

Underlying Mechanisms of the Education Bias

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Abstract

Education-based prejudices are widely present in today's society. However, at the same time, extensive knowledge about deeper workings and potential ways to reduce these prejudices is lacking. This makes acquiring such knowledge highly relevant. The present study aimed at getting a deeper understanding of mechanisms to explain the occurrence of the education bias. Based on previous research, cultural preferences, political threat beliefs, and contact diversity were analyzed. Using an online questionnaire, we took responses of $N = 229$ high educated individuals. Participants were asked to evaluate 4 profiles, characterized as either high- or low-educated, combined with either highbrow or lowbrow preferences. Moreover, self-report measures were used to assess network diversity, attitudes towards the less educated, cultural preferences, and political threat beliefs. We found supporting evidence of the education bias. Additionally, this research revealed that individuals with low threat beliefs or high network diversity showed less education bias than individuals with high threat beliefs or low network diversity. Thus, the factors political threat perception and likewise network diversity were both identified as influencing factors on education bias. Moreover, the results of network diversity add valuable insight for possible interventions, aiming at fighting educationism.

Keywords: education bias, education, prejudice, diversity of contact, political threat, equality

Underlying Mechanisms of the Education Bias

Today, level of education belongs to the strongest predictors of existential life outcomes like socioeconomic standing, salary, or employment (Easterbrook et al., 2013). However, at the same time education is one of the main factors causing and perpetuating inequality (Stiglitz, 1973). Accordingly, the societal division based on education level splits society not only in terms of material wealth but more importantly through a much internalized social mindset. Higher educated people use their education level as a source of positive self-evaluation (Kuppens et al., 2018). Along these lines, Kuppens and colleagues (2018) revealed negative attitudes among higher educated people towards lower educated people. This is known as education bias or educationism.

To ensure equal chances for people with different educational backgrounds, it is important to gain a deeper understanding of the education bias. Different educational backgrounds arise to a large degree from unequal chances due to family situation and general life circumstances (Goudeau & Croizet, 2017). However, contradicting these facts, lower educated are seen as highly responsible for their position, downplaying situational influences. This leads to neglect of an important societal issue, at the same time concealing the need to act upon it. Education bias is hindering change. Therefore, to foster equal chances by reducing the education bias, we first need to get a deeper understanding of it and where it is coming from. Specifically, the present research aims at analyzing three influencing factors that might explain the occurrence of education bias.

First, there is a connection between education and cultural preferences. Previous research has shown that differences in education level are related to different preferences in cultural life (Bourdieu & Nice 2004). More specifically, highly educated people like to mingle with other highly educated people in specific kinds of activities that are different from cultural activities preferred by lower educated groups. This is in line with the similarity attraction

theory, which theorizes increased liking for people with more similar preferences (Montoya et al., 2008). Importantly, concerning the education bias, cultural preferences may be one factor to explain part of it due to its relation to education in general.

Second, a relation was found between education level and political attitudes. While higher educated are in support of liberal politics, lower education is associated with more conservative attitudes (Lipset, 1959). Consequently, low educated pose a threat to the ideologies supported by the higher educated. Further, high educated are the dominant group in politics. Thus, lower educated have a bigger need for political change, therefore potentially threatening the dominant position of the higher educated (Stubager, 2009). This threat perception might lead to the negative evaluation of the lower educated.

Third, based on the contact hypothesis, diversity of contact will be scrutinized. Contact between groups was identified as an effective way to reduce prejudice, thus we will investigate the applicability to education-based prejudices (De Coninck et al., 2021). Specifically, network diversity might be a promising factor to exert influence on educationism, i.e., reducing educationism.

Thus, cultural preferences, political threat beliefs from lower educated people, and contact diversity seem to be valuable research topics when investigating possible influencing factors that impact the education bias.

Literature Review

Importance of studying Education Bias

Education bias is a crucial matter for societal research, considering that chances for educational success are not distributed equally while simultaneously influencing existential life outcomes. On the individual level, education level is known to affect the socio-economic status, salary, job, and health, with better outcomes for higher educated individuals (Easterbrook et al., 2013; Dilmaghani, 2020). Besides, there is evidence showing an

association between education level and political attitudes towards crucial topics such as immigration (Bovens & Wille, 2010). On a societal level, education is a key force, structuring society, where status is largely determined by education level (Baker, 2014; Van Noord et al., 2019). Hence, education level does not only influence the individual but impacts the whole political scenario of a country. However, this is problematic, considering that chances for educational success are not distributed equally.

Chances for educational success are much determined by educational family background. Children of high educated families learn academic prerequisites like academic language and values from an early age onwards and are therefore in a superior position. Thus, a significant part of the differences in academic performance stem from systematic sources, reaching beyond individual differences. This is known as the social class achievement gap (Goudeau & Croizet, 2017). Therefore, the current educational system is one of the main factors, preserving inequality (Stiglitz, 1973).

The consequences are immense, as society gets divided into people of higher and lower education, therefore cultivating “a social structure of inequality” (Depaepe & Smeyers, 2008, p. 388). Independently of their own education level, individuals accept education as a measure of societal standing (Van Noord et al., 2019). Correspondingly, research showed that high educated people evaluate other high educated people more positively than low educated people, in other words the education bias (Kuppens et al., 2018). However, this negative judgment by the higher educated is often not recognized as what it is, a form of discrimination. This can be explained through the ideology of meritocracy that is much internalized in western society.

Meritocracy describes the understanding that every individual is responsible for their own life outcomes. Every accomplishment needs to be earned and deserved (Son et al., 2011). Today, discrimination based on something out of an individuals’ control is considered

improper (Bahns & Branscombe 2011). However, since education is regarded as controllable, lower educated people get blamed for their situation. This makes educationism the last form of prejudice, that is perceived as justified, neglecting that there is an issue and therefore hindering change (Kuppens et al., 2018.).

Education bias is not the cause of inequality, but it is one factor hindering change. Subsequently, getting a deeper understanding of the mechanisms that led to educationism is an important research objective to ensure equal chances in today's society. Educationism describes the attitudes of high educated people towards lower educated people, thus the whole study will focus on the attitudes of high educated people. In this paper, level of education is conceptualized as an individual's highest degree. Thus, everyone who has already obtained, or currently obtains, a bachelor's degree or higher, is classified as high educated and everyone below this education level as low educated. The following part will give a summary of the theoretical background that led to our hypothesis.

Self-Categorization Theory and Meritocracy

To explore the origin of the education bias, a fundamental concept that explains educationism, is the social identity theory. The social identity theory describes how individuals want to perceive the self and the in-group as positive, therefore focusing on negative characteristics of an outgroup (Ashforth, 1989). The relation to education bias follows from a study by Kuppens and colleagues (2018) who identified a relation between high educated people's identification processes, their education level, and strength of education bias. Accordingly, high educated individuals who showed high identification with their education level had a stronger education bias. Hence, high educated individuals focus on their social class to positively differentiate the self from others (Easterbrook et al., 2020). This contributes to a more negative evaluation of low educated individuals compared to high educated, hence the education bias.

Another reason for the education bias is that higher educated individuals simply have an interest in seeing education as a legitimate source of status. Research suggests that higher educated do not want to classify the system as unfair as that would consequently question the legitimacy of their privileged position, in the societal hierarchy (Phillips & Lowery, 2020). Drawing on research by Phillips and Lowery (2020), after being confronted with their class privilege, individuals claimed increased hardship to restore personal merit. Likewise, research by Warikoo and Fuhr (2014) found a similar effect, showing that Oxford students did acknowledge unequal chances for admission at Oxford, but at the same time claimed that their intelligence was responsible for their individual admission. Moreover, they would not support policies supporting equal chances, thus perpetuating the status quo. Hence, higher educated profit from a system where status is determined by education level. Therefore, evaluating lower educated more negatively aims at keeping the inequalities up.

Following from the literature, higher educated individuals use education as a form of positive self-evaluation. Further, it seems that seeing education as a legitimate source of status is advantageous for higher educated people. However, this notion fosters inequality. This illustrates the importance there is in broadening the understanding of the education bias. In the following section, we will therefore have a closer look at factors related to education, namely the influence of cultural preferences, political threat beliefs, and network diversity.

The Role of Cultural Preferences

Research established a strong relationship between education and cultural preferences. Further, cultural preferences were found to be related to identity formation processes, used in judging others. Therefore, cultural preferences seem to be worthwhile investigating when exploring and understanding educationism.

Cultural interests can be divided into highbrow and lowbrow preferences. While lowbrow preferences represent interests that are associated with a lower social status (e.g.,

watching reality TV), highbrow preferences represent a high social status (e.g., visiting the museum) (Bourdieu & Nice 2004). Cultural preferences play a significant role in identity formation processes (Elchardus & Siongers, 2007). Individuals want to be different in terms of their taste, thus they use their cultural preferences to distinguish from people with different cultural preferences (Elchardus & Siongers, 2007; Spears et al., 2009). However, at the same time, they use their cultural preferences to socialize with people who have similar preferences.

This follows from the similarity-attraction theory, suggesting that individuals feel more attracted towards people who are similar (Montoya et al., 2008). This suggests that people, who judge others based on cultural preferences, show higher liking towards those with similar preferences. Therefore, we hypothesize assumed similar highbrow preferences to be a reason for the education bias, leading to a more positive evaluation of high educated individuals. Likewise, we assume that lower educated individuals might be less liked because of their low-brow preferences. Furthermore, we predict that the effect of target education depends on target cultural preferences. Education will no longer have an effect when the target has highbrow preferences, presumably because a lower educated person with highbrow preferences is liked anyway, because of the highbrow preferences. First off, we hypothesize to replicate the education bias in this research that was previously discovered by Kuppens and colleagues (2018).

Hypothesis 1: High educated people evaluate high educated people more positively than low educated people.

Moreover, corresponding to existing research about cultural preferences, we hypothesize:

Hypothesis 2 (a) Main effect of highbrow preferences on liking: targets with highbrow preferences will be evaluated more positively than individuals with lowbrow preferences (b) Interaction effect between education and cultural preferences: education will only have an

effect when the target has lowbrow preferences, not when the target has highbrow preferences.

Political Threat Perception

In addition to cultural preferences, another possible predictor of educationism are political threat beliefs. Education level is associated with different political orientations, which can lead to threat perception in two ways (Bovens & Wille, 2010).

First, the lower educated have reasons to modify the status quo, therefore threatening the dominant position of the higher educated (Stubager, 2009). Lower educated individuals have a bigger need for political change as they express great levels of political cynicism while high educated people report considerably higher satisfaction with politicians (Bovens & Wille, 2010; Easterbrook et al., 2016). Since the higher educated profit from this system, they aim to prevent conflict. Consequently, they aim to appear inclusive, using symbolic concessions (Blee & Jackman, 1994). However, actual changes fostering equality are not being supported, as keeping the inequalities upright protects the dominant position of the higher educated (Blee & Jackman, 1994; Jackman & Muha, 1984).

Second, lower educated are perceived as a threat because of their political orientation (Santavuori, 2020). While lower educated advocate more conservative policies, a liberal orientation is common among higher educated people. Crucial political topics that separate those groups are “crime, asylum seekers, cultural integration” (Bovens & Wille, 2010, p.415), where lower education is associated with more extremist and intolerant attitudes and higher prejudice scores (Lipset, 1959; Carvacho et al., 2013). Thus, lower educated threaten the political ideology of the higher educated.

Accordingly, we hypothesize that education bias might partly be explained by the perception that the lower educated pose a political threat. Specifically, the stronger the political threat beliefs, the higher the education bias.

Hypothesis 3: Political threat beliefs influence the strength of the education bias, with higher political threat beliefs resulting in higher education bias.

The Role of Network Diversity

Given the scope, that education-based prejudice take, a crucial question for social psychology is how education bias can be reduced. Prejudice research about familiarity and liking has demonstrated that the more individuals get exposed to something or someone, the more they like it (Colman, et al., 1986). Accordingly, the contact hypothesis specifies how intergroup contact is one of the most useful ways to diminish prejudice (De Coninck et al., 2021). Correspondingly, higher inter-wealth contact between children was found to be associated with more awareness for distributive justice and intergroup attitudes (Elenbaas, 2019). In line with this, research with school-aged adolescents found that interracial contact reduced prejudice towards ethnic minorities. So far, only one study is known that tested the effect of intergroup contact on education-based prejudice. Using thermometer measures, higher amount of contact to individuals with lower levels of education was found to be associated with less education bias (Onderstijn, 2020).

The literature illustrates the scope, that early intergroup contact can have. Drawing on the study by Onderstijn (2020), we want to further investigate the role of contact, conceptualized as the network diversity in terms of contact to people with different socioeconomic backgrounds. Instead of thermometer measures, we are going to replicate the finding using a Likert scale. We hypothesize that high network diversity, is associated with less education bias and low contact with high education bias.

Hypothesis 4: High educated people with high network diversity show less education bias than people with low network diversity.

The Current Study

This study aims at getting a deeper understanding of the occurrence of educationism. In the current study, a convenience sample of high educated individuals is asked to fill out an online questionnaire where a cover story about the preferences when choosing friends is presented. Participants are asked to indicate the liking of four target individuals, where education level and cultural preferences were manipulated. Further, participants provide their assessment to several matters, for instance diversity of network, attitudes towards lower educated, political threat perception.

We expect the education bias to be replicated. Moreover, we expect highbrow preferences to have a main effect on liking and political threat beliefs to be related to educationism. Finally, following from the contact hypothesis, we hypothesize high inter-educational contact to be associated with a weaker education bias.

Method

Participants and Design

A purposive sample of 243 participants was recruited. Part of the participants were from the psychology student population at the University of Groningen ($N = 96$), recruited through the SONA participant pool in return for course credits. The rest of the respondents were recruited within the researcher's social circle ($N = 147$). To increase the sample size, based on the 'snowball technique', participants were encouraged to share the questionnaire with people they knew. Participants who did not classify as highly educated, who did not fill out the informed consent or who did not fully complete the questionnaire were excluded ($N = 14$). Therefore, 229 responses ($M_{\text{age}} = 22.3$, $SD_{\text{age}} = 10.6$) were taken into account in the final analysis. Table 1 shows the demographic characteristics of the subsample that was considered during the analysis.

Table 1

Socio-Demographics of Participants, considered in the Analysis

| | Subsample | |
|--|-----------|------|
| | n | % |
| Gender | | |
| Male | 61 | 26.6 |
| Female | 165 | 72.1 |
| Other | 3 | 1.3 |
| Nationality | | |
| Dutch | 81 | 35.4 |
| Geman | 90 | 39.3 |
| British | | |
| Other European | 36 | 15.7 |
| Non-European | 22 | 9.6 |
| Participant education | | |
| No qualification | | |
| Less than an upper secondary diploma | | |
| Upper secondary diploma or equivalent | 6 | 2.6 |
| Short-cycle or vocational tertiary education | 5 | 2.2 |
| Bachelor's degree or equivalent | 18 | 7.9 |
| Master's degree or equivalent | 16 | 7.0 |
| Doctor degree or equivalent | | |
| Currently studying | 182 | 79.5 |
| Missing | 2 | 0.9 |

Note. N of the full sample =229

A 2 (“cultural preference”: highbrow vs lowbrow) x2 (“education level”: high education vs low education) experimental design was used. The independent variables were cultural preferences and education level. The dependent variables were the attitudes towards the high educated and the less educated. Political threat perception, as well as contact diversity, were used as covariates for this study.

Procedure and Materials

The online platform Qualtrix (www.qualtrics.com) was used to carry out the survey. The online questionnaire was created in English as it would allow us to reach out to a bigger target population. A questionnaire consisting of 37 items (+ 5 general questions regarding demographics) was used to collect the data. Participants could access the questionnaire via an online link or via the SONA website, an online research platform by the University of Groningen. Data was collected from the 27th of November to the 7th of December. Before the

start of the survey, participants gave informed consent. Every participant was presented with the same set of questions. All the items that were used can be found in Appendix A. The questions were presented in the following order.

General information

Participant education level and other demographics. Questions were asked regarding age, gender, nationality, employment status, highest level of education achieved, and the level of education they are currently following.

Attitudes towards high and low educated

The questions about this variable were disguised with a cover story, through which the participants should believe that the research was about the process of making friends. After reading the story, participants were presented with four different profiles. Profiles varied in education and cultural preferences in a 2 (Education: low versus high) by 2 (cultural preferences: lowbrow versus highbrow) within-subject design. To display high education, we used “Final stage of their Bachelor in the faculty of Economics and Business” and “Working on their Bachelor thesis in the faculty of Law”. For low education we used “Recently finished their Sales Employee training” and “Working on their final project for their carpenter apprenticeship”.

Cultural preferences were chosen using a presurvey to determine which preferences would be classified as highbrow and which ones as lowbrow preferences. The manipulation of cultural preferences involved music, film, hobbies, and tv preferences. For instance, an example for highbrow preferences would be: hobbies: piano; favorite music genre: Techno; favorite film genres: documentaries; sport: hockey, and an example of lowbrow preferences: hobbies: doing TikTok videos; favorite music genre: Pop; favorite film genres: romantic comedies; sport: football.

To measure the participants' evaluations of these profiles, 3 items were used, using a seven-point Likert scale (0= Not likely at all, 6= Highly likely). The questions aimed at assessing liking, befriending, and identification, accessible in appendix A (All 3 questions were shown together after seeing/reading each profile). They were averaged into a single score of profile evaluation ($\alpha = .58$). A final question asked participants to rank the four profiles from most likely to befriend to least likely to befriend, using a ranking scale.

Diversity of social network

Participants were measured on the diversity of their social network with questions about the characteristics of their social network, using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Statements were for instance, "I have friends and family from different socioeconomic backgrounds", "My acquaintances (Bekannte, Kennissen) come from a variety of different socioeconomic backgrounds". Moreover, quantity of contact with lower educated people, using a 7-point Likert scale (1 = none, 7 = all) was assessed. Using the request "Please take a guess as to how many people in your network are lower educated", participants were asked to indicate quantity of contact for their family and close friends, and further for less close contacts.

Political threat perception.

Perceived threat from lower educated. We used a total of 4 items to measure threat ($\alpha = .76$). Participants were asked to indicate their agreement to different statements, using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). For instance, "People with lower levels of education are threatening the values of our society" or "The political preferences of those with lower levels of education will cause harm to society." Two items were taken from Spruyt (2014) while the other two items were specifically constructed for this study.

The Ethical Committee of Psychology (ECP) from the faculty of Behavioral and Social Sciences at the Rijksuniversiteit Groningen approved this study design.

Results

Preliminary Analysis

The questionnaire was used for a group project, thus only part of all variables will be scrutinized in the following analysis. Preliminary to the analysis, the variables were centered.

SPSS Version 26 was used for the statistical analysis. To check significance, an alpha level of .05 was used. For hypothesis testing, we worked with repeated measures (within-subjects) ANOVA. All hypotheses were tested within the same repeated measures ANOVA, assessing the evaluation of the independent variables education, cultural preferences, and their interaction. The four profile evaluations (high educated-lowbrow preferences, high educated-highbrow preferences, low educated-lowbrow preferences, low educated-highbrow preferences) were the dependent variables. Further, we added threat and diversity of network as single covariates separately to the model to test for their interaction effects with education.

For the repeated measures ANOVA, preliminary to the analysis, an assumption check, investigating independence, normality, and sphericity was conducted. All assumptions were met. For more details see appendix B. Additionally, homoscedasticity for the four dependent variables was checked and met. For more details see appendix C. To conclude, no meaningful violations were found.

Hypothesis Testing

Hypothesis 1 suggested that high educated people would be evaluated more positively than low educated people. We conducted a repeated measures (within-subjects) ANOVA to test the main effect of education across the four profile conditions. A main effect of education was found ($F(1,219) = 20.89, p < .001, MSE = 0.82, \eta^2 = .09$), indicating that throughout the study, higher educated individuals were evaluated significantly higher ($M = 4.26$) compared to lower educated individuals ($M = 3.81$). In summary, hypothesis 1 was supported.

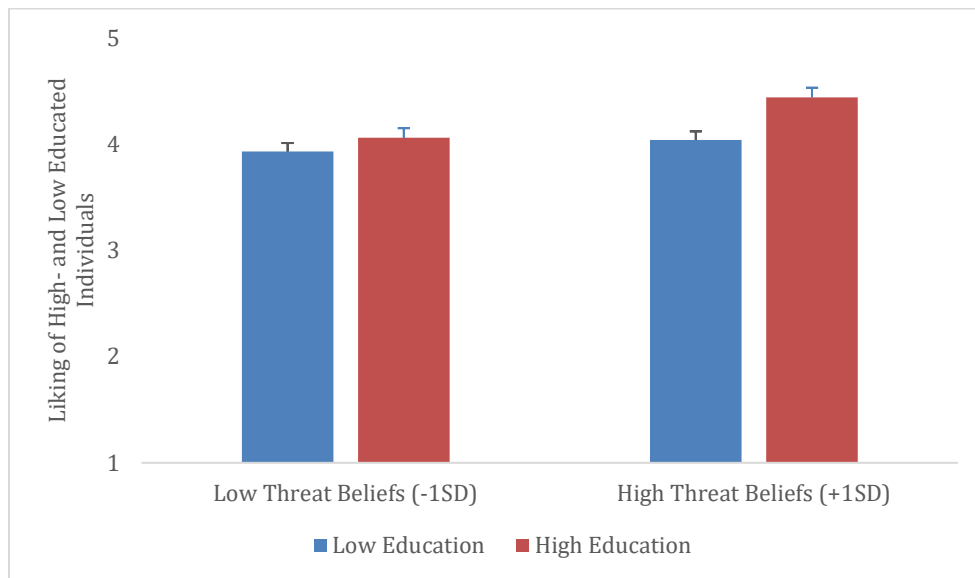
Hypothesis 2 predicted that once cultural preferences and education level of an individual are accessible, (a) individuals with highbrow preferences are going to be evaluated more positively than individuals with lowbrow preferences, and (b) education will only have an effect when the target has lowbrow preferences, not when the target has highbrow preferences. To test 2a with the conducted ANOVA, the main effect of cultural preferences on liking across the four profiles was analyzed. We found a significant difference between the evaluation of highbrow and lowbrow preferences ($F(1,219) = 83.86, p < .001, MSE = 1.15, \eta^2 = .28$). This indicates that throughout the profiles, people with highbrow preferences were evaluated significantly higher ($M = 4.45$) than people with lowbrow preferences ($M = 3.79$). 2b was tested by scrutinizing the interaction effect between education level and cultural preferences. No significant effect was found ($F(1,219) = 1.03, p = .31, MSE = .74, \eta^2 = .01$). This suggests that the effect of education level on liking is not moderated by cultural preferences. To conclude, while hypothesis 2a was supported, hypothesis 2b was not supported by the data.

Hypothesis 3 stated that political threat beliefs would influence the strength of the education bias. Using the previously conducted ANOVA with political threat beliefs as a covariate, the interaction effect between political threat beliefs and education was analyzed. The aim was to predict whether education bias would depend on the level of political threat beliefs. The interaction effect was significant ($F(1, 214) = 4.20, p = .04, MSE = 0.82, \eta^2 = .02$). While the evaluation of lower educated people did not significantly differ between threat levels ($M_{\text{highthreat}} = 4.04, M_{\text{lowthreat}} = 3.93$), individuals with high political threat beliefs evaluated higher educated more positively ($M = 4.44$) than individuals with low threat perception did ($M = 4.06$). The effect is displayed in figure 1. The higher the threat beliefs of an individual, the higher that person will evaluate someone with a high education level. This

results in an education bias that is larger for those with high threat beliefs compared to low threat beliefs. Hence, the data did support hypothesis 3.

Figure 1

Impact of Threat Beliefs on Educationism



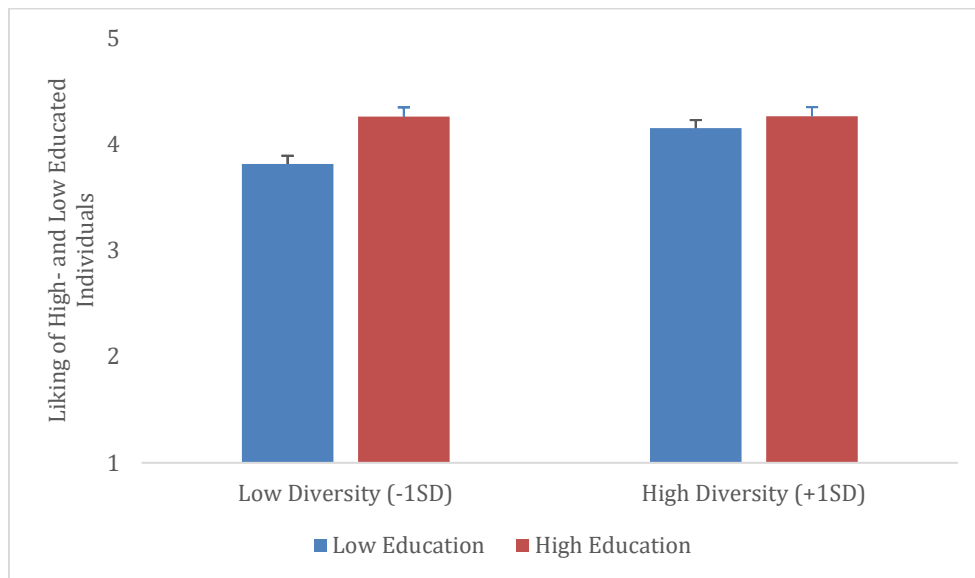
Note. Liking of high and low educated people is based on the four profile evaluations. The error bars indicate the spread of the data around the mean. The error bars are small, therefore indicating low variation.

Hypothesis 4 suggested network diversity to influence the strength of education bias. Specifically, the higher the diversity of the network, the lower the education bias. The conducted ANOVA, using network diversity as a covariate was used to test whether network diversity would affect education bias across the profile conditions. The interaction term was significant ($F(1, 180.45) = 7.36, p = 0.01, MSE = .82, \eta^2 = .03$). For people high in network diversity, there was no difference in the evaluation of higher educated individuals ($M = 4.26$), compared to lower educated individuals ($M = 4.15$). However, people with low network diversity evaluated higher educated individuals more positively ($M = 4.26$) than lower educated individuals ($M = 3.81$). The effect is displayed in figure 2. The more diverse the social network is, the higher that person will evaluate someone with a lower education level.

Correspondingly, higher educated people with low network diversity evaluate lower educated targets more negatively than higher educated targets. Thus, hypothesis 4 was supported.

Figure 2

Diversity of Network and Educationism



Note. Liking of high and low educated people is based on the four profile evaluations. The error bars indicate the spread of the data around the mean. The error bars are small, therefore indicating low variation.

Discussion

With the intention to analyze the mechanisms that lead to educationism, this study focused on cultural preferences, political threat perception, and network diversity. Two key findings stand out. Both factors, network diversity and political threat perception were identified as influencing factors on education bias. Lower threat perception, as well as high network diversity, were both associated with a lower education bias. Moreover, validating our expectations, the education bias was replicated and a main effect of highbrow preferences on liking was confirmed. However, contrasting our expectations, the hypothesis that the effect of education would only exist once a target has lowbrow preferences was not confirmed.

Theoretical Implications

As expected, we found supporting evidence for the education bias. This finding is consistent with previous research by Kuppens and colleagues (2018) who first discovered educationism. However, instead of using thermometer measures to determine attitudes towards educational groups, this study used indirect measures taken from profile evaluations. Participants evaluated four potential friends, without knowing that our interest was in the participants reaction towards higher versus lower educated potential friends. Significant findings across different measures indicate a rather robust effect, occurring for different operationalizations of education bias. To get a deeper understanding of the mechanisms behind educationism, we further analyzed cultural preferences, threat beliefs, and network diversity.

As expected, individuals with highbrow preferences were evaluated more positively than individuals with lowbrow preferences. Research by Elchardus and Siongers (2007) described the role of cultural preferences as giving meaning to ones identity and further as a criterion, used to draw the line between ingroup and outgroup members. The studies interest was in high educated people. As highbrow preferences are associated with a higher social status, most of the participants of this study can be assumed to have had highbrow preferences themselves (Bourdieu & Nice 2004). Therefore, our finding corresponds to the similarity attraction theory (Montoya et al., 2008). It is reasonable to assume that individuals with highbrow preferences were liked more because of their similar preferences to the evaluator.

This finding further suggested the conjecture whether low educated might get evaluated more negatively than high educated due to assumed lowbrow preferences. However, contrary to our expectations, this hypothesis was not supported. It was assumed that once education level and cultural preferences are accessible, education would only play a role among those with lowbrow preferences. The fact that we did not find this effect of cultural preferences is not surprising, given the substantial literature on the significant role of

education in this society. “Education is a better safeguard of liberty than a standing army.”- Edward Everett (Wiebe, 2011, p.1). Edward Everett emphasizes the importance, that the higher educated assign to the values resulting from an educated society. Education level is a substantial factor in the evaluation of social status (Van Noord et al., 2019). Thus, contrary to our expectations, there was no interaction. Therefore, education and cultural preferences seem to be independent influences on how potential friends get evaluated. Based on these results it can be concluded that cultural preferences do not explain educationism. However, we further analyzed whether other possible influential factors might play into this process.

Essentially, the hypothesis that amount of political threat beliefs would be associated with strength of education bias was supported. Individuals with high threat beliefs showed a stronger education bias than individuals with low threat beliefs. Therefore, our findings combine previous research about political conflicts with education-based prejudice (Walter et al., 2000). The data support our belief that threat against the dominant position of the higher educated and conflicting political orientations are a reason for higher educated to perceive lower educated as a threat (Stubager, 2009; Lipset, 1959). In response to this perceived threat, high educated people are known to support ideologies, representing paternalism (Jackman & Hays, 1995). The dominant group actively seeks to suppress conflict while simultaneously supporting the legitimacy of the status quo (Blee & Jackman, 1994; Jackman & Muha, 1984). However, another possible explanation for these findings is once more similarity. In account of the similarity attraction theory, higher educated people might have simply been evaluated more positively because of assumed similar political attitudes (Montoya et al., 2008). Nonetheless, in account of these findings, political threat perception can be identified as playing into the negative evaluation of lower educated and therefore being an influencing factor of educationism.

As expected, high diversity of social network was associated with less education bias. Thus, individuals with high network diversity show less prejudice against lower educated than individuals with a low diverse network. Intergroup contact and its impact on the reduction of prejudice have been analyzed in different contexts such as inter-wealth contact and interracial contact (Elenbaas, 2019; White et al., 2009). However, in the context of educational prejudice, only one source is known that analyzed the relation to network diversity (Onderstijn, 2020). Again, while this study used direct, self-report measures, we used a more indirect measure of education bias. The findings across different operationalizations of education bias indicate a strong effect. The findings are in line with the contact hypothesis, stating that intergroup contact diminishes prejudice (De Coninck et al., 2021). This study endorsed that this theory can further be applied to education-based prejudice. We assume that individuals with a more diverse network have more contact with lower educated people, therefore we assume this to be the reason for the relation between network diversity and education bias. Theoretically, our data identify diversity of social network as an influencing factor of educationism.

Practical Implications

Exceeding the theoretical context, much of the insight has meaningful implications for the real-world context. At present, chances in this world depend much on educational status, fostering a society with two classes. Thus, reducing educational prejudice is important in leading the path to a world with equal chances. For this reason, the results concerning network diversity are particularly of interest. We advise political organizations to foster intergroup contact between different education levels. For instance, changing the school system in a way that partition occurs at a later age. Existing research showed how pure contact, independently of the quality of contact was sufficient to reduce racial prejudice (White et al., 2009). Thus,

simply offering spaces where increased contact occurs might diminish education-based prejudice.

This might additionally be a way to diminish political threat perception. In the Netherlands, the high-educated are prevalent among all political sectors. However, looking at the whole population, less than 30% are high educated (Bovens, & Wille, 2010). Thus, there is not much room for political exchange, consequently leaving much room for the development of threat perceptions. Therefore, bringing people together and creating room for political exchange might further be a way to reduce educationism.

Limitations and Future Research

Nonetheless, possible improvements respecting the quality of this study should be noted. Firstly, methodological limitations of the questionnaire were identified. As we asked questions regarding stigmatized groups, social desirability might have played into the results. As reported by the self-presentation theory, individuals want to behave in accordance with how they want to see themselves (Baumeister & Hutton, 1987). We used an indirect measure for educationism, however network diversity and threat beliefs were assessed through self-report measures. Thus, these measures were more suspect to social desirability.

Moreover, the recruiting took place predominantly in the researchers surrounding and through the SONA platform that is only accessible by psychology students. Therefore, it is reasonable to assume that most participants of the study were rather similar to the researchers. Thus, given awareness and interest in societal issues like prejudice or inequalities might have influenced the responses. Accordingly, our data lacks external validity. For future research, the use of a more diverse sample is advised.

Further, the quality of the manipulation of the four profiles should be considered. As a cover story, participants were told that the study was about choosing friends. However, when meeting people in real life, there are significant other factors that additionally play into this

process. Therefore, our study lacks ecological validity. Repeating the study as an experimental design with real people is encouraged.

Nonetheless, we found compelling results, thus further research should build upon this design. Future research should look at the shortcomings of this study. Moreover, future research should be conducted, aiming at designing interventions to reduce education-based prejudice. For instance, by exposing different educational groups to each other and analyzing the effectiveness of different forms of contact in reducing educationism. Previous research discovered that knowing ingroup members that have outgroup friends without direct contact already had a positive effect on prejudice scores (Gómez et al., 2018). Further, research by White and colleagues (2009) discovered that quality of contact was not relevant for the reduction of racial prejudice in adolescents. However, research by Gaertner and colleagues (1994) identified the creation of an ingroup identity as an important factor. Thus, results are mixed and more insight is needed to set up effective interventions.

Conclusion

Education bias is a prevailing phenomenon in the current society. In this study, underlying mechanisms to explain the occurrence of the education bias were investigated. We explored cultural preferences, political threat beliefs, and diversity of network as possible influencing factors. Regardless of the limitations, this study identified both, political threat beliefs and diversity of network as influencing factors of the education bias. More precisely, the higher the threat beliefs or the lower the network diversity of an individual, the stronger was the education bias. Importantly, bringing many practical implications, we identified network diversity as a possible way to reduce education-based prejudice. Thus, this study contributed to the current body of knowledge with new insight to fight against education bias. Hence, future research might specifically target the role of intergroup contact, analyzing in

what form intergroup contact must occur to reduce education-based prejudice most effectively.

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Appendix A

Items of the Questionnaire

Consent

Consent I have read the information above and I consent to participate in this study

- Yes, I consent
- No, I do not consent

Demographics

age How old are you?

gender What is your gender?

- Male
- Female
- None of the above

nation What is your nationality?

- Dutch
- German
- British
- Other European
- Non-European

empstatus Which of the following describes best what you have been doing for the last two weeks?

- In paid work (or away temporarily, employee, self-employed, working for family business)
- In education (not paid by employer) even if on vacation
- Unemployed
- Permanently sick or disabled

- Retired
- Doing housework, looking after children or other persons
- Other (please specify)

Display This Question: If empstatus != 2

edulevel What is the highest level of education you have achieved?

- No qualifications
- Less than an upper secondary diploma
- Upper secondary diploma or equivalent (general or vocational; e.g., A-level, BTEC, Abitur/ Fachhochschulreife, HAVO, VWO, MBO 2-3-4, matricular examination)
- Short-cycle or vocational tertiary education (e.g., MBO-4 specialist, HBO Associate degree, Ausbildung, Berufsoberschule, Abendgymnasium, specialist Vocational Qualification, Higher national certificate/diploma, or equivalent)
- Bachelor's degree or equivalent (University, Applied Sciences, Fachhochschule (FH), WO, HBO)
- Master's degree or equivalent
- Doctoral degree or equivalent
- Other (please specify)

Display This Question: If empstatus = 2

Q6 educurrent What level of education are you currently following?

- Upper secondary diploma or equivalent (general or vocational; e.g., A-level, BTEC, Abitur/ Fachhochschulreife, HAVO, VWO, MBO 2-3-4, matricular examination)
- Short-cycle or vocational tertiary education (e.g., MBO-4 specialist, HBO Associate degree, Ausbildung, Berufsoberschule, Abendgymnasium, specialist Vocational Qualification, merkonomi, Higher national certificate/diploma, or equivalent)

- Bachelor's degree or equivalent (University, Applied Sciences, Fachhochschule (FH), WO, HBO)
- Master's degree or equivalent
- Doctoral degree or equivalent
- Other (please specify)

Choosing friends intro

introchoosingfriends Groningen is an international city where various nationalities come together. However, knowledge about the nationality or solely hearing an accent leads to the automatic activation of stereotypes. In this study we want to focus on the process of choosing friends, independently of their nationality but based on who that person really is. In the following part of the study descriptions of four individuals will be presented. You will be asked to indicate how much you like each of them.

Friend A

Person A

Q1 How much do you like this person?

- 0 Do not like at all
- 1
- 2
- 3
- 4
- 5
- 6 Like very much

Q2 How likely is it that you would choose this person as your friend?

- 0 Not likely at all
- 1

- 2
- 3
- 4
- 5
- 6 Highly likely

Q3 How much do you identify with this person?

- 0 Not at all
- 1
- 2
- 3
- 4
- 5
- 6 Very muchy

Friend B

Person B

Q1 How much do you like this person?

- 0 Do not like at all
- 1
- 2
- 3
- 4
- 5
- 6 Like very much

Q2 How likely is it that you would choose this person as your friend?

- 0 Not likely at all

- 1
- 2
- 3
- 4
- 5
- 6 Highly likely

Q3 How much do you identify with this person?

- 0 Not at all
- 1
- 2
- 3
- 4
- 5
- 6 Very much

Friend C

Person C

Q1 How much do you like this person?

- 0 Do not like at all
- 1
- 2
- 3
- 4
- 5
- 6 Like very much

Q2 How likely is it that you would choose this person as your friend?

- 0 Not likely at all
- 1
- 2
- 3
- 4
- 5
- 6 Highly likely

Q3 How much do you identify with this person?

- 0 Not at all
- 1
- 2
- 3
- 4
- 5
- 6 Very much

Friend D

Person D

Q1 How much do you like this person?

- 0 Do not like at all
- 1
- 2
- 3
- 4
- 5
- 6 Like very much

Q2 How likely is it that you would choose this person as your friend?

- 0 Not likely at all
- 1
- 2
- 3
- 4
- 5
- 6 Highly likely

Q3 How much do you identify with this person?

- 0 Not at all
- 1
- 2
- 3
- 4
- 5
- 6 Very much

ranking

Q1 Rank the profiles from most likely to befriend to least likely to befriend (you can see the descriptions below)

_____ Friend A (1)

_____ Friend B (2)

_____ Friend C (3)

_____ Friend D (4)

Q72

Person A

Person B

Person C

Person D

Diversity of network

diversity Now we would like to know about the characteristics of your social network. Please

indicate how much you agree with the following statements. Strongly disagree (11)

Somewhat disagree (12) Neither agree nor disagree (13) Somewhat agree (14)

Strongly agree (15)

- I have friends and family from different socioeconomic backgrounds
- My acquaintances (Bekante, Kennissen) come from a variety of different socioeconomic backgrounds
- When I was growing up, I had contact with people from different socioeconomic backgrounds

introsocialnetwork Now we would like to ask you a few questions about your contact with

people who have lower levels of formal education. Lower educated people are those who dropped out or stopped studying after secondary school (high school).

contact Please take a guess as to how many people in your network are lower educated.

None (1) A few (2) A fair amount (3) About half (4) More than half (5)

Most (6) All (7)

- Among your family and close friends
- Among less close contacts such as neighbours, colleagues, acquaintances

quality Now we would like to know how would you describe the quality of your contacts with

lower educated people. If you do not have any contact, you can leave the question

blank. 0 indicates very negative contacts, and 100 very positive contacts. To select

your choice, use the cursor to move the slider to the right. Very negative Neutral

Very positive

0 10 20 30 40 50 60 70 80 90 100

- People with lower education among family and close friends
- People with lower education among less close contacts such as neighbours and acquaintances
- People with lower education you meet professionally, through their job (e.g., delivery driver, waiter, cleaner, hairdresser, etc.)

Thermometers

thermo Please indicate how positive or negative you feel towards these groups, on a scale from 0-100 where 0 is extremely negative and 100 is extremely positive.

0 10 20 30 40 50 60 70 80 90 100

- Higher educated people
- Lower educated people
- Poor people
- Rich people
- Artists
- Immigrants

educationism The following questions are about your attitude towards people with different educational backgrounds. Not at all true of me Very much true of me

0 (1) 1 (2) 2 (3) 3 (4) 4 (5) 5 (6) 6 (7)

- I evaluate less and higher educated people in the same way
- When judging people I ignore their level of education
- I tend to judge people more positively if they have a college degree compared to when they do not have a college degree

- I think less of someone when they haven't finished their education

threat

Q2 To what extent do you agree or disagree with the following statements about people with practical or lower levels of education? With lower levels of education we mean people who dropped out or stopped studying after secondary school.

Strongly disagree (1) Somewhat disagree (2) Neither agree nor disagree (3)

Somewhat agree (4) Strongly agree (5)

- People with lower levels of education are threatening the values of our society
- The political preferences of those with lower levels of education will cause harm to society
- If lower educated people had more influence, we would have even more problems in our society
- The lower educated have too much influence in our society

Cultural preferences

film Please indicate for each film genre below how much you like it

Do not like at all

Like very much

0 1 2 3 4 5 6 7 8 9 10

- Documentaries
- Independent film (arthouse or cult film)
- Romcom (romantic comedy)
- Thriller
- Historic drama
- Action films (e.g., Marvel, Batman, James Bond)
- Adventure films

tv Please indicate for each type of TV programme below how much you like it

Do not like at all Like very much
0 1 2 3 4 5 6 7 8 9 10

- News and current affairs programmes
- Documentaries
- Soap series
- Talent shows (e.g., The voice, Next top model)
- Reality TV (e.g. Robinson, Temptation island)
- Crime series

music Please indicate for each music genre below how much you like it

Do not like at all Like very much
0 1 2 3 4 5 6 7 8 9 10

- Indie
- Pop (e.g., what is in the charts)
- Hiphop/Rap
- EDM (Electronic Dance Music)
- Jazz
- Rock and hardrock

Appendix B

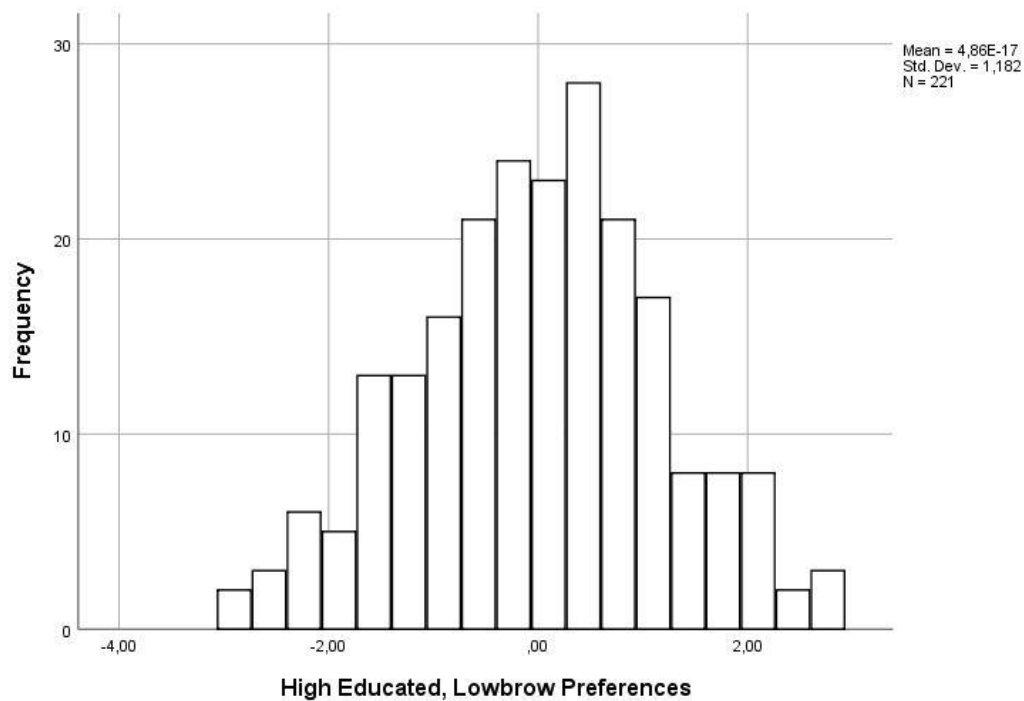
Assumption Check

Repeated Measures ANOVA

The assumptions of the Repeated Measures ANOVA include independence, normality and sphericity. Independence was given as the participants of the study only had to fill out the questionnaire once. Sphericity was achieved since there were only two levels of the dependent variable. As displayed in figure 3a-d, normality of the four dependent variables; high educated-lowbrow preference, high educated-highbrow preferences, low educated-lowbrow preferences and low educated-highbrow preference was met.

Figure 3a

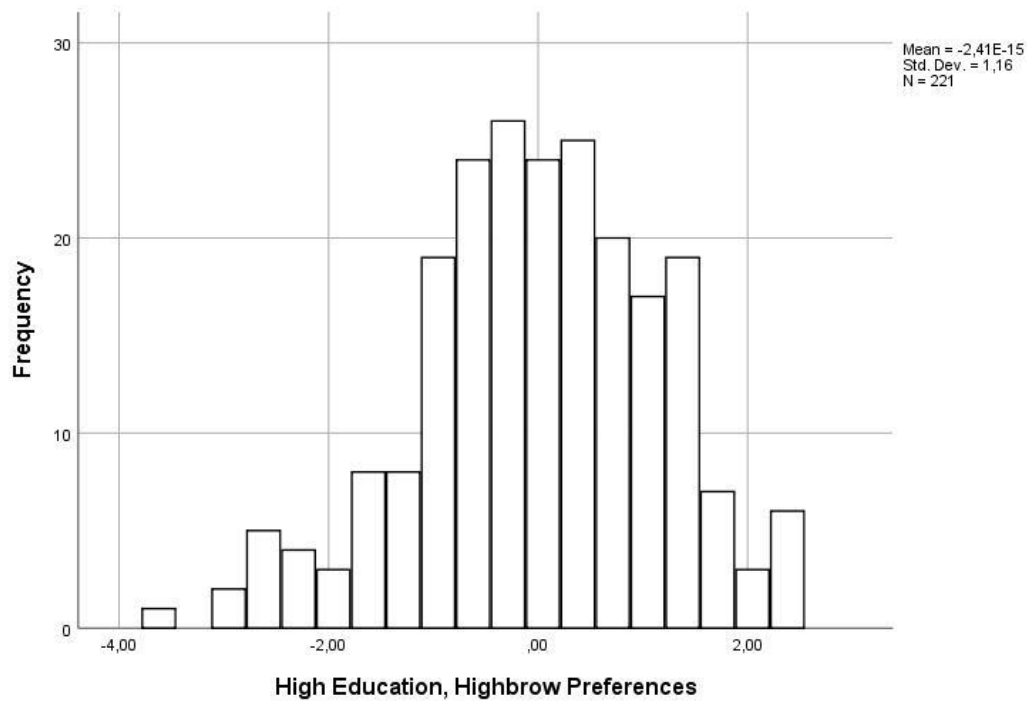
Normality of the dependent variable high educated-lowbrow preferences



Note. The x-axis displays the residuals of the evaluation of the profile high educated-lowbrow preferences.

Figure 3b

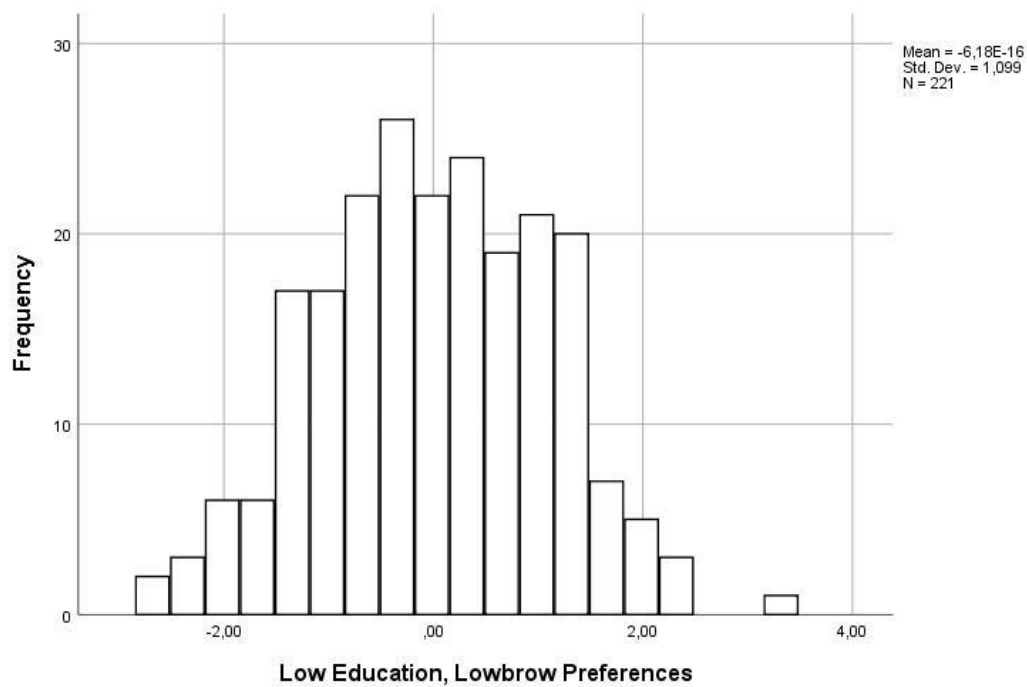
Normality of the dependent variable high educated-highbrow preferences



Note. The x-axis displays the residuals of the evaluation of the profile high educated-highbrow preferences.

Figure 3c

Normality of the dependent variable low educated-lowbrow preferences

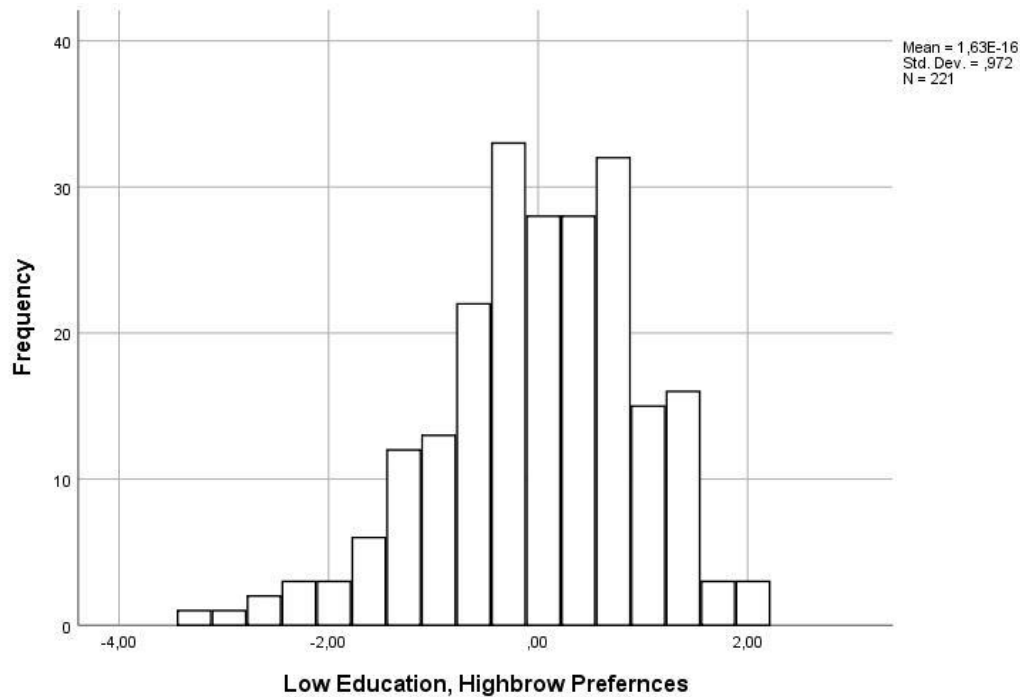


Footnote

Note. The x-axis displays the residuals of the evaluation of the profile low educated-lowbrow preferences.

Figure 3d

Normality of the dependent variable low educated-highbrow preferences



Note. The x-axis displays the residuals of the evaluation of the profile low educated-highbrow preferences.

Pearson Correlation

Appendix C

Figure 4a

Test Homoscedasticity for the Dependent Variable Low Education, Lowbrow Preferences

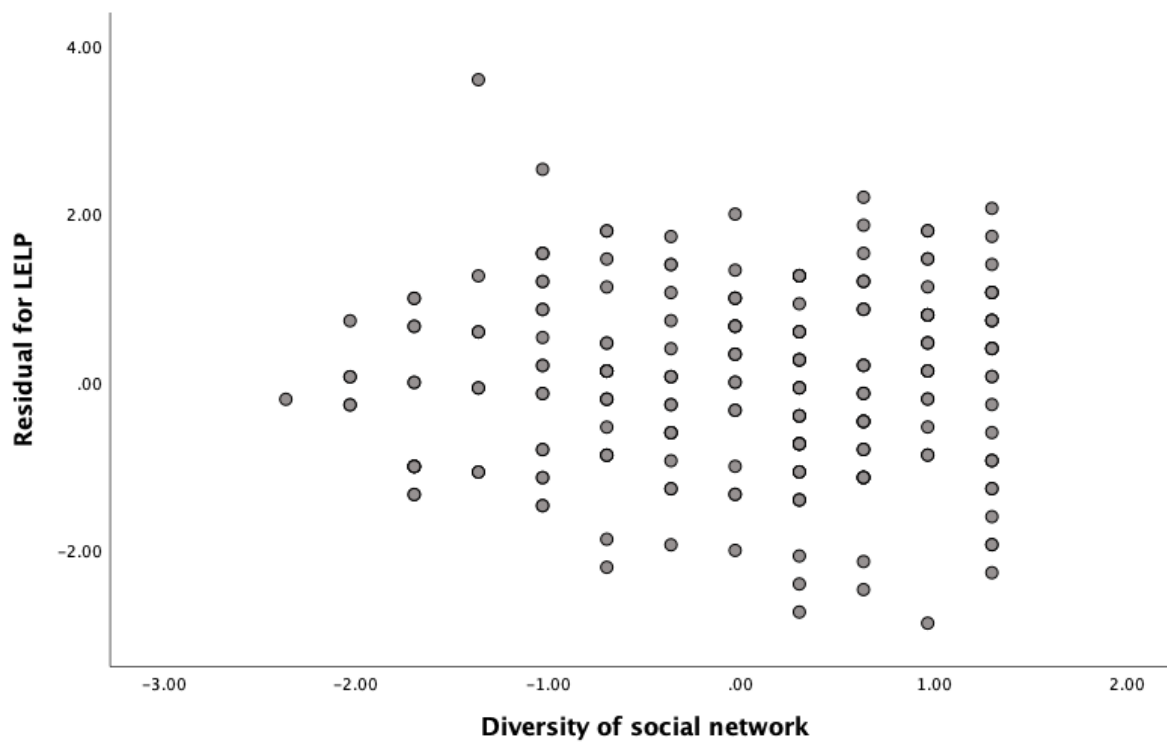


Figure 4b

Test Homoscedasticity for the Dependent Variable Low Education, Highbrow Preferences

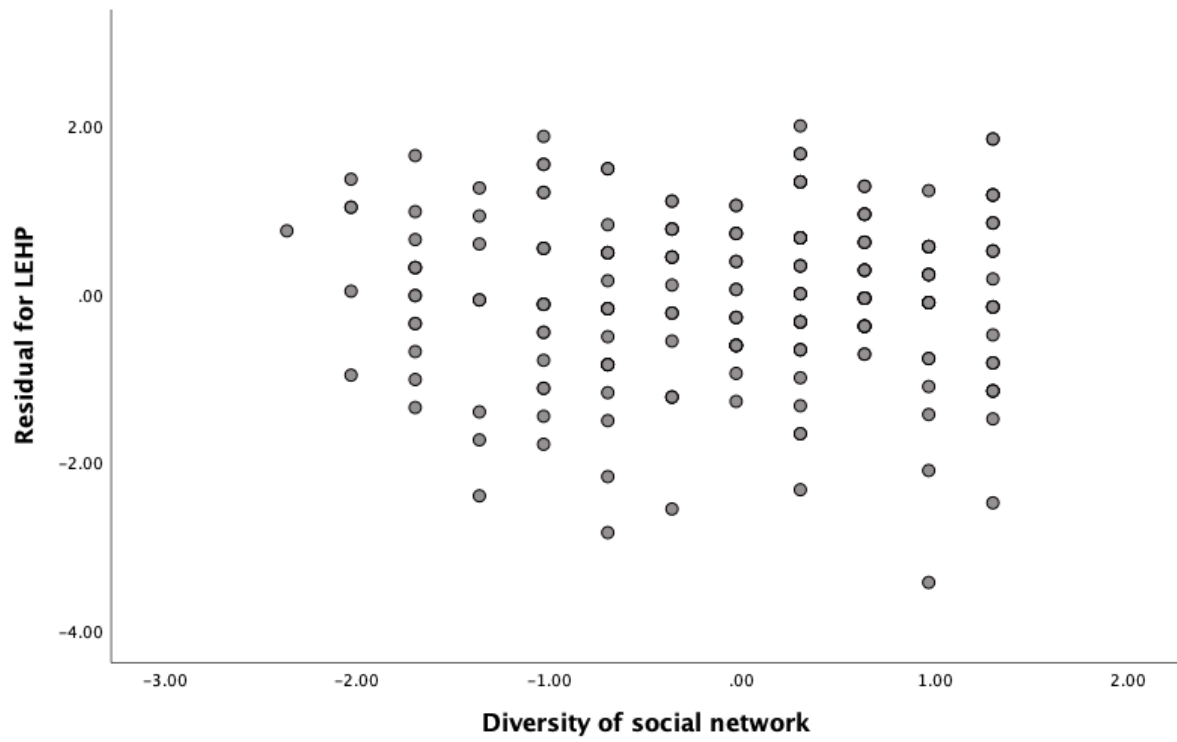


Figure 4c

Test Homoscedasticity for the Dependent Variable High Education, Lowbrow Preferences

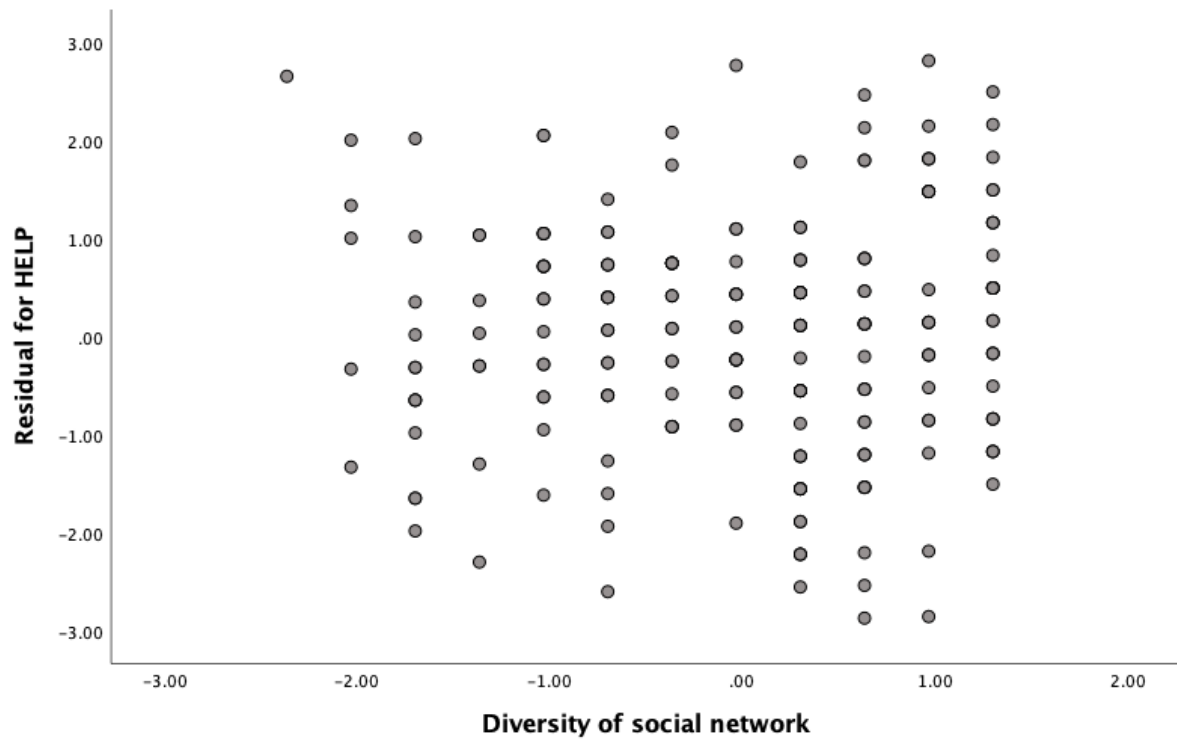


Figure 4d

Test Homoscedasticity for the Dependent Variable High Education, Highbrow Preferences

