens without a university degree. The results supported H1a, showing that participants felt significantly less warm towards citizens without a university degree (their educational outgroup) ($M = 66.37$, $SD = 20.58$) compared to citizens with a university degree (their educational ingroup) (M = 69.22, SD = 19.03780), $W = 5.21$, $p <$ .001, Cohen's $d = -.23$. This is depicted in figure 1, showing the mean perceived warmth towards both educational groups.

**Figure 1**

*Mean feelings of warmth of citizens with a university degree towards citizens with and without a university degree*
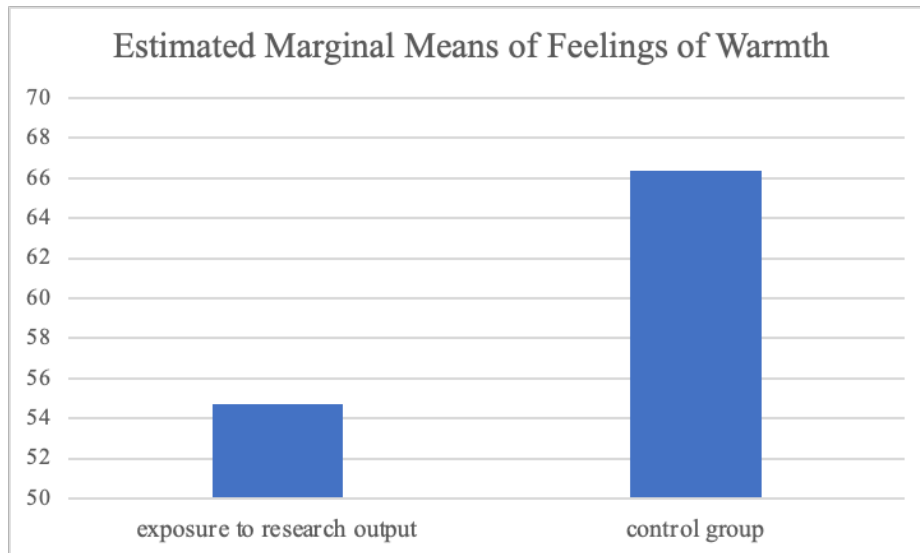


Note.  This is the sample of participants with a university degree

Furthermore, a MANOVA was conducted to test whether reading research output about educational differences regarding ethnocentrism increases affective polarization for citizens with a university degree. In accordance with H2a, participants with a university degree felt significantly less warm towards participants without a university degree when exposed to the research output ($M = 54.82$, $SE = 1.05$) compared to the control group ($M = 66.37$, $SE = 1.06$), $M_{diff} = 11.55$, $F(1, 686) = 60.30$, $p < .001$, $\eta^2 = .08$. Figure 2 depicts this relationship.

**Figure 2**

*Mean feelings of warmth of citizens with a university degree towards citizens without a*

*university degree: exposure to research output versus control group*



Note. The research output shows the relationship between ethnocentrism and education

***Affective Polarization of Citizens Without a University Degree***

A Wilcoxon test was conducted for the sample of participants without a university

degree to test whether they would feel less warm towards citizens with a university degree. As

shown in figure 3, the results supported H1a.  Participants without a university degree felt

significantly less warm towards citizens with a university degree (their educational outgroup)

($M = 69.18$, $SD = 20.83$) compared to citizens without a university degree (their educational

ingroup) ($M = 71.76$, $SD = 20.86$), $W = - 3.31$, $p < .001$, Cohen's $d = .18$.

**Figure 3**

*Mean feelings of warmth of citizens without a university degree towards citizens with and*

*without a university degree*
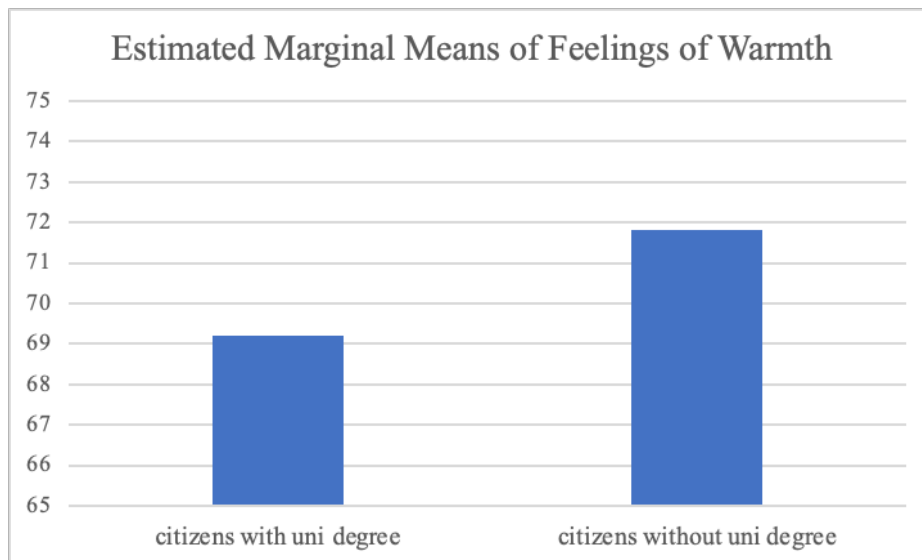
Note. This is the sample of participants without a university degree

Furthermore, a MANOVA was conducted to test whether reading research output about educational differences regarding ethnocentrism increases affective polarization for citizens without a university degree. In accordance with H2b, participants without a university degree felt significantly less warm towards participants with a university degree when exposed to the research output ($M = 63.12$, $SE = 1.16$) compared to the control group ($M = 69.17$, $SE = 1.14$), $M_{diff} = 11.55$, $F(1, 617) = 13.91$, $p < .001$, $\eta^2 = .02$. This is depicted in figure 4.

**Figure 4**

*Mean feelings of warmth of citizens without a university degree towards citizens with a university degree: exposure to research output vs control group*
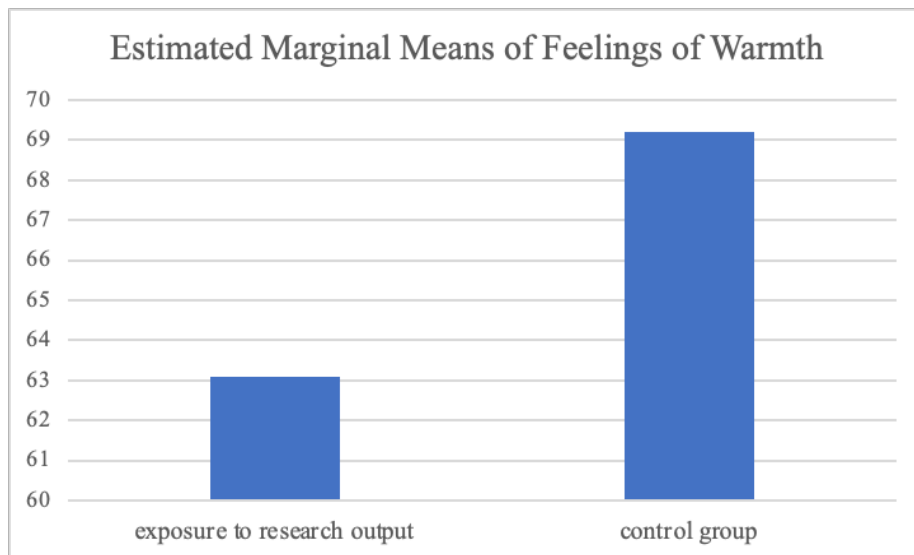
Note. The research output shows the relationship between ethnocentrism and education

## Discussion

The aim of this study was to investigate the existence of affective polarization based on educational differences and to examine the impact of reading research output about educational differences on affective polarization.

The findings of this study showed the presence of affective polarization among both more and less educated citizens towards their educational outgroup. This observation suggests the existence of group consciousness based on educational group-membership, aligning with previous theoretical perspectives (Bovens & Wille, 2010, 2012; Dekker & Van der Meer, 2009; Stubager, 2008; Tannock, 2009; De Koster et al., 2011).

Moreover, this study underscores the negative consequences associated with this group-consciousness: the emergence of negative feelings towards outgroup members. This finding aligns with social psychology theories suggesting that group-membership perceptions can lead to positive emotions within the in-group and negative evaluations of the out-group (Billig & Tajfel, 1973). It is worth noting that the observed differences in affective polarization based on educational attainment may contribute to educational conflicts, as individuals with different educational backgrounds may hold divergent views, priorities, and

interests (Stubager, 2009). These findings emphasize the need for further exploration of the dynamics of educational group-membership and its implications.

Additionally, the results contradict previous research by Spruyt and Kuppens (2015), which indicated that only less educated citizens perceive more educated as less warm. The discrepancy may stem from the operationalization of educational ingroups, and outgroups used in their study, which focused on individuals' level of attachment towards higher and lower educated groups. Prior research has demonstrated that people are not inclined to identify with a "lower class" (Centers, 1948; Tajfel & Turner, 1979) and the categorization of individuals as "lower" and "higher" educated does not allow for clear-cut group membership distinctions. Additionally, research has suggested that more educated individuals are even more likely to emphasize educational group-membership (Spruyt, 2012). Hence, it is important to investigating negative sentiments of more educated individuals towards less educated individuals.

The study also explored the impact of reading research output about educational differences, specifically regarding ethnocentrism, on affective polarization. The results supported the hypothesis that exposure to research output would lead to increased affective polarization for both educational groups. This finding can be attributed to the two theorized mechanisms: the salience of educational group-membership and the suggestion that this group-membership is associated with differing political attitudes. The research output highlighted how educational group-membership is linked to political attitudes and made this affiliation more salient. Notably, ethnocentrism is especially effective in highlighting educational differences. Among more educated individuals, openness to different cultures has become a symbol of status (Prieur & Savage, 2013; Savage et al., 2010; Bryson, 1996; Ollivier, 2008). On the other hand, less-educated citizens may face social disapproval for their

perceived lack of cosmopolitanism (Schoo, 2008; Sommer, 2017; Van der Waal, De Koster, & Van Noord, 2017).

The finding emphasizes the importance of caution among social science researchers when presenting their results. While examining educational differences regarding political attitudes is crucial for understanding political disparities and democratic processes, researchers need to be mindful of how they convey their findings. Presenting educational differences without nuance can contribute to negative outgroup perceptions (Roccas & Brewer, 2002), and it fails to capture the complexity of the issue.

Additionally, these findings carry substantial implications for the field of political science, shedding light on the potential for culture wars based on the highlighting of educational differences in cultural issues. Scholarly debates exist regarding whether migrant associations perform an integrative function by linking immigration to 'mainstream' politics (Heath et al., 2013). However, this research suggests that taking a clear stance on immigration issues can lead to increased affective polarization among both more and less educated citizens. Recent studies indicate that cultural issues evoke a more pronounced emotional divide compared to traditional economic policy differences (Hetherington etal., 2016; Gidron et al., 2020; Harteveld, 2021). Harteveld (2021) specifically demonstrated a 'culture wars effect,' where disagreement on migration policy resulted in greater antipathy than disagreement on economic issues related to the welfare system. Therefore, it is crucial to recognize the intricate interplay between cultural issues, educational differences, and affective polarization, and to consider the challenges of integrating immigration discussions into mainstream politics and the broader implications for societal cohesion.

One of the limitations of this study is that it used a single type of research output (specifically, research about educational differences regarding ethnocentrism). The exclusive focus on this aspect may overlook the influence of other types of research output. Future

studies could consider incorporating different examples of research that highlights educational differences in political attitudes. For example, previous research has shown a strong educational gradient in support for trade openness (Van der Waal & De Koster, 2015) and for the support for populist right-wing parties (Lubbers et al., 2002; Arzheimer, 2009; Bovens & Wille, 2010). Exploring the effects of exposing citizens to these educational differences can provide a more comprehensive understanding of the potential consequences on affective polarization.

Another limitation of this study is that it only investigated whether research output would lead to increased affective polarization but did not explore methods to mitigate these effects. It is crucial for future research to address strategies or interventions that can mitigate the negative consequences of research addressing educational differences. Scholars have demonstrated that fostering a more complex social identity can enhance tolerance for outgroups by reducing the tendency to overestimate the internal homogeneity of the ingroup and exaggerate differences between the ingroup and the outgroup (Roccas & Brewer, 2002). Therefore, future research could investigate whether adding more information on how the educational gradient develops and emphasizing the importance of avoiding broad generalizations could counterbalance the negative effects of highlighting educational differences in social science research. By examining how the presentation of research findings can be more nuanced or framed differently, researchers can explore approaches that reduce affective polarization and foster a more constructive dialogue about education.

### Conclusion

In conclusion, this study provides support for the existence of affective polarization based on educational differences, suggesting educational group consciousness and the negative consequences associated with such group perceptions. Furthermore, the research highlights the impact of reading research output about educational differences on affective

polarization, emphasizing the need for researchers to be mindful of how they present their findings. By delving deeper into the dynamics of educational group-membership and exploring ways to counterbalance its negative effects, future research can contribute to a better understanding of affective polarization and its implications in society.

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