Perceiving Teaching Roles Through Biased Eyes: The Effects of Gender and Age

DANEYKO, Olga and ZAVAGNO, Daniele <http://orcid.org/0000-0002-3624-5603>

social sciences

MDPI

Article

Perceiving Teaching Roles Through Biased Eyes: The Effects of Gender and Age

Olga Daneyko [1,*] and Daniele Zavagno [2]

[1] Institute of Social Sciences, Sheffield Hallam University, City Campus, Sheffield S11WB, UK
[2] Department of Psychology, University of Milano-Bicocca, P.zza dell'Ateneo Nuovo 1, 20126 Milano, Italy; daniele.zavagno@unimib.it
* Correspondence: olga.daneyko@shu.ac.uk

Abstract

This study examined how age and gender shape perceptions of suitability for educational roles. Participants were clustered into three groups based on their age. They completed an online study comprising five tasks: (1) Role Suitability Ratings with 7 point Likert scales for images of individuals varying in age and gender; (2) Role Preparation Ratings, indicating perceived preparation for each educational role measured on a 7 point scale; (3) the Gender Role Beliefs Questionnaire and (4) the Image of Aging Questionnaire, assessing explicit age and gender related biases; and (5) Face Age Estimation, assessing perceived age of the depicted individuals, i.e., the stimuli employed. Results showed that younger women are considered to be more suitable for Early Years and Primary school teaching roles, whereas older individuals and men were seen as more suitable for Secondary and University roles. Older adults, particularly women, were rated less favourably across all roles. Explicit gender beliefs aligned with implicit biases, manifesting in the undervaluation of young women for higher education roles. Female participants also showed bias against women, suggesting internalised stereotypes. These findings highlight the persistence of age- and gender-related stereotypes in perceptions of suitability for educational roles in the UK.

Keywords: ageism; gender bias; implicit bias; explicit bias

Academic Editor: Manijeh Daneshpour

Received: 15 September 2025
Revised: 19 October 2025
Accepted: 22 October 2025
Published: 27 October 2025

Citation: Daneyko, Olga, and Daniele Zavagno. 2025. Perceiving Teaching Roles Through Biased Eyes: The Effects of Gender and Age. *Social Sciences* 14: 628. https://doi.org/10.3390/socsci14110628

1. Introduction

Bias is a cognitive tendency that influences how individuals perceive, interpret, and respond to information, often resulting in partial or prejudiced judgments (Eysenck and Keane 2015). These biases can involve conscious beliefs and attitudes, or be implicit, operating automatically and unconsciously (Banaji and Greenwald 1995). Implicit biases are not necessarily aligned with an individual's declared values and may manifest even in the absence of explicit prejudice (Devine 1989). Research shows that such automatic processes are shaped by repeated exposure to social norms, environmental cues, and cultural stereotypes, which become ingrained and influence judgment outside of conscious awareness (Bargh and Chartrand 1999). Furthermore, in situations involving uncertainty or time pressure, individuals often rely on heuristics—mental shortcuts that simplify decision-making but can also produce systematic errors and biased outcomes (Tversky and Kahneman 1974).

Among the most pervasive forms of social categorisation are age and gender, both of which frequently serve as the basis for bias. Ageism, a term first introduced by Butler (1969), refers to discrimination based on age and often results from societal emphasis on youth and

productivity. Gender bias, similarly, is rooted in long-standing social beliefs about the expected roles and presumed capabilities of men and women. Masculinity is often associated with assertiveness, authority, and rationality, while femininity is linked with emotional sensitivity, nurturing, and warmth (Eagly and Wood 2012). These associations, though not based on actual ability, are socially reinforced and impact professional perceptions and opportunities.

The issue becomes even more complex when different biases intersect. Intersectionality theory (Crenshaw 1991) explains how multiple social identities—such as age, gender, race, and class—interact to produce unique and compounded forms of discrimination. For example, an older woman or a woman of colour may experience forms of bias not captured by examining gender or age in isolation. These intersecting prejudices reveal how structural inequalities operate not merely in parallel, but in ways that intensify disadvantage. Despite robust empirical evidence challenging stereotypes based on gender and age, such assumptions continue to shape expectations and decision-making in professional environments (Cuddy et al. 2008; Heilman 2012; Posthuma and Campion 2009). This is especially troubling given that job performance has been shown to depend more on individual skills, experience, and context than on demographic characteristics (van Aarde et al. 2017). Nevertheless, outdated beliefs persist and continue to shape how professional potential is perceived.

Even in environments presumed to be neutral or meritocratic, such as educational institutions, bias remains pervasive. Research has shown that deeply embedded social norms around age and gender continue to inform perceptions of role suitability, undermining the objectivity of academic selection processes (Llorens et al. 2021). While gender bias in education has often focused on the marginalisation of women, it is equally important to consider how traditional norms disadvantage men in certain roles. In England, men account for only 3% of early years educators and just 15.5% of primary school teachers. Nearly one-third of primary schools have no male classroom teachers at all (House of Commons Library 2022; Evening Standard 2024). This underrepresentation reflects how caregiving and emotionally intensive roles—culturally associated with femininity—are often viewed as inappropriate for men, limiting their access to such professions and perpetuating occupational segregation.

Building on the extensive body of research in cognitive and social psychology that highlights how biases shape social judgments, this study addresses long-standing methodological limitations in the field. While previous studies have primarily relied on qualitative data or self-report questionnaires, such approaches often fail to capture the rapid, unconscious nature of evaluative bias. Relatively recent contributions by Huang and Rothermund (2023) have offered the dual measurement of implicit and explicit bias using the lexical decision task to assess implicit age stereotypes and stereotypic trait ratings to assess explicit age stereotypes. However, the study focuses exclusively on age-related biases and examine general stereotypes within abstract settings. In contrast, the present research combines a visual-behavioural task, with targeted questionnaires on both ageism and gender bias, allowing for the simultaneous assessment of implicit (perceptual) and explicit judgments. Also, what makes this study distinct is its focus on the educational setting, where gender biases have been a longstanding issue (Tzovara et al. 2021). The study also explores a relatively underexamined factor: how assumptions about the preparation or training required for various educational roles may interact with these entrenched stereotypes. Moreover, by drawing on a diverse, intergenerational sample of evaluators, this research offers a unique insight into whether these biases persist across or differ between age cohorts—an angle that has not been fully explored in prior works.

The significance of this study lies not only in its novel methodological approach but also in its potential to contribute to social equity and policy-making. By investigating the dynamics of age- and gender-based biases in educational settings, this study offers valuable insights that can inform targeted interventions aimed at reducing such biases and fostering a more equitable environment.

The study addresses the following key research questions:

1. Does a person's age and gender affect how suitable they are seen for educational roles?
2. Do the age and gender of the person making the judgment influence how they evaluate others for educational roles?
3. Are people's implicit judgments and explicit beliefs about age and gender related?

2. Materials and Methods

2.1. Participants

The study included a total of 194 participants, comprising 75 men and 119 women, aged between 18 and 77 years. To explore potential differences across age groups, participants were categorised into three generational cohorts. Ninety-five participants were classified as young adults (ages 18–29; 34 men, 61 women). Forty-four were classified as adults (ages 30–49; with 16 men, 28 women). Fifty-five were categorised as senior adults (aged 50 and above; 25 men, 30 women).

Additional demographic data—though not central to the study—were also collected, including ethnicity and education level. The majority of participants (86.1%) identified as White British, while a smaller proportion represented a range of other ethnic backgrounds. In terms of educational attainment, 52% had completed higher education, 32% held a college or associate degree, and 15.5% had completed high school or less.

Younger participants were primarily recruited through the university's SONA participant pool system. Older participants were recruited via various social media platforms to ensure broader demographic representation. All participants took part voluntarily and provided informed consent prior to participating in the study.

2.2. Materials, Design and Procedure

This cross-sectional study employed a mixed design with three within-subject variables ($3 \times 2 \times 2$), descriptive of the visual stimuli employed. Stimuli were, in fact, twelve faces that varied along three dimensions (see Figure 1): Image_Age, i.e., the age of the person in the photo (iAge 3 levels, young adults, from here on "young"; adults, from here on "middle"; senior adults, from here on "senior"); Image_Gender (iGender, 2 levels, male, female); Image_Hair Colour (Hair Colour 2 levels, light, dark). The twelve facial images were created by employing FaceApp (a mobile AI application for editing faces) on a single young female face derived from the Amsterdam Database (Van der Schalk et al. 2011). Two between-subject variables were also considered: participant's age group and gender.

Implicit bias. The primary dependent variable was the rating for teaching role suitability: participants were asked to rate the suitability of the facial images with regard to four teaching roles: Early Years Teacher (early year), Primary School Teacher (primary), Secondary School Teacher (secondary), and University Lecturer (university). Ratings were made using a 7-point Likert scale ranging from "very unlikely" to "very likely." Participants were instructed to respond as quickly as possible based on their first impressions without overthinking. This task captures perceptual-based associations, reflecting in implicit bias. The prompt accompanying an image read: "How likely is it that the person in the picture is suitable for the educational roles listed below?" The teaching roles were listed always in the same order, from the earlier top to the later bottom.

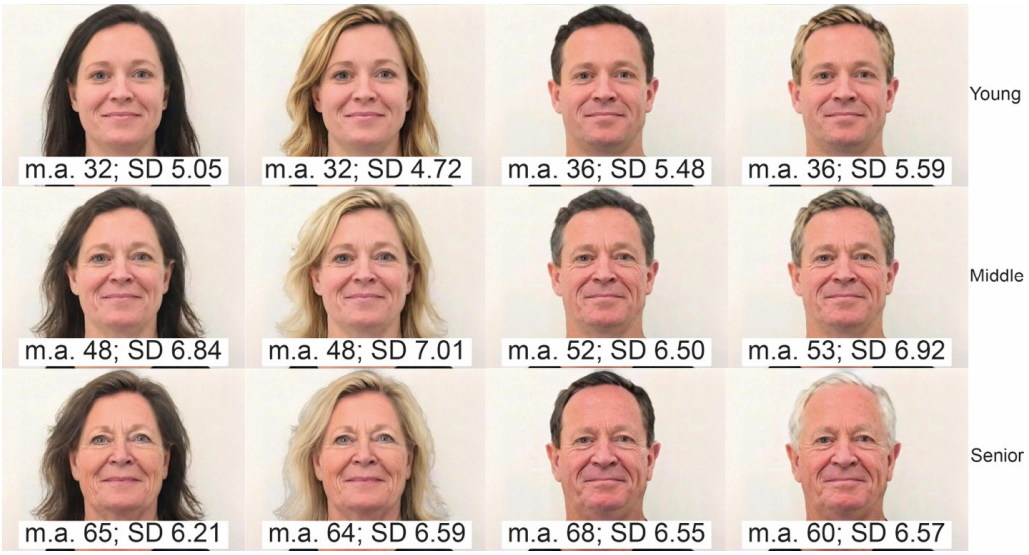

Figure 1. The twelve facial images employed with mean age (m.a.) evaluations by participants and standard deviations.

Explicit bias measures: Participants' explicit biases regarding gender role and aging were assessed using self-report questionnaires. First, Gender Role Beliefs Scale Questionnaire (Brown and Gladstone 2012) measures beliefs about gender roles. It assessed the degree to which individuals held traditional versus progressive views about gender in areas such as work, family, and education. Participants responded to each statement using a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." An example item from the scale is: "Women with children should not work outside the home if they don't have to financially".

To assess explicit biases related to older ages, participants answered to the Image of Aging Questionnaire (Levy et al. 2004): for this task, participants were presented with a list of words and phrases and were asked to rate how closely each item (which could possess either a positive or a negative connotation) matched their image of a typical 65-year-old person. Ratings were made on a scale from 0 to 6, where 0 indicated the word was not at all characteristic and 6 indicated it was highly characteristic of a person of that age.

To test for role preparation, participants were asked to rate the level of education and training that they believed was required for each educational role. Ratings were made on a 7-point Likert scale ranging from 1 ("Very Little") to 7 ("Extensive"). Finally, each visual stimulus was presented again one at a time in random order and participants were asked to estimate the age of the individuals in the images by digiting the numerical age they believed best matched each person's appearance (Figure 1).

The study lasted approximately 20 min and was completed online through Qualtrics. Participants first reviewed an introductory screen explaining the purpose of the study, the tasks involved, and their rights (e.g., voluntary participation and withdrawal). Participants then completed the five tasks in the specified order:

Task 1: Role Suitability Ratings (the visual stimuli within the task were presented in random order).
Task 2: Role Preparation Ratings.
Task 3: Gender Role Beliefs Scale.
Task 4: The Image of Aging Scale.
Task 5: Face Age Estimation.

After completing all tasks, participants were debriefed with a text explaining more in detail the purpose of the study and they were provided with contact information for further questions or support.

3. Results

The results are presented in three main sections:

Section 1: Tests 3 and 4—Gender Role Beliefs Scale and the Image of Aging Scale (Explicit Biases)
Section 2: Tests 1 and 5—Role Suitability Ratings (Implicit Bias)
Section 3: Test 2—Role Preparation Ratings

3.1. Gender Role Beliefs Scale and the Image of Aging Scale (Explicit Biases)

Cronbach's alpha indicated an acceptable level of internal validity for the Gender Role Beliefs Scale ($\alpha = 0.815$). An ANOVA was conducted on participants' scores with participants' age (pAge) and gender (pGender) as between-subjects variables. A significant main effect was found for pGender: $F(1, 188) = 20.35$, $p < 0.001$, $\eta^2_p = 0.098$. Factor pAge and its interaction with P-Gender were not significant (respectively, $p = 0.06$ and $p = 0.50$). Figure 2a presents the mean scores distinguished by pAge and pGender.

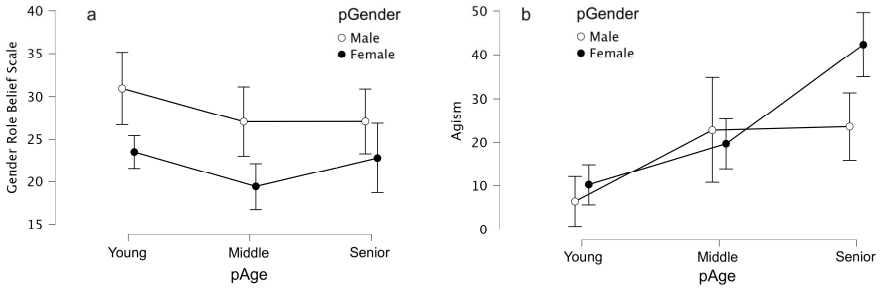

Figure 2. In both graphs, "middle" stands for "adults", i.e., the intermediate aged adults as in adult males and adult females. Graph (**a**) shows Gender Role Belief mean scores distinguished by pAge and pGender. In this graph, the higher the score the more progressive in attitudes towards gender equality. Post hoc with Bonferroni corrections were conducted; comparisons revealed significant differences between young adult males and females of all three age groups: young female adults $t(188) = 3.755$, $p = 0.003$, d = 0.76; female adults $t(188) = 4.904$, $p < 0.001$, d = 1.17; senior female adults $t(188) = 3.533$, $p = 0.008$, d = 0.71. A significant difference was also found between senior adult males and adult females: $t(188) = 3.023$, $p = 0.040$, d = 0.94. Overall, female participants tended to score lower, reflecting more traditional explicit views on gender roles. Graph (**b**) shows Ageism scores (explicit bias) distinguished by participants' age and gender. In this scale, higher scores indicate more positive attitudes toward ageism Bonferroni corrections were applied for multiple comparisons, revealing the following significant differences: young adult males vs adult males ($t(188) = -3.080$, $p = 0.036$, d = 0.9); young adult males vs. senior adult males ($t(188) = -3.248$, $p = 0.021$, d = 0.89; young adult males vs. adult females ($t(188) = -3.531$, $p = 0.015$, d = 1); young adult males vs. senior adult females ($t(188) = -8.030$, $p < 0.001$, d = 2.09); adult males vs. senior adult females ($t(188) = -3.481$, $p = 0.009$, d = 0.96); senior adult males vs. senior adult females ($t(188) = -4.268$, $p < 0.001$, d = 1.10); young adult females vs. senior adult females ($t(188) = -7.808$, $p < 0.001$, d = 1.66); adult females vs. senior adult females ($t(188) = -4.400$, $p < 0.001$, d = 1.21). Overall, the pattern shows that women's positive attitudes toward ageism increases with age, while men's attitude slightly rises from young to middle age and then remains unchanged. Error bars represent 95.0% confidence intervals.

With regard to the Ageism Scale, Cronbach's alpha indicated an acceptable level of internal validity for both negative ($\alpha = 0.899$) and positive items of the questionnaire ($\alpha = 0.841$). The final score was calculated by subtracting the total of negative item scores from the total of positive item scores. An ANOVA was conducted on the final scores with

pAge and pGender as fixed factors. Results showed significant main effects for both factors and their interaction: pAge: $F(2, 188) = 29.370$, $p < 0.001$, $\eta^2_p = 0.238$; pGender: $F(1, 188) = 8.352$, $p = 0.04$, $\eta^2_p = 0.043$; pAge*pGender: $F(2, 188) = 5.169$, $p = 0.007$, $\eta^2_p = 0.052$. Figure 2b shows mean Ageism Scale scores distinguished by pAge and pGender.

Spearman's test shows that there is no correlation between gender role beliefs and the ageism scale ($p = 0.9$).

3.2. Role Suitability Ratings (Implicit Bais)

Role Suitability was assessed through a rating task, where participants evaluated the suitability of individuals in the images for four educational roles. A mixed-design ANOVA was conducted, incorporating four within-subject factors: Teaching Role, Image Age (iAge), Image Gender (iGender), and Hair Colour, and two between-subject factors: pGender, and pAge. In addition, participants' scores on the Gender Role Beliefs Scale and the Image of Aging Scale were considered as covariates. Gender Role Beliefs Scale scores did not show significant interactions with the within-subject variables. Therefore, a new ANOVA was conducted without including this variable as a covariate. When sphericity assumptions were violated, Greenhouse–Geisser corrections were applied. With regard to the interactions involving the Ageism Scale, there were significant effects with Teaching Role and iGender: Teaching Role: $F(1.809, 336.500) = 5.226$ $p = 0.008$, $\eta^2_p = 0.027$; iGender: $F(1, 186) = 8.817$, $p = 0.003$, $\eta^2_p = 0.045$. This suggests an impact of attitudes related to older ages on mean teaching role scores.

All within and between factors revealed significant main effects for all factors: Teaching Role $F(1.796, 334.005) = 40.994$, $p < 0.001$, $\eta^2_p = 0.181$; iAge $F(1.537, 285.859) = 32.551$, $p < 0.001$, $\eta^2_p = 0.149$; iGender $F(1, 186) = 44.127$, $p < 0.001$, $\eta^2_p = 0.192$; Hair Colour $F(1, 186) = 19.099$, $p < 0.001$, $\eta^2_p = 0.061$; pAge $F(2, 186) = 5.916$, $p = 0.003$, $\eta^2_p = 0.06$; pGender $F(1, 186) = 6.026$, $p = 0.015$, $\eta^2_p = 0.031$. The main effects of the two between-subjects variables are explained by the fact that mean ratings by female participants are higher and that mean ratings increase with age group (Figure 3).

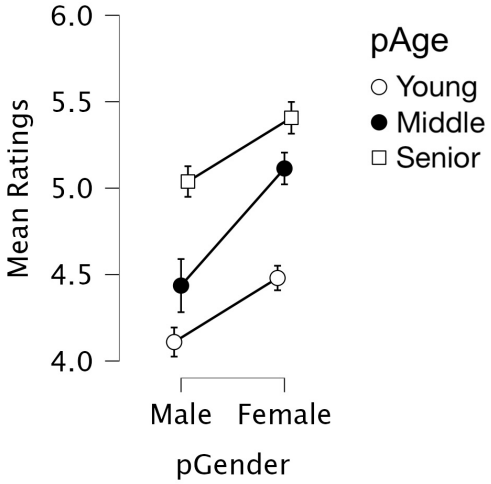

Figure 3. The effect of participant's age and gender on ratings. Female participants generally provided higher suitability ratings than male participants. In addition, mean ratings increased with participant age group, suggesting that older participants tended to evaluate role suitability more positively. Error bars represent standard errors.

The goal of our study is to test the effect of gender and age on teaching role beliefs; we are therefore mostly interested in two- and three- way interactions between Teaching Role and the other within- and between-subjects variables. With regard to the two-way interaction Teaching Role interacted significantly only with iGender and iAge. Teaching

Role*Image Gender: F(1.844, 379.087) = 75.575, $p < 0.001$, $\eta^2_p = 0.289$; Teaching Role*Image Age: F(2.975, 553.305) = 35.662, $p < 0.001$, $\eta^2_p = 0.161$.

With regard to the three-way interaction, the following interactions were significant: Teaching Role*pGender*pAge F(3.591, 334.005) = 12.115, $p < 0.001$, $\eta^2 = 0.115$; Teaching Role*iAge*pAge F(3.979, 368.087) = 2.631, $p = 0.035$, $\eta^2_p = 0.028$; Teaching Role*iGender*iAge (see Figure 4) F(4.266, 793.488) = 12.879, $p < 0.001$, $\eta^2_p = 0.065$; Teaching Role*iAge*Hair Colour F(5.008, 931.403) = 4.033, $p < 0.001$, $\eta^2_p = 0.025$. The last three-way interaction is basically driven by blonde senior individuals receiving lower mean ratings compared to middle individuals. Altogether, results suggest that participants consistently showed bias in rating role suitability based on individuals' gender, age, and hair colour

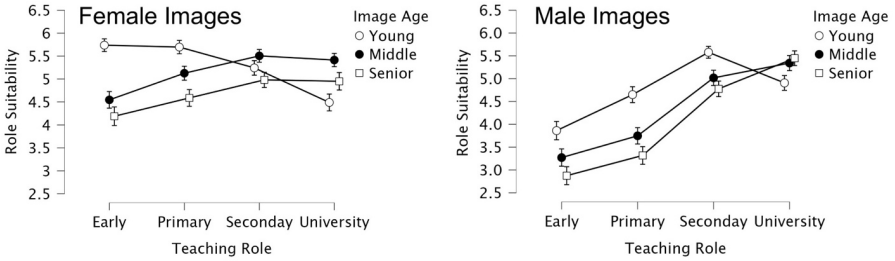

Figure 4. The graphs show the interaction between *Teaching Role* and *Image Age*, distinguished by *Image Gender*. Younger female images were rated as highly suitable for early years teaching roles, with ratings dropping significantly for higher-level teaching roles. In contrast, middle-aged and senior-aged females were rated less suitable for early years and primary school teaching roles, with senior females receiving lower ratings across all teaching roles compared to middle-aged females. All male images, on the other hand, received lower ratings for early years teaching roles, but ratings increased for secondary and university roles, with a notable exception: young male images received a relatively significant drop at the university level, but with mean ratings still higher than their female counterparts. Error bars represent standard errors.

3.3. Role Preparation Ratings

A repeated-measures ANOVA was conducted on role preparation ratings (with Greenhouse-Geisser sphericity corrections) to examine how participants evaluated the level of preparation required for each educational role, with Role Preparation (Early Years, Primary, Secondary, University Teaching Roles) as a within-subjects factor and pAge and pGender as between-subjects factors (see Figure 5). The analysis revealed a significant main effect for all factors: Role Preparation F(1.871, 351.729) = 76.73, $p < 0.001$, $\eta^2_p = 0.29$; pAge F(2, 188) = 16.651, $p < 0.001$, $\eta^2_p = 0.15$; pGender F(1, 188) = 8.561, $p = 0.004$, $\eta^2_p = 0.04$. Both between-subjects factors interacted significantly with Teaching Role (see Figure 5): Teaching Role*pAge F(3.742, 351.729) = 2.545, $p = 0.043$, $\eta^2_p = 0.02$; Teaching Role*pGender F(1.871, 351.729) = 7.036, $p < 0.001$, $\eta^2_p = 0.03$.

Post hoc Tukey comparisons computed on Teaching Role Preparation scores showed all pairwise comparisons were statistically significant, except between Secondary and University Teaching Roles. Early Years (M = 4.39, SD = 1.69) was rated as requiring significantly less preparation than Primary (M = 4.99, SD = 1.33), Secondary (M = 5.75, SD = 1.10), and University (M = 5.98, SD = 1.38), all $p < 0.001$. Although the difference between Early Years Teaching and Primary Teaching Roles was significant, the small gap between their mean values suggests these roles were perceived similarly. Primary was rated as less demanding than Secondary and University ($p < 0.001$), with no significant difference found between Secondary and University ($p = 0.064$). These results indicate a trend of progressively increasing perceived preparation demands from Early Years to Primary, followed by Secondary and University.

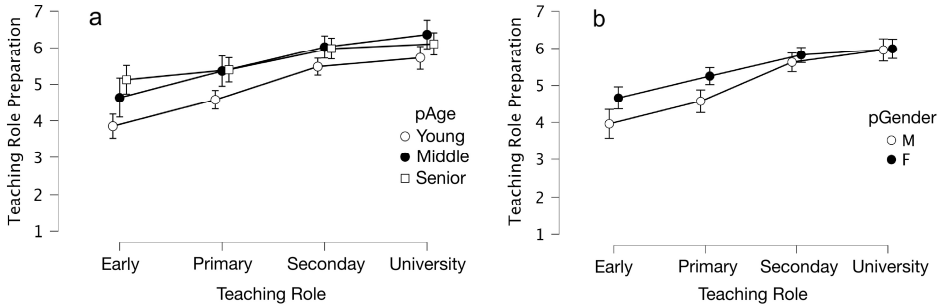

Figure 5. The effects of participants' age and gender on the preparation considered to be needed to cover the four teaching roles. Specifically, the younger generation scored lower for all roles compared to the two older generations (**a**). Among males, lower scores for early years teaching and primary teaching indicated that these roles were perceived as requiring less preparation (**b**). Error bars represent standard errors.

4. Discussion

This study aimed to investigate how age and gender influence perceptions of suitability for educational roles and whether these perceptions are shaped by implicit and explicit biases. Specifically, we sought to answer three key research questions:

1. Does a person's age and gender affect how suitable they are seen for educational roles?
2. Do the age and gender of the person making the judgment influence how they evaluate others for educational roles?
3. Are people's implicit judgments and explicit beliefs about age and gender related?

Findings indicate that both the age and gender of individuals depicted—and of those making the evaluations—shaped how suitable someone was perceived for a particular teaching role. Younger female figures were perceived as more appropriate for Early Years and Primary teaching roles, while male and older individuals were favoured for Secondary and University-level positions. These patterns remained consistent across participant demographics, suggesting that deeply held societal stereotypes continue to shape how we judge others' professional capabilities. These findings answer the first research question by showing that both an individual's age and gender affect perceptions of their suitability for educational roles. Participants appeared to rely on common societal assumptions—namely, that young women are naturally suited to nurturing roles, while young men and older individuals are more appropriate for higher-status teaching positions. These perceptions reflect the logic of the Role Congruity theory (Eagly and Karau 2002), which suggests that bias emerges when an individual's attributes are seen as misaligned with the stereotypical expectations of a particular role. Importantly, these results indicate intersectional bias: for young women, disadvantage may emerge in contexts requiring perceived professional competence or leadership, highlighting the directional nature of bias depending on both age and gender.

Addressing the second research question, participants' age and gender did not significantly affect teaching role ratings. Overall, response patterns were consistent across both gender and age groups, with the following pattern: In terms of gender, female participants gave slightly higher ratings to female images across all educational roles. In terms of age, young participants appeared to be more conservative compared to the two older generations.

The third question examined the relationship between implicit and explicit biases, revealing a complex and at times contradictory connection between the two. Explicit measures, such as the Gender Role Beliefs Scale, indicated that many participants held traditional views on gender roles. These views were reflected in their Role Suitability ratings, particularly in the consistent downgrading of young female for higher education roles

compared to male peers. This pattern suggests an association between youth, femininity, and lower professional competence. One possible explanation for this trend is the enduring cultural expectation that women in early adulthood prioritise family responsibilities, which may lead to assumptions that they are less committed or available for "demanding" roles. Interestingly, this pattern was especially pronounced among female participants. This may suggest that traditional gender beliefs are internalised and perpetuated even by those they disadvantage. In contrast, male participants appeared somewhat more egalitarian on the explicit measure; however, their behavioural ratings still showed bias against female individuals. This discrepancy between self-reported beliefs and behavioural outcomes highlights how individuals may consciously endorse gender equality yet unconsciously act in ways that reinforce traditional stereotypes (Huang and Rothermund 2023).

Our results are consistent with broader research showing how bias affects professional evaluations, particularly in how second-order facial features can influence perceptions of competence (Paulesu and Actis-Grosso 2024). For instance, student evaluations of teaching frequently rate male instructors more favourably than equally performing female instructors (Boring 2017; MacNell et al. 2015). Similarly, hiring studies reveal that male applicants are often viewed as more competent or deserving of higher pay, even when qualifications are identical (Moss-Racusin et al. 2012). These judgments are rarely objective; they are shaped by subjective norms, informal networks, and culturally coded terms like "collegiality" or "fit" (O'Meara et al. 2023), which often reflect dominant—typically white, male, and middle-aged—ideals. These patterns are part of a broader structural issue, as highlighted by Llorens et al. (2021), who argue that gender bias in academia is not a singular, isolated problem but rather a cumulative, lifelong challenge. Their work outlines how women encounter barriers at every stage of their academic journey—from hiring and mentoring to promotion and recognition—leading to persistent inequalities in opportunity, visibility, and mental well-being. The findings from our study align with this systemic perspective, demonstrating how early professional judgments based on gender and age contribute to long-term disadvantages that compound over time.

The unequal evaluation of roles in education reflects deeper systemic and cultural structures. For example, care-related professions like Early Years teaching are often feminised and undervalued, both socially and financially. Our findings echo this pattern: Early Years and Primary teaching was viewed as requiring the least preparation, reinforcing stereotypes that these roles are "natural" for women and undeserving of high professional role. This dynamic not only discourages men from entering such fields but also perpetuates the devaluation of the professions themselves. These statistics are mirrored in our findings, where male candidates were often rated as less suitable for Early Years Teaching roles. The importance of fostering inclusivity within such fields cannot be overstated. Initiatives like those from the Organization for Human Brain Mapping (OHBM), which actively promotes diversity and inclusivity, exemplify efforts to address systemic disparities and create more equitable environments in academia (Tzovara et al. 2021). These efforts serve as models for broader initiatives in educational settings that could help mitigate biases and increase the representation of underrepresented groups in both teaching and research roles.

Ridgeway (2011) contributes to understanding this persistence of gender inequality, which is maintained through the everyday use of gender stereotypes in organizing social relations. Ridgeway argues that although legal, political, and institutional processes might reduce overt inequality, deeply embedded gender stereotypes continue to shape judgments about individuals' suitability for roles, even in contexts of progressive change. This cultural "lag," where stereotypes evolve more slowly than material conditions, provides a useful lens through which to interpret the ongoing biases observed in this study. The findings here show that these ingrained stereotypes—despite changes in societal roles and legal

protections—continue to inform evaluative judgments about both men and women in professional settings.

Finally, the findings of the study highlight a persistent bias against older adults, particularly older women, across all evaluated roles. This suggest that older women may face compounded disadvantage, as both age and gender jointly influence perceptions of competence and suitability, creating unique barriers that differ from those experienced by men or younger women. This aligns with McGuire's (2017) assertion that widespread ageist attitudes stem, in part, from insufficient education about aging throughout the life course. Participants' lower evaluations of senior individuals suggest that aging continues to be viewed through a deficit-based lens, reinforcing stereotypes rather than recognizing potential for growth and fulfilment in later life. This pattern can also be understood through the Stereotype Content Model (Cuddy et al. 2008), which posits that social groups are evaluated along two fundamental dimensions: warmth and competence. Older adults, especially older women, are often stereotyped as high in warmth but low in competence, a combination associated with feelings of pity rather than respect or admiration. In workplace contexts, such perceptions may contribute to assumptions that older individuals are less capable, less adaptable, or less suited for high-responsibility roles. These results support the call for early and ongoing aging education as a strategy to reshape societal perceptions and mitigate ageism.

Taken together, these findings demonstrate the indispensable value of an intersectional perspective. Age and gender combine to shape perceptions of professional suitability in ways that are not apparent when each factor is considered separately. This differentiation highlights that disadvantage is directional and context-dependent, and that ignoring these intersections risks masking the structural and social mechanisms that perpetuate inequality. Recognizing these nuanced patterns is essential for both research and practice, as it allows targeted interventions to address the precise forms of bias experienced by different groups.

5. Conclusions

In this study, by employing stimuli in which first order facial features are consistent across gender and ages, we show how factors such as gender and age still affect people's perception on the suitability for teaching roles. This study contributes to a deeper understanding of how both age and gender biases, operating at implicit and explicit levels, shape evaluative judgments in educational contexts. Using a dual-method approach and drawing from a diverse, intergenerational sample, the research reveals that participants' judgments about individuals' suitability for educational roles are influenced by entrenched stereotypes. Importantly, these biases are not purely unconscious; many participants, particularly women, expressed traditional views that disproportionately disadvantaged specifically younger women, reflecting widely internalised social norms. These findings highlight actionable implications for educators, hiring committees, and institutional leaders. Addressing implicit biases requires targeted training that goes beyond surface-level awareness, such as workshops that include self-assessment tools like Implicit Association Tests, guided reflection, and scenario-based learning to help individuals identify and manage unconscious associations that may influence judgments.

However, mitigating explicit biases, which are often consciously held and reinforced by societal norms, demands more structural reforms. These include anonymised recruitment practices, the use of diverse and representative selection panels, and the implementation of standardised evaluation rubrics tied to role-specific competencies.

Critically, institutions must adopt more comprehensive and integrated approaches that treat biases not only as an individual issue but as a systemic one. This means embedding equity principles across policies, practices, and leadership structures ensuring that inclusion

is not a one-off intervention but a sustained institutional commitment. An intersectional approach strengthens these efforts by recognizing how overlapping social identities shape professional opportunities and barriers, making interventions more effective and equitable. Without such holistic strategies, efforts to reduce bias may fall short or even reinforce the very disparities they seek to address. Furthermore, the undervaluation of early educational roles, often viewed as requiring less expertise or commitment, is closely tied to these biases and must be addressed through fair and transparent pay structures. Ensuring decent compensation for such roles is not only a matter of equity but also a necessary step toward professionalising early education and retaining skilled educators. At a broader level, these issues demand attention at the policy and institutional scales. National education policies should promote diversity and inclusion benchmarks, equity-linked funding, and transparent hiring and promotion practices. Tackling these deeply rooted biases is critical not only for ensuring individual opportunity, but also for strengthening institutional integrity, workforce retention, and achieving long-term educational equity.

6. Limitations

While this study provides valuable insights into the dynamics of implicit and explicit biases in educational contexts, it is not without its limitations. First, the online format of the study, though convenient and broad reaching, may have introduced biases related to self-selection.

Second, racial and ethnic diversity within the sample was limited: the study predominantly included participants from certain demographic groups identified as White British 86.1%, which means that the results may not fully capture the nuances of how biases manifest across different racial or ethnic backgrounds. Future studies should aim for more diverse and representative samples to ensure broader applicability of the findings.

Finally, stimuli proposed only images of white individuals, distinguished by a second order feature, hair colour, that had limited effects on ratings. Moreover, while the research addresses age and gender biases, there is potential for future studies to explore other dimensions of bias, such as those based on disability, socioeconomic status, and sexual orientation, to paint a more complete picture of the biases that shape educational evaluations.

Author Contributions: Conceptualization, O.D. and D.Z.; methodology, O.D. and D.Z.; software, O.D.; validation, O.D. and D.Z.; formal analysis, O.D. and D.Z.; investigation, O.D.; resources, O.D.; data curation, O.D.; writing—original draft preparation, O.D. and D.Z.; writing—review and editing, O.D. and D.Z.; visualization, D.Z.; supervision, O.D.; project administration, O.D.; funding acquisition, O.D. All authors have read and agreed to the published version of the manuscript.

Funding: The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Library Research Support at Sheffield Hallam University.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki. Ethical approval for this study was obtained from the Sheffield Hallam University Research Ethics Committee, protocol ER78847712 (14 May 2025).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data that support the findings of this study will be openly available in SHU Research Data Archive at https://shurda.shu.ac.uk.

Conflicts of Interest: The authors declare no conflicts of interest.

References

Banaji, Mahzarin. R., and Anthony G. Greenwald. 1995. Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology* 68: 181–98. [CrossRef] [PubMed]

Bargh, John A., and Tanya L. Chartrand. 1999. The unbearable automaticity of being. *American Psychologist* 54: 462–79. [CrossRef]

Boring, Anne. 2017. Gender biases in student evaluations of teaching. *Journal of Public Economics* 145: 27–41. [CrossRef]

Brown, Michael J., and Nancy Gladstone. 2012. Development of a short version of the gender role beliefs scale. *International Journal of Psychology and Behavioral Sciences* 2: 154–58. [CrossRef]

Butler, Robert N. 1969. Age-ism: Another form of bigotry. *The Gerontologist* 9: 243–46. [CrossRef] [PubMed]

Crenshaw, Kimberle. 1991. Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review* 43: 1241–99. [CrossRef]

Cuddy, Amy J. C., Susan T. Fiske, and Peter Glick. 2008. Warmth and competence as universal dimensions of social perception: The Stereotype Content Model and the BIAS Map. *Advances in Experimental Social Psychology* 40: 61–149. [CrossRef]

Devine, Patricia G. 1989. Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology* 56: 5–18. [CrossRef]

Eagly, Alice H., and Steven J. Karau. 2002. Role congruity theory of prejudice toward female leaders. *Psychological Review* 109: 573–98. [CrossRef]

Eagly, Alice H., and Wendy Wood. 2012. Social role theory. In *Handbook of Theories of Social Psychology*. Edited by P. A. M. Van Lange, A. W. Kruglanski and E. T. Higgins. London: Sage, vol. 2, pp. 458–76.

Evening Standard. 2024. Just 15% of Primary Teachers Are Male, Study Shows, April 18. Available online: https://www.standard.co.uk/ (accessed on 15 June 2025).

Eysenck, Michael W., and Mark T. Keane. 2015. *Cognitive Psychology: A Student's Handbook*, 7th ed. London: Psychology Press.

Heilman, Madeline E. 2012. Gender stereotypes and workplace bias. *Research in Organizational Behavior* 32: 113–35. [CrossRef]

House of Commons Library. 2022. *Teachers in England: Teacher Statistics*. London: House of Commons Library. Available online: https://commonslibrary.parliament.uk/research-briefings/cdp-2022-0197/ (accessed on 15 June 2025).

Huang, Tingting, and Klaus Rothermund. 2023. Implicit and explicit age stereotypes assessed in the same contexts are still independent. *Experimental Aging Research* 49: 41–57. [CrossRef]

Levy, Becca R., Stanislav V. Kasl, and Thomas M. Gill. 2004. Image of aging scale. *Perceptual and Motor Skills* 99: 208–10. [CrossRef]

Llorens, Anaïs, Athina Tzovara, Ludovic Bellier, Ilina Bhaya-Grossman, Aurélie Bidet-Caulet, William K. Chang, Zachariah R. Cross, Rosa Dominguez-Faus, Adeen Flinker, Yvonne Fonken, and et al. 2021. Gender bias in academia: A lifetime problem that needs solutions. *Neuron* 109: 2047–74. [CrossRef]

MacNell, Lillian, Adam Driscoll, and Andrea N. Hunt. 2015. What's in a name: Exposing gender bias in student ratings of teaching. *Innovative Higher Education* 40: 291–303. [CrossRef]

McGuire, Sandra L. 2017. Aging education: A worldwide imperative. *Creative Education* 8: 1878–91. [CrossRef]

Moss-Racusin, Corinne. A., John F. Dovidio, Victoria L. Brescoll, Mark J. Graham, and Jo Handelsman. 2012. Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences* 109: 16474–79. [CrossRef] [PubMed]

O'Meara, KerryAnn, Lindsey Templeton, Damani K. White-Lewis, Dawn Culpepper, and Julia Anderson. 2023. The safest bet: Identifying and assessing risk in faculty selection. *American Educational Research Journal* 60: 232–68. [CrossRef]

Paulesu, Federico, and Rossana Actis-Grosso. 2024. Not only blonde hair: Possible effects of different styles of make-up on gender-science stereotype. *Psihološka obzorja* 33: 169–81. [CrossRef]

Posthuma, Richard A., and Michael A. Campion. 2009. Age stereotypes in the workplace: Common stereotypes, moderators, and future research directions. *Journal of Management* 35: 158–88. [CrossRef]

Ridgeway, Cecilia L. 2011. *Framed by Gender: How Gender Inequality Persists in the Modern World*. New York: Oxford University Press.

Tversky, Amos, and Daniel Kahneman. 1974. Judgment under uncertainty: Heuristics and biases. *Science* 185: 1124–31. [CrossRef] [PubMed]

Tzovara, Athina, Ishmael Amarreh, Valentina Borghesani, M. Mallar Chakravarty, Elizabeth DuPre, Christian Grefkes, Amelie Haugg, Lee Jollans, Hyang Woon Lee, Sharlene D. Newman, and et al. 2021. Embracing diversity and inclusivity in an academic setting: Insights from the Organization for Human Brain Mapping. *NeuroImage* 229: 117742. [CrossRef] [PubMed]

van Aarde, Ninette, Dean Meiring, and Brenton M. Wiernik. 2017. The validity of the Big Five personality traits for job performance: Meta-analyses of South African studies. *International Journal of Selection and Assessment* 25: 223–39. [CrossRef]

Van der Schalk, Job, Skyler Hawk, Agneta H. Fischer, and Bertjan Doosje. 2011. Moving Faces, Looking Places: Validation of the Amsterdam Dynamic Facial Expression Set (ADFES). *Emotion* 11: 907–20. [CrossRef] [PubMed]