# Shouldering Childhood: Early Behavioral Traits and Discrimination Concerns

Maria Rubio-Cabañez[1] and Josep Serrano-Serrat[2]

**Abstract**

This study examines how childhood emotions, traits, and behaviors influence concerns about gender inequality and racism in young adulthood. Drawing on the social psychology and social science literature, it examines whether childhood behavioral traits measured by the Strengths and Difficulties Questionnaire (SDQ) influence concerns about discrimination. Using the Growing Up in Ireland longitudinal dataset, the study shows that, among native males, internalizing behaviors in childhood (such as loneliness and frequent worry) correlate positively with later concerns about discrimination, while externalizing behaviors (such as strong temperament and impulsivity) show a negative correlation. Finally, native males with stronger prosocial traits are more concerned about racism. However, for females and foreigners — social groups that are typically discriminated against — these associations are not statistically significant. The results suggest that childhood behavioral traits shape political attitudes before political preferences crystallize and underscore the importance of understanding the developmental origins of discrimination concerns.

Keywords: Discrimination Concerns, Behavioural Traits, Childhood, Political Preferences

[1] Centre d'Estudis Demogràfics, Universitat Autònoma de Barcelona. E-mail: mrubio@ced.uab.es
[2] Universidad Carlos III de Madrid. E-mail: josserra@clio.uc3m.es

# 1 Introduction

Resources and power are unequally distributed across social groups, with gender and race being key stratifying factors (Ridgeway, 2011; Bonilla-Silva, 2021). These systemic disparities, in fact, are potentially reinforced by individuals and institutions that actively promote discriminatory policies, as well as by those who choose to remain indifferent to social discrimination. For this reason, much attention has been paid in the literature to the determinants and consequences of individuals' concerns about gender inequality or racism (e.g. Perales et al., 2021; De Vries and O'Brien, Forthcoming). Indeed, there is an extensive literature in the social sciences that explores the dynamic relationship between sexism or racism and radical voting behavior (e.g. Schaffner, 2022; Anduiza and Rico, 2024).

Studying the determinants of discrimination concerns, a significant body of research examines the role played by different dimensions of personality traits (Akrami, Ekehammar, and Yang-Wallentin, 2011; Gallego and Pardos-Prado, 2014; Hellmer, Stenson, and Jylhä, 2018). This literature demonstrates the cross-sectional relationship between contemporary self-reported personality measures and racist attitudes or preferences for gender equality (Silvestri and Richardson, 2001; Akrami, Ekehammar, and Yang-Wallentin, 2011; Hellmer, Stenson, and Jylhä, 2018). However, using contemporaneous self-reports of personality traits to predict discrimination concerns is problematic because respondents may have different reference points (Heckman and Kautz, 2013), and there may be reverse causality, as people tend to shape their personality according to their political leanings (Bakker, Lelkes, and Malka, 2021).

To address these concerns, there is a growing body of research on how children's behavior and traits affect political outcomes, although the results are mixed (Block and Block, 2006; Fasching, Arceneaux, and Bakker, 2023). We contribute to this literature by examining whether personal traits and behaviors in early childhood — prior to the formation of political attitudes — are associated with concerns about racism and gender inequality in young adulthood. Specifically, we make three key contributions to this growing line of research. First, while previous studies have typically focused on political participation (Holbein, 2017; Kitchens and Gormley, 2023) or broad ideological orientations (Block and Block, 2006; Fasching, Arceneaux, and Bakker, 2023), we shift the focus to concerns about discrimination — an area that has received considerably less attention. Second, much of this research is framed as an empirical refinement

of previous work on personality and political behavior in adults. Diversely, we offer a novel theoretical framework that integrates insights from social psychology, sociology, and political science to explain how early behavioral traits can shape discrimination concerns in adulthood. Finally, we argue — and empirically demonstrate — that the proposed relationships are particularly pronounced for social groups that are typically not discriminated against, such as native males.

To test our argument, we use the Growing Up in Ireland (GUI) longitudinal dataset. A major strength of this dataset is the inclusion of the Strengths and Difficulties Questionnaire (SDQ), a well-established instrument in psychological research to assess children's behavioral and emotional development (Goodman, 1997; Goodman, Lamping, and Ploubidis, 2010). Importantly, in our study, the SDQ is completed by teachers rather than parents. By relying on teachers' assessments, we reduce the likelihood of capturing parental characteristics that could influence both SDQ scores and later discrimination concerns (Ojeda and Hatemi, 2015; Perales et al., 2021).

Another advantage of the GUI dataset is its rich set of variables, which allows us to account for multiple confounding factors at the individual, family, and school levels, including cognitive skills (Heckman and Kautz, 2013) and school fixed-effects. Finally, the dataset enables us — unlike previous studies — to explore whether the relationship between personality traits and discrimination concerns could be driven by political interest. By estimating Average Controlled Direct Effect (ACDE) (Acharya, Blackwell, and Sen, 2016), we show that the association found for discrimination concerns is empirically different from the relationship of political interest.

In this study, we examine the relationship between behavioral and personality traits at age 9 and concerns about discrimination eleven years later. In particular, we focus on three behavioral dimensions measured by the SDQ questionnaire: internalizing problems, externalizing problems, and prosocial behavior. Our results suggest that only among native males, those who exhibited externalizing problems in childhood — such as temperamental traits or disobedience — are generally less concerned about discrimination in adulthood. In contrast, native males who displayed internalizing problems — such as low self-confidence or a tendency to worry — and who exhibited prosocial behaviors, such as being considerate of others' feelings, are more likely to be concerned about discrimination.

At this point, two clarifications are necessary. First, we recognize that sexist and racist attitudes manifest themselves in various forms, ranging from explicit endorsement of violence to more subtle discriminatory actions. We argue that not being *concerned* about racism and gender inequality can be understood as a form of racist and sexist *attitudes*, respectively.[1] Secondly, while in other contexts, such as the United States, race and immigration status are analytically and empirically distinct, in Ireland — the case study — these categories are closely intertwined (Michael, 2015).[2] For this reason we will jointly study racist and anti-immigration attitudes.

The findings of this article are relevant because they suggest that certain emotions and behaviors in childhood, even before political preferences are fully formed, are associated with concerns about racism and gender inequality later in life. Indeed, these dimensions are widely recognized as key drivers of the recent cultural backlash and the rise of radical right-wing parties (Abou-Chadi, Breyer, and Gessler, 2021; Anduiza and Rico, 2024; Schaffner, 2022). Moreover, this study complements existing research on the socioeconomic determinants of childhood behaviors and their consequences. For example, there is evidence that material deprivation in childhood is associated with behavioral problems as measured by the SDQ (Jungkunz and Marx, 2024). Our results suggest that material deprivation in childhood may also influence concerns about gender inequality and racism through this mechanism.

## 2 Theoretical Framework

### 2.1 Personality Traits in Adulthood and Political Preferences

There is ample evidence that political concerns and behaviors are relatively stable and do not change easily over time (e.g. Kustov, Laaker, and Reller, 2021; Lancee and Sarrasin, 2015). For this reason, the literature has turn to analyze how personality traits — which have been shown to be stable during adulthood — influence various political dimensions (see Gerber et al. (2011) for a review).

In particular, there is extensive evidence of a relationship between different personality traits and attitudes towards gender inequality (e.g. Ekehammar and Akrami, 2007; Akrami, Ekehammar, and Yang-Wallentin, 2011; Gallego and Pardos-Prado, 2014). For example, Akrami,

Ekehammar, and Yang-Wallentin (2011) find that individuals more opened to change and with higher levels of agreeableness tend to show less levels of sexism, and Höhmann and Kroeber (2024) show that members of the German Parliament who are more open to change tend to have more favorable attitudes towards gender equality, and that this relationship is not mediated by general ideological levels.

There is also broad evidence that personality traits are related to anti-immigration attitudes as well as concerns about racism. Much of this research has built on the seminal work of Allport (1954) that studies how the prejudice toward (ethnic) minorities is related to rigidity of attitudes and the adherence to authoritarianism. In these lines, Hightower (1997) argue that those individuals with poor interpresonal skills and low internal control tend to hold more racist attitudes. Studying anti-immigration attitudes, Gallego and Pardos-Prado (2014) find that individuals with higher levels of agreeableness and lower levels of neuroticism tend to hold more positive attitudes towards immigrants (see also, Dinesen, Klemmensen, and Nørgaard, 2016).

Despite extensive evidence for the association between personality traits and various dimensions of political preferences, this line of research has come under criticism, as they study the relationship between contemporary self-reports of personality traits and political preferences (Gerber et al., 2011; Bakker, Lelkes, and Malka, 2021; Fasching, Arceneaux, and Bakker, 2023). Using contemporary self-reports is problematic as respondents may use different reference points when evaluating their own personality traits (Heckman and Kautz, 2013), and their evaluations may be shaped by their political preferences at the time of the survey (Gerber et al., 2011). In addition, individuals may present themselves in a way that is consistent with their political orientation (Bakker, Lelkes, and Malka, 2021).

## 2.2 Childhood Personality and Behavioral Traits: Political Consequences in Adulthood

Given the limitations of using contemporary personality self-reports to explain political preferences, a growing body of research has examined the relationship between personality traits in childhood and various political outcomes later in life. However, rather than examining specific dimensions of discrimination concerns, this literature has focused primarily on ideology and

political participation.

Analyzing different dimensions of political ideology, numerous studies report a negative relationship between childhood traits such as fearfulness, being easily offended and the tendency to feel victimized and later conservative orientations (Block and Block, 2006; Fraley et al., 2012; Wegemer and Vandell, 2020). For example, Block and Block (2006) found that children who exhibit these traits at ages 3 and 4 are more likely to hold conservative views at age 23, while those who tend to have closer relationships, to be self-reliant, energetic and resilient are more likely to develop more liberal attitudes in adulthood. However, Fasching, Arceneaux, and Bakker (2023) find no consistent relationship between personality in childhood and political ideology from adolescence to middle adulthood. The authors suggest that this discrepancy may stem from differences in measurement, as Block and Block (2006) rely on teachers' rather than parents' ratings — a point we examine further in the discussion.

Personality traits in childhood also play a role in political participation in adulthood. Kitchens and Gormley (2023) show that psychosocial skills such as self-regulation and sociability in kindergarten age correlate with a higher probability of voting in adulthood. Similarly, Jungkunz and Marx (2024) includes childhood behavioral characteristics as control variables in a study on material deprivation and political participation. Their findings suggest that children who exhibit conduct and hyperactivity problems are less likely to vote later in life.

While these findings underscore the influence of behavior and personality in childhood on political leanings and behavior in adulthood, it remains unclear whether early behavioral characteristics are related to concerns about gender inequality and racism in adulthood. Previous studies suggest that the influence of personality on political views may vary across different political dimensions and cannot be clearly reconciled with broad ideological labels (Verhulst, Hatemi, and Martin, 2010; Höhmann and Kroeber, 2024). In what follows we attempt to fill this gap by examining whether behavioral characteristics in childhood are related to concerns about gender inequality and racism in later life.

### 2.3 The Argument

In the early stages of life, children display a wide range of behaviors that are shaped by the interplay of temperament, social interactions and external circumstances, underscoring the

importance of both innate and socially acquired elements (Goodman, 1997; Cicchetti and Bendezú, 2023). In this study, we focus on three key dimensions of early behavior: internalizing problems, externalizing problems, and prosocial behavior (Goodman, 1997; Jungkunz and Marx, 2024). Internalizing problems include emotional and social difficulties such as anxiety and social withdrawal. Externalizing problems, on the other hand, involve destructive and aggressive behaviors as well as attention difficulties. Finally, prosocial behaviors range from empathy and consideration for the feelings of others to broader acts of kindness. We claim that understanding these aspects can provide valuable insights into how early-life behavior shape later attitudes and social outcomes.

These behavioral dimensions are the result of a combination of innate characteristics and environmental influences, with similar stress factors leading to different behavioral reactions depending on individual characteristics and additional contextual factors. For example, it has been shown that parenting style plays a central role in shaping children's personality (Foley, Kröger, and Radl, 2025). Indeed, evidence suggests that children exposed to high levels of parental psychological control, frequent outbursts of anger, or parental mental health problems are more likely to develop both externalizing and internalizing behaviors (Denham et al., 2000; Fitzsimons et al., 2017; Symeou and Georgiou, 2017). Similarly, adverse childhood experiences, including poverty, parental divorce and maltreatment, are associated with both behavioral problems (Lansford et al., 2006; Narayan et al., 2015; Fitzsimons et al., 2017; Jungkunz and Marx, 2024). In addition, positive school experiences, strong social resources and better perceived neighborhood opportunities contribute to greater prosocial behavior (Lenzi et al., 2012; Waenerlund et al., 2016).

Understanding these developmental trajectories provides valuable insight into how early emotional and behavioral patterns contribute to shaping concerns about racism and gender inequality in adulthood. Rooted in a life-cycle approach, we argue that (the lack of) adverse childhood events shapes early coping strategies (Cicchetti and Bendezú, 2023) which in turn influence how individuals perceive and respond to social discrimination in adulthood.

We contend that children with internalizing problems tend to become more sensitive to issues of social fairness and discrimination. In particular, internalizing problems in childhood are associated with disengagement coping strategies that can lead to social isolation (Cicchetti

and Bendezú, 2023). Notably, Fasching, Arceneaux, and Bakker (2023) find that childhood solitude is one of the few traits consistently associated with adult ideology, with more solitary children more likely to hold liberal views later in life (see Gerber et al. (2011) for similar results in adults). In turn, ideological liberalism has been associated with higher levels of concern about gender inequality and racism (e.g. Wike et al., 2025). Moreover, among internalizing problems, a particularly significant factor highlighted in the social psychology literature is the experience of abuse, such as bullying (Danese and Lewis, 2022; Cicchetti and Bendezú, 2023). We argue that these early experiences of abuse shape perceptions of discrimination in adulthood. Indeed, there is evidence that individuals who have personally experienced situations of abuse are more likely to recognize various forms of inequality — such as gender inequality and racial discrimination — as pressing societal problems (Lobo and Brutger, 2023; Wike et al., 2025).

In contrast, children who show externalizing problems, such as impulsivity or aggression, tend to use dominance-oriented coping strategies to deal with individual stressors (Cicchetti and Bendezú, 2023). We argue that this reinforce their views about social hierarchy. Indeed, social psychology literature in adulthood connects prejudice against marginalized groups to a preference for social hierarchies and a disregard for equality (Allport, 1954; Hightower, 1997; Sibley and Duckitt, 2008). In these lines, there is evidence that individuals use dominance strategies, such as the use or threat of violence, in order to ascend in the social hierarchy and draw social boundaries (Henrich and Gil-White, 2001; Cheng et al., 2013). These strategies aim to secure social status at the expense of other groups (Ridgeway, 2014). In particular, studies have shown a link between personality traits and a preference for social hierarchies (Sibley and Duckitt, 2008), and how such hierarchical preferences correlate with various forms of discrimination, such as racism and anti-immigration attitudes (Silvestri and Richardson, 2001; Duckitt and Sibley, 2010). Building on this framework, we suggest that children with externalizing behaviours will show lower discrimination concerns later in life.

Lastly, we consider the role of prosocial behaviors, marked by empathy and cooperative tendencies. Building on literature that links adult traits and political preferences, we contend that children with empathic traits will tend to be more concerned about gender inequality and racism. In studies examining the relationship between personality traits and attitudes towards immigration and racism, agreeableness consistently emerges as one of the most influential

dimensions. This trait is usually defined by the tendency to empathize with others and to care about their well-being (Silvestri and Richardson, 2001; Gallego and Pardos-Prado, 2014; Dinesen, Klemmensen, and Nørgaard, 2016).

In summary, we hypothesize the following relationships between behavioral traits and discrimination concerns:

**Hypothesis 1a:** *Internalizing problems during childhood are positively related to discrimination concerns in young adulthood.*

**Hypothesis 1b:** *Externalizing problems during childhood are negatively related to discrimination concerns in young adulthood.*

**Hypothesis 1c:** *Prosocial behaviours during childhood are positively related to discrimination concerns in young adulthood.*

We further hypothesize that the influence of behavioral traits on discrimination concerns is socially stratified (Gerber et al., 2011), with this relationship being particularly pronounced among native males, a group that is generally not socially discriminated against. For example, Lobo and Brutger (2023) find that Black Americans, a historically discriminated group, are more likely than white Americans to define fairness as equal treatment for all, helping explain their broader support for globally beneficial trade policies. These findings suggest that the experience of discrimination in one domain fosters a broader awareness of fairness in other domains. Building on this, we argue that for discriminated groups such as female and the foreign-born, concerns about discrimination are shaped more by their collective experiences than by individual traits.[3]

In particular, internalizing problems — such as expressing worries or disclosing experiences of abuse — may have distinct implications depending on an individual's social group (Gutman and Codiroli McMaster, 2020; Cicchetti and Bendezú, 2023). We argue that for individuals being less exposed to social discrimination — such as native men — personal experiences of abuse and worry are more strongly associated with increased concerns about the well-being of discriminated groups, such as immigrants and females (Lobo and Brutger, 2023).

On the other hand, externalizing behaviors — such as aggression — are often employed as strategies to maintain social status, particularly among males, due to prevailing gender norms (O'Neil, 1981; Mahalik et al., 1998). Moreover, high-status groups, like native males, are often strongly motivated to maintain their status and positive self-image. When these are challenged, they may respond with externalizing behaviors to reinforce social boundaries (Baumeister, Smart, and Boden, 1996; Ridgeway, 2014; Hopkins, Margalit, and Solodoch, 2024). For example, Hopkins, Margalit, and Solodoch (2024) show that economic hardship can prompt dominant groups — particularly, white Americans and men — to scapegoat vulnerable populations such as undocumented immigrants to defend their social position.

Finally, for individuals who are generally not discriminated against, we contend that prosocial traits such as empathy and concern for others' feelings play a greater role in shaping sensitivity to discrimination compared to discriminated groups. That is, overall, we hypothesize that the influence of individual coping strategies on concerns about discrimination decreases when individuals belong to a group that is directly affected by discrimination, while for socially dominant groups — such as native males — these traits are more important.

**Hypothesis 2a:** *Internalizing problems during childhood are positively related to discrimination concerns in young adulthood, specially for native males.*

**Hypothesis 2b:** *Externalizing problems during childhood are negatively related to discrimination concerns in young adulthood, specially for native males.*

**Hypothesis 2c:** *Prosocial behaviours during childhood are positively related to discrimination concerns in young adulthood, specially for native males.*

# 3 Data and Variables

## 3.1 Data

We use longitudinal data from the Cohort '98 of the Growing Up in Ireland dataset. We follow the development of about 8,500 Irish children from 2008, when they were 9 years old, to the age of 20. It consists of several questionnaires completed by children, their parents and their

teachers during their school years. In this study, we use data from the first and last waves, when individuals are 9 and 20 years old respectively.[4] Of the 8,500 observations, about 5,200 participated in the two waves used in this study. Thus, once we also account for non-response to any of the variables used in the analysis, the final sample comprises 4,754 individuals. To account for attrition, we apply sampling weights to all calculations in the main analysis.

### 3.2 Main Variables

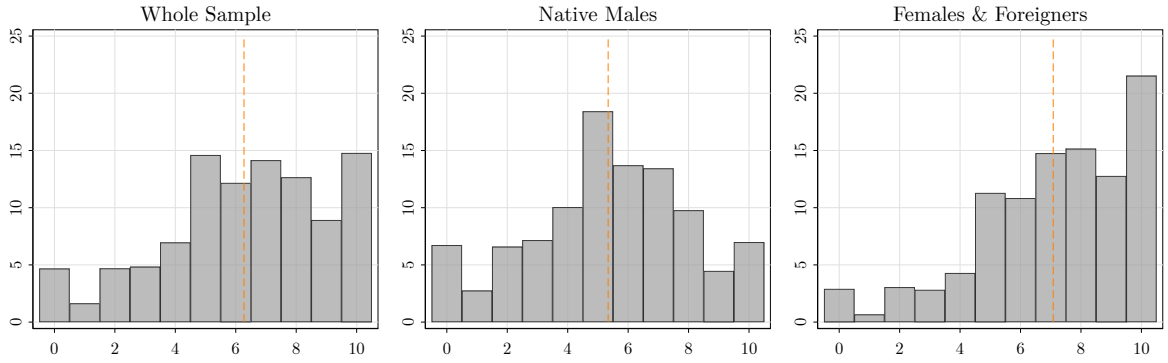
As dependent variables, we use two questions that capture concerns about gender inequality and racism. Specifically, young adults are asked: "How concerned are you about gender inequality in Ireland" and "How concerned are you about racism in Ireland". These questions are scored on a scale from 0 to 10, with 0 being "Not at all concern" and 10 being "Very concern". The distribution of the dependent variables is shown in Figure 1. The left panels show the distribution for the whole sample, the middle panels for native males, and the right panels for females and foreigners. As expected, there is a clear difference between native males and other respondents: while about 68% of females and foreigners are highly concerned about gender inequality (with answers of 7 or higher), only 35% of native males are. Similarly, about 69% of females and foreigners are very concerned about racism, and drops to 52% for native males.

Our main explanatory variables reflect behaviors, emotions, and relationships, as measured by the Strengths and Difficulties Questionnaire (Goodman, 1997). The SDQ is specifically designed to assess children's behavioral and emotional well-being along with their personal traits and provides a comprehensive overview of how personality manifests in behavior. We use the scores obtained from teachers' responses to the SDQ questionnaire. The SDQ consists of 25 questions divided into five original behavioral dimensions, each with five questions. These five behavioral dimensions are: Peers, emotional, conduct, hyperactivity, and prosocial, each scored on a scale of 0 to 10, with 0 indicating absence and 10 indicating complete presence of the trait.

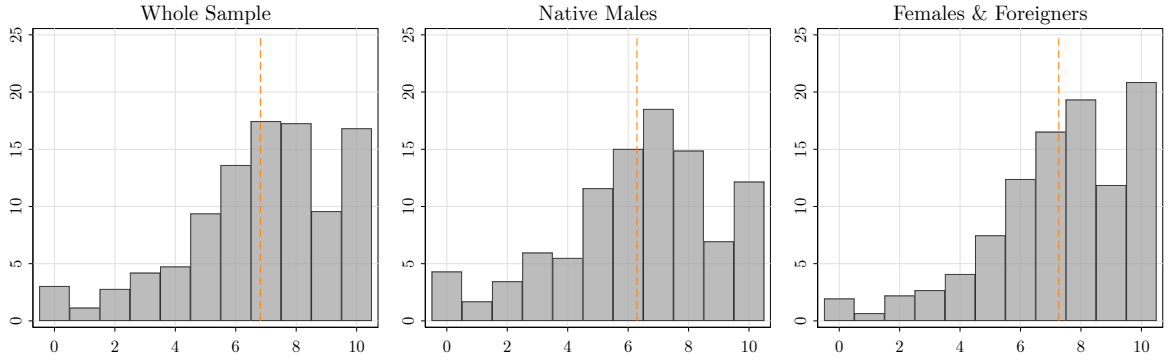
While this classification is typically used for high-risk populations, such as hospitalized children, for the general population — such as our sample of children not at risk — these five dimensions are generally grouped into three main subscales: Internalizing, externalizing, and prosocial behaviors (Goodman, Lamping, and Ploubidis, 2010; Jungkunz and Marx, 2024).[5]

Figure 1: Distribution Main Dependent Variables

(a) Gender Inequality Concerns




(b) Racism Concerns




Note: Weighted. The mean value of each variable is displayed with an orange dashed line.

The internalizing subscale, which results from averaging peers and emotional dimensions, captures emotional and social difficulties such as frequent worry and anxiety. The externalizing subscale, which is the average of conduct and hyperactivity dimensions, captures conduct problems such as disobedience, outbursts, bullying and fighting, as well as attention difficulties. Finally, the prosocial subscale reflects positive social behaviors, such as consideration for others' feelings or kindness. Together, these subscales provide a comprehensive overview of a child's emotional, behavioral and social development.

Each subscale is scored on a scale from 0 to 10, with 0 indicating absence and 10 indicating full presence of the trait. However, these subscales are highly skewed because very few children are reported with fully present internalizing and externalizing traits and with completely absent prosocial traits (see Appendix A.2). To reduce skewness, we limit the maximum value that internalizing and externalizing subscales can take to 5, i.e. we assign them a value of 5 if they have a value of 5 or more. In contrast, we limit the values for the prosocial traits to a value

between 5 and 10, as very few children do not exhibit any prosocial traits. In empirical analyses, we use a standardized version of both the dependent and the main explanatory variables to facilitate the comparability of the results for different dimensions of discrimination. A summary of the operationalization of our main explanatory variables is outlined in Table 1.

Table 1: Summary Computation Explanatory Variables

| **Subscale** | **Dimension** | **# Q.** | **Example Q.** | **Operationalization** |
|---|---|---|---|---|
| Internalizing | Peer | 5 | Bullied by others | - Average of dimensions<br>- Range: 0–5<br>- Standardized |
| | Emotional | 5 | Many worries | |
| Externalizing | Conduct | 5 | Often fights | - Average of dimensions<br>- Range: 0–5<br>- Standardized |
| | Hyperactivity | 5 | Easily distracted | |
| Prosocial | — | 5 | Considerate of others' feelings | - Range: 5–10<br>- Standardized |

Note: #Q refers to the number of questions used to measure each dimension. Example Q. refers to an example of the type of questions included in each dimension. Operationalization shows the sequence of steps to create the main explanatory variables.

### 3.3 Control Variables

As control variables we use various characteristics that were reported when the children were 9 years old. We include individual traits such as gender, whether the child is native or foreigner, whether the child lives in a rural or urban area, and standardized academic achievement test scores for English and math. We also account for parental characteristics such as their socioeconomic status when the individual being studied is a 9-year-old child as in Jungkunz and Marx (2024). These include a question about the degree of ease or difficulty in making ends meet, the mother's highest level of education attained, and the type of household (a combination of partner status and number of children).

Finally, to capture unobserved school characteristics, we include school fixed-effects (FE). Since no school identifiers are available, we create these FE by grouping children based on the responses of their school principal to a set of 130 questions, with each unique response profile corresponding to a particular school. This results in 707 school groups with an average of 7 children surveyed per school. A detailed description of the control variables and their

descriptive statistics can be found in Appendix A.4, which also includes a more in depth discussion of school FE.

# 4 Methodology

Empirically, we aim to uncover the conditional correlation between SDQ measures in childhood (in 2008, when individuals are 9 years old) and discrimination concerns in early adulthood (in 2019, when individuals are 20 years old).

Specifically, the specification has the following form,

$$Y_{i,19} = \alpha + \sum_{j \in \{I,E,P\}} \beta_j SDQ^j_{t(i),08} + \delta' X_{i,08} + \lambda_s + e_{i,19} \tag{1}$$

where $Y_{i,19}$ represent gender inequality or racism concerns of individual $i$ measured in 2019, and $SDQ^j_{t(i),08}$ are the three different SDQ measures ($j$) from the teachers' responses ($t$) in 2008. The index $j \in \{I, E, P\}$ refers to the three behavioral dimensions: Internalizing (I), Externalizing (E), and Prosocial (P) behaviors. The parameters of interest, $\beta_j$, can be interpreted as follows: A one standard deviation increase in $SDQ^j_{t(i),08}$ is associated with a $\beta_j$ standard deviation increase in concerns about gender inequality or racism. Crucially, these associations are net of child and parental characteristics ($X_{i,08}$) and school FE ($\lambda_s$). In other words, we exploit the differences in SDQ scores between individuals who have similar individual and parental characteristics and attend the same type of school. While it is plausible that parents can choose the school their child attends, they are generally less able to influence the specific class assignment within that school, which mitigates selection bias.

Finally, $e_{i,19}$ represents the error term. In this regard, we take advantage of the fact that the two dependent variables are likely to have correlated error terms, as both relate to discrimination concerns. Specifically, we use the seemingly unrelated regressions (SUR) approach, which takes into account the correlation between the error terms in both equations, thereby providing more efficient estimates (Zellner, 1962; Esping-Andersen et al., 2013). Furthermore, rather than assuming that the errors are independent and identically distributed (Jungkunz and Marx, 2024), we allow the error terms to be heteroscedastic and correlated within schools.

# 5 Results

## 5.1 Main Results

Table 2 shows the relationship between behavioral traits and concerns about discrimination. Models 1 to 3 illustrate the relationship between each SDQ measure and concerns about gender inequality, while Models 4 to 6 illustrate the relationships for racism concerns. For reasons of clarity, only the coefficients for the primary variables of interest are presented in these models; Appendix B shows the coefficients for all control variables.[6]

Results from models 1 and 4, which do not include controls, indicate that individuals with internalizing tendencies, characterized by childhood experiences of loneliness, frequent worry, or bullying, are more likely to express concerns about both types of discrimination in young adulthood. In contrast, individuals who exhibit externalizing behaviors, such as aggression or difficulty concentrating, tend to be less concerned about these forms of discrimination. Finally, individuals who exhibit prosocial behaviors, such as consideration for others, tend to express greater concern about both types of discrimination in adulthood.

Models 2 and 3 (for gender inequality) and Models 5 and 6 (for racism) additively include school FE and controls for individual as well as parental characteristics. After the introduction of school FE in Models 2 and 5, the signs and significance of the estimated coefficients for the behavioral subscales remain stable (however, internalizing behaviors for racism concerns become not statistically significant due to a decrease in precision). When individual and parental controls are included, the coefficients decrease in size and some become statistically insignificant. In the final specification, externalizing behaviors are negatively related to concerns about gender inequality, while prosocial behaviors are positively related to concerns about racism.

The changes in coefficients after the introduction of controls suggest that individual characteristics such as gender and cognitive skills partially explain the relationship between SDQ scores and discrimination concerns. In addition, it should be noted that the inclusion of school FE significantly increases the $R^2$ value — from 0.02 to 0.31 for concerns about gender inequality and from 0.01 to 0.28 for concerns about racism. This suggests that school FE account for a significant proportion of the variance in discrimination concerns.

As mentioned above, the relationship between behavioral traits and concerns about dis-

Table 2: Association Between Childhood SDQ Scores and Adult Discrimination Concerns

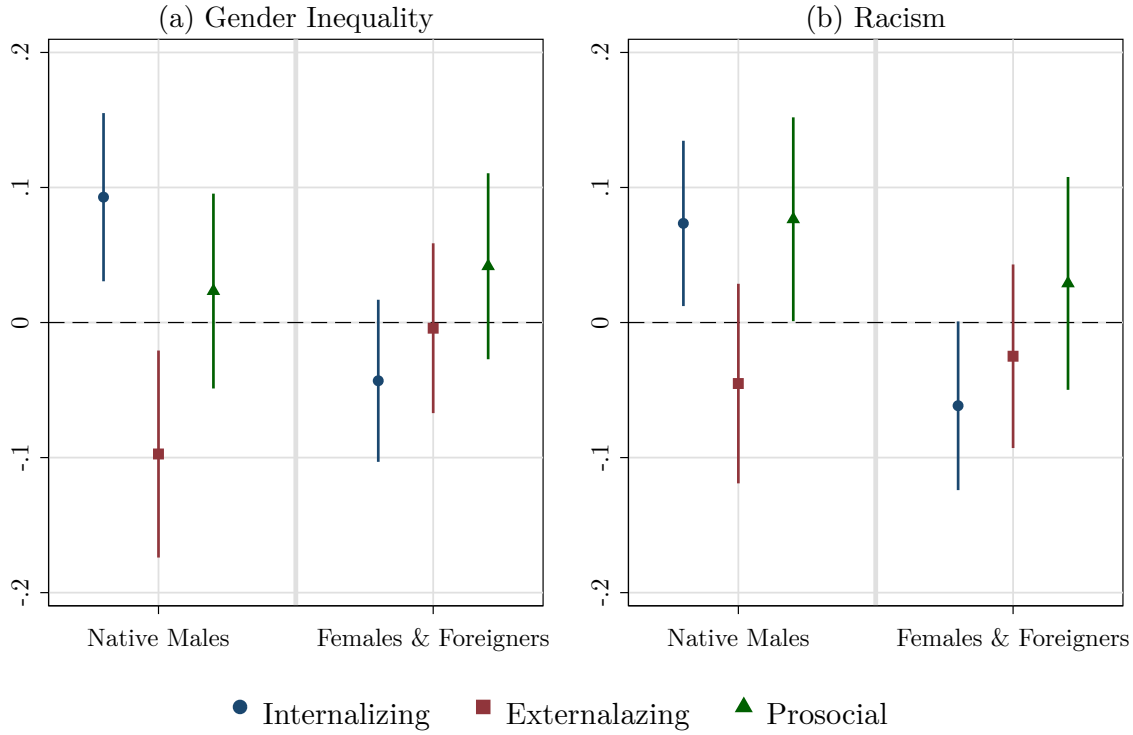
| | Gender Inequality | | | Racism | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Intern | 0.062** | 0.052** | 0.031 | 0.029* | 0.029 | 0.015 |
| | (0.014) | (0.019) | (0.019) | (0.013) | (0.019) | (0.019) |
| Extern | -0.099** | -0.102** | -0.053* | -0.053** | -0.049* | -0.027 |
| | (0.016) | (0.021) | (0.022) | (0.016) | (0.022) | (0.023) |
| Prosoc | 0.082** | 0.081** | 0.026 | 0.071** | 0.092** | 0.059* |
| | (0.017) | (0.023) | (0.022) | (0.017) | (0.024) | (0.024) |
| School FE | | ✓ | ✓ | | ✓ | ✓ |
| Controls | | | ✓ | | | ✓ |
| Observations | 4,754 | 4,754 | 4,754 | 4,754 | 4,754 | 4,754 |
| $R^2$ | 0.021 | 0.310 | 0.375 | 0.010 | 0.281 | 0.306 |

Note: Estimates from SUR. Robust standard errors clustered at the school level in parenthesis. Different controls defined in Appendix B. There are 707 school FE. * indicates significance at the 5% level, and ** at the 1% level.

crimination is expected to be particularly strong for native males. Figure 2 shows the results of estimating Equation 1 with all controls, separately for native males and for females and foreigners (which corresponds to a fully interacted model (Blackwell and Olson, 2022)).[7] The figure on the left shows the results for concerns about gender inequality, while the figure on the right focuses on concerns about racism.

Consistent with the argument, the results show that the relationship between SDQ dimensions in childhood and concerns about discrimination in adulthood differs across groups, with the strongest associations observed among native males.[8] Panel (a) of Figure 2 illustrates that for this group alone, internalizing behaviors in childhood are positively associated with concerns about gender inequality in adulthood, while externalizing behaviors show a negative association. More specifically, a one standard deviation (SD) increase in internalizing behaviors corresponds to a 0.1 SD increase in concerns about gender inequality, while a one SD increase in externalizing behaviors is associated with a 0.1 SD decrease in such concerns.[9] In contrast, for females and foreigners, neither internalizing nor externalizing behaviors show significant

Figure 2: Heterogeneity Analyses




Note: Estimates from SUR. Blue dots represent internalizing traits, red squares denote externalizing traits, and green triangles correspond prosocial behaviors. The spikes illustrate 95% confidence intervals computed using robust standard errors clustered at the school level.

associations with concerns about gender inequality. However, it should be noted that for externalizing behaviors, the difference in the coefficient between the groups is not significant at the usual confidence levels, with a p-value slightly above 0.05 (see Appendix C). In addition, no group showed a significant relationship between prosocial behaviors in childhood and these concerns in adulthood.

The findings related to concerns about racism, presented in Panel (b), show a similar picture. Specifically, as expected, internalizing and prosocial traits in childhood exhibit a positive association with concerns about racism in adulthood for native males. That is, those native males displaying internalizing and prosocial traits in childhood tend to be more concerned about racism in adulthood. Similar to the patterns observed for gender inequality concerns, childhood behavioral traits show no significant association with concerns about racism in adulthood among females and foreigners. The only exception is internalizing behaviors, where the coefficient is almost statistically significant and suggests a negative relationship with concerns about racism—opposite to the positive association found for native males (a discussion on

this is provided in Section 5.2). In terms of the interaction, while for internalizing traits the difference in coefficients is statistically significant, this is not the case for prosocial behavior (Appendix C).

Figure 3 displays the predicted values of discrimination concerns, as a function of different SDQ scores. This is done separately for native males and for females and foreigners. Specifically, to get a better sense of the magnitude, in this figure discrimination concerns and SDQ measures are not standardized. Figure 3a indicates the difference in concerns about gender inequality between native males and more discriminated groups is contingent on internalizing and externalizing traits. While at low levels of internalizing behaviors the difference of the two groups is of 2.07 points (on a 0 to 10 scale), it decreases to 1.22 at high values of internalizing behaviors — that is, the difference between native males and the other groups is reduced by a 40%. The middle panel reveals that at high levels of externalizing problems the difference between native males and the other groups (2.08) is substantially larger than for low levels of externalizing problems (1.46). In contrast, the difference between groups remains relatively stable for all values of prosocial traits.

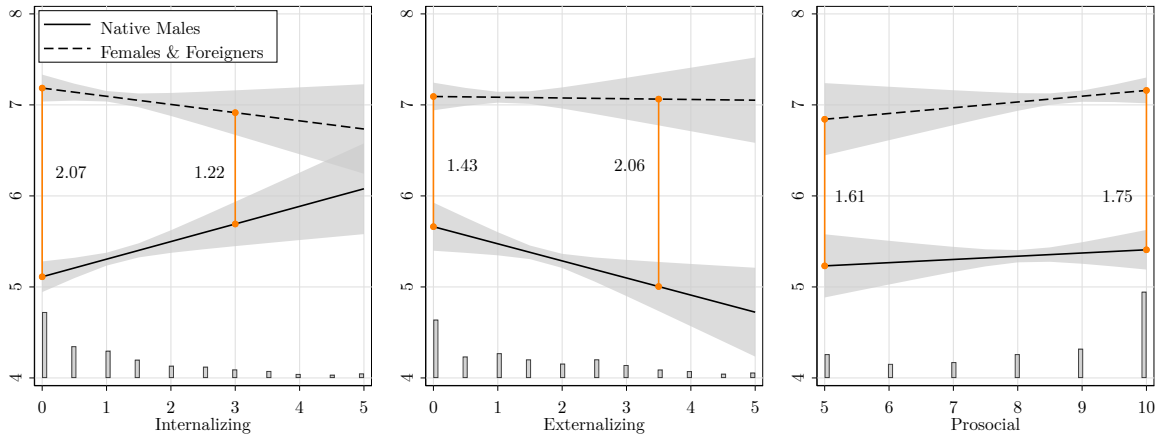
Regarding the analysis of differences in concerns about racism, Figure 3b shows that the difference between the two groups is notably smaller for high levels of internalizing behaviors (0.47) than for low levels (1.25). Indeed, moving from low to high internalizing values, reduces the differences between the groups by a 60%. Although the coefficient for internalizing behaviors is not significant for females and foreign-born individuals, it should be noted that they contribute to the observed reduction. Finally, analyzing externalizing and prosocial behaviors it can be seen that the differences are more subtle.

## 5.2 The Role of Political Interest

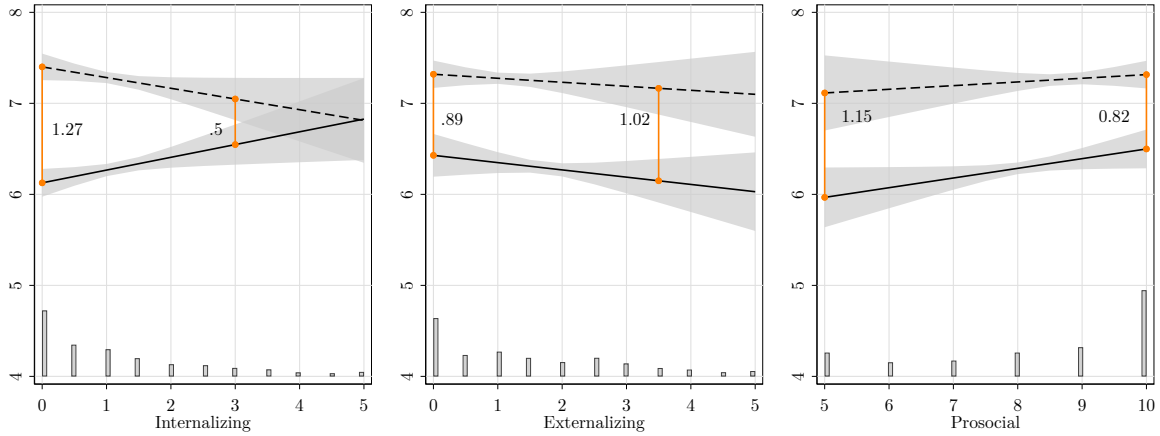
Several interesting patterns have emerged at this point. The most important is that only for native men, childhood traits and behaviors are related to their discrimination concerns in adulthood. However, it could be that the associations found simply capture different levels of political interest. As Holbein (2017) found, interventions to improve emotional skills increase the likelihood of turning out to vote. Indeed, using the same SDQ measure, Jungkunz and Marx (2024) show that externalizing traits and behaviors are negatively associated with political

Figure 3: Predicted Values

(a) Gender Inequality Concerns




(b) Racism Concerns




Note: Predicted values of discrimination concerns (range from 0 to 10), from estimates of a SUR including all controls and school FE, separately for native males (solid line) and females and foreigners (dashed line). Gray areas are 95% confidence intervals computed from robust standard errors clustered at the school level. Orange lines indicate the difference between native males and other population groups at the 10th and 90th levels of the SDQ, respectively.

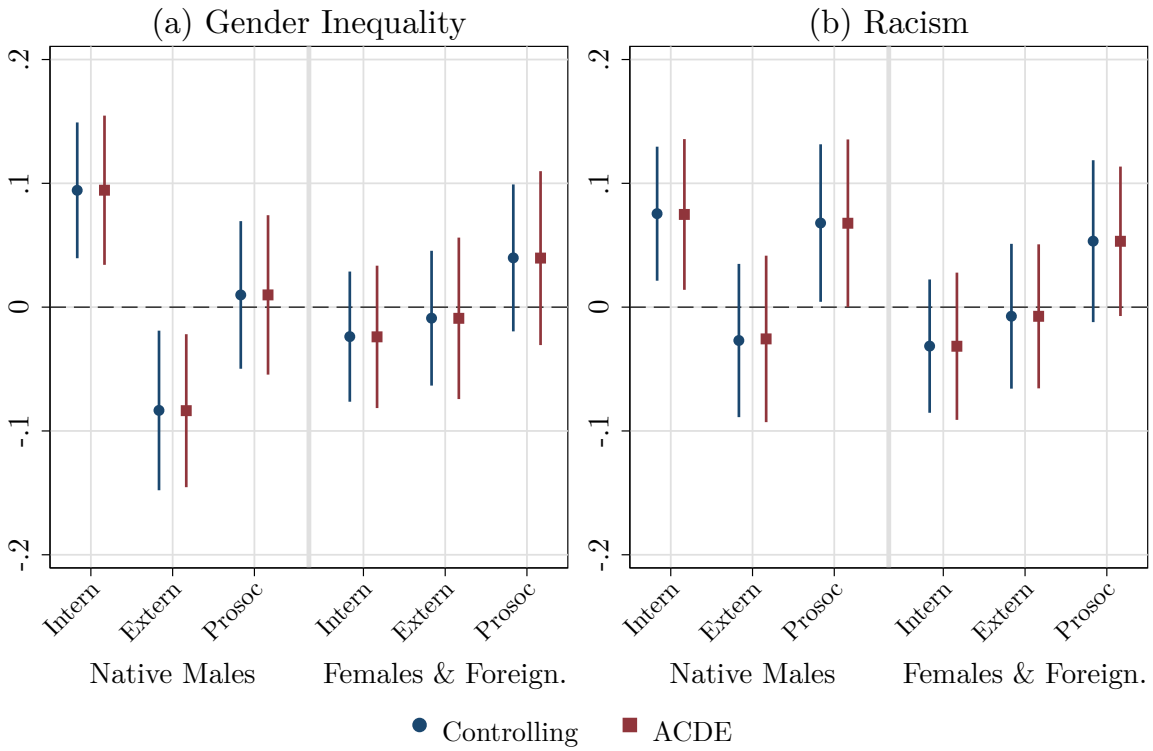
interest, a fact that we replicate in our sample (see Appendix D.1).

In a next step, we turn to analyze whether we are simply capturing political interest rather than discrimination concerns. To explore this issue, we employ two strategies. First, we simply control for whether the individual is registered to vote. However, this could lead to post-treatment bias (Kohler, Class, and Sawert, 2024). The problem is that if SDQ measures lead to different levels of political interest, then, two individuals with different SDQ scores but the same level of political interest will have different unobserved characteristics. To mitigate this problem, as a second strategy, we estimated the Average Controlled Direct Effects (ACDE)

(Acharya, Blackwell, and Sen, 2016). This approach consists of not only introducing political interest as a control, but also netting out the association of other potential intermediate mediators. This procedure is explained in detail in Appendix D.2.

Figure 4 shows the estimated association between SDQ and discrimination concerns when controlling for political interest (in blue) and when estimating the ACDE (in red). Both approaches yield results that are very similar to those in Figure 2. Holding the level of political interest constant, behavioral traits in childhood are related with discrimination concerns for native males, while this is not the case for females and foreigners. This suggests that we are not only capturing the association between SDQ and political interest. Moreover, it should be noted that the negative association between internalizing problems and racism concerns among females and foreigners (as shown in the right panel of Figure 2) appears to be driven by lower political engagement. When controlling for political interest, the coefficient is reduced by half.

Figure 4: Direct Association SDQ after Controlling for Political Interest




Note: Blue dots represent estimates controlling for political interest, while red squares show the estimated ACDE. 95% confidence intervals are computed from robust standard errors clustered a the school level in the first case, and using 400 bootstrap samples in the second.

### 5.3 Robustness Checks

Appendix E examines various robustness tests. Appendix E.1 shows the results not using weights. Appendix E.2 uses double-selection models to deal with the great number of controls we include in our main specification (Blackwell and Olson, 2022). Moreover, since some results were barely statistically (in)significant, Appendix E.3 analyzes the results using different approaches to compute standard errors. Appendix E.4 uses binary instead of continuous dependent variables, classifying individuals as (very) concerned about discrimination or not. Appendix E.5 shows the results using the untransformed SDQ values, which range from 0 to 10, and also using five behavioural dimensions rather than three. Further, Appendix E.6 analyzes the interactive associations between different behavioural dimensions. Overall, the results are qualitatively similar to those presented in the main text. The main exception is for the case without using weights, where the results for the whole sample lose statistical significance. However, the heterogeneous effects proposed are qualitatively similar (see Appendix E.1 for a discussion).

In Appendix E.7 we explore how sensitive the results are to confounding. We perform two analyses. First, we control for different pre-treatment variables (e.g., mother's cultural activities, absenteeism, parenting style...) and obtain similar results. Second, we use a method recently developed in applied statistics to deal with confounding in observational studies (Cinelli and Hazlett, 2020). We show whether the results found would change if we overlooked a confounding factor that is three times as important as parental education or parenting style. These exercises suggest that the results found are not driven by unobserved characteristics.

Finally, to investigate which population subgroups are responsible for the observed associations, Appendix E.8 presents results separately for native females and foreigners. Theoretically, we have argued that for socially disadvantaged groups, behavioral traits should play a lesser role in explaining their concerns about discrimination, and in our empirical analyses, we have grouped native females and foreigners together. However, it is possible that there are meaningful differences between these two subgroups. Reassuringly, we find that the results are essentially non-significant for both subgroups. However, the number of observations for foreigners is limited and the results should therefore be interpreted with caution.

# 6 Discussion and Conclusion

This article contributes to the study of two crucial dimensions of recent cultural backlash: gender inequality and racism. Specifically, we have documented that, only for native males, internalizing (externalizing) problems during childhood are positively (negatively) associated with gender inequality concerns, and that internalizing and prosocial behaviors are positively related about concerns about racism. However, for females and foreigners these associations are not statistically significant. We interpret these results as an indication that behavioral traits in childhood are more consequential for explaining discrimination concerns for members of dominant social groups, that is, those who are not routinely exposed to systemic discrimination (Ridgeway, 2014). By contrast, for individuals from socially disadvantaged groups, discrimination is not a distant concern but a lived experience, likely shaped more by structural conditions than by internal predispositions (Lobo and Brutger, 2023).

Importantly, we show that our results are independent of political interest. While SDQ measures are related to political interest (Jungkunz and Marx, 2024), political interest does not explain our findings. This suggests that SDQ may be related to political interest through affecting, for instance, traditional gender attitudes, and not the other way around (De Vries and O'Brien, Forthcoming).

This article contrasts with the work of Fasching, Arceneaux, and Bakker (2023), where they find no significant relationship between behavioral traits in childhood and political leanings in adulthood. They acknowledge that these null effects may be driven by using parental rather than teacher reports, as done by Block and Block (2006). Interestingly, the GUI dataset allows us to compare teachers' and parents' SDQ scores (see Appendix F). First, we demonstrate that parents' and teachers' SDQ scores capture different dimensions of behavioral traits. Second, consistent with Fasching, Arceneaux, and Bakker (2023), we find that parents' SDQ scores do not systematically correlate with discrimination concerns. We contend that this lack of association may be explained by the limitations associated with parental evaluations.

Despite these contributions, our study has some limitations. First, while our results suggest relevant relationships, they do not prove causality. For example, genetic predispositions that influence both childhood behavior and political concerns in adulthood, could bias the rela-

tionship under study (Verhulst, Eaves, and Hatemi, 2012). Future research should investigate these potentially confounding influences. Second, while we emphasize that school characteristics are strongly associated with discrimination concerns — explaining approximately 30% of their variation — this study has not examined which specific features of schools drive these associations. Future research should explore whether and how the relationship between childhood behavioral traits (as measured by SDQ) and concerns about discrimination varies across different school contexts.

Third, while Ireland offers high-quality longitudinal data, its unique social and historical context may limit the generalizability of our findings. Studies in other contexts are needed to assess the robustness of these relationships. Indeed, given the socio-political landscape of Ireland, we cannot separate concerns about racism from those about immigration, as these categories are closely intertwined. Finally, the lack of representativeness of the database for small subgroups limits our ability to conduct a more granular analysis of subgroup-specific dynamics — in particular, how these relationships may differ between groups such as foreign males and foreign females. To advance this line of research, datasets that intentionally oversample these populations are needed.

Overall, these findings have implications for research exploring how childhood experiences affect political outcomes. For example, recent literature finds that children in financially deprived households tend to show more behavioral problems (Jungkunz and Marx, 2024). Our results suggest that through this channel financial deprivation in childhood may also explain future concerns about gender inequality or racism in adulthood. Related, there is evidence that early interventions aimed at increasing child socio-emotional skills increase political participation (Holbein, 2017; Kitchens and Gormley, 2023). According to our findings, these interventions may also contribute to the increase in concerns over relevant social dimensions. Finally, by examining concerns about gender inequality and racism, our study speaks to one of the most important social and political developments of recent times — the rise of the radical-right voting (Anduiza and Rico, 2024; Schaffner, 2022). As public debates about identity and exclusion become increasingly salient, it is not only timely but also crucial to understand how concerns about discrimination are traced back to early life experiences.

# Notes

[1]This perspective is not new. For example, previous research typically equates concerns about immigration with anti-immigration attitudes (e.g. see Lancee and Pardos-Prado (2013) and Czymara and Dochow (2018) and the references therein).

[2]These two points are illustrated in an opinion letter published in one of Ireland's leading conservative newspapers entitled "The problem isn't racism, it's the tidal wave of immigrants" (Irish Independent, 2007). The claim that "the problem isn't racism" dismisses concerns about racial discrimination, while the reference to a "tidal wave of immigrants" clearly reflects anti-immigration attitudes.

[3]Note, however, that we are not arguing that females and foreigners analytically equivalent. Rather, we claim that their individual traits play a comparatively smaller role in shaping their concerns about discrimination due to their greater exposure to social discrimination. Nevertheless, there may be differences between these two groups.

[4]We use only the first round for capturing SDQ because it is the only round for which we have teachers' evaluations (more on this below).

[5]The questions included in each subscale are presented in Appendix A.1.

[6]Appendix A.3 presents the bivariate relationships between the SDQ measures and each discrimination concern.

[7]Certainly, this specification is rather demanding, as it allows each control variable to have a distinct relationship with discrimination concerns across groups, which produces conservative standard error (Blackwell and Olson, 2022). Appendix E.2 presents the results from the double-selection model proposed by the authors.

[8]See Appendix E.8 for analyses differentiating between females and foreigners.

[9]To get a better sense of the magnitude of the relationship, Appendix E.4 uses a binary outcome to capture the probability of being highly concerned about gender inequality (defined as a response of 7 or higher). The effects are sizable: a one SD increase in internalizing (externalizing) problems is associated with a 5 percentage point increase (decrease) in the likelihood of being highly concerned.

## References


Abou-Chadi, T., Breyer, M., and Gessler, T. (2021). "The (re) politicisation of gender in Western Europe". *European Journal of Politics and Gender* 4.2, pp. 311–314.

Acharya, A., Blackwell, M., and Sen, M. (2016). "Explaining causal findings without bias: Detecting and assessing direct effects". *American Political Science Review* 110.3, pp. 512–529.

Akrami, N., Ekehammar, B., and Yang-Wallentin, F. (2011). "Personality and social psychology factors explaining sexism". *Journal of Individual Differences*.

Allport, G. W. (1954). *The Nature of Prejudice*. Reading, MA: Addison-Wesley.

Anduiza, E. and Rico, G. (2024). "Sexism and the far-right vote: The individual dynamics of gender backlash". *American Journal of Political Science* 68.2, pp. 478–493.

Bakker, B. N., Lelkes, Y., and Malka, A. (2021). "Reconsidering the link between self-reported personality traits and political preferences". *American Political Science Review* 115.4, pp. 1482–1498.

Baumeister, R. F., Smart, L., and Boden, J. M. (1996). "Relation of Threatened Egotism to Violence and Aggression: The Dark Side of High Self-Esteem". *Psychological Review* 103.1, pp. 5–33.

Blackwell, M. and Olson, M. P. (2022). "Reducing model misspecification and bias in the estimation of interactions". *Political Analysis* 30.4, pp. 495–514.

Block, J. and Block, J. H. (2006). "Nursery school personality and political orientation two decades later". *Journal of Research in Personality* 40.5, pp. 734–749.

Bonilla-Silva, E. (2021). *Racism without racists: Color-blind racism and the persistence of racial inequality in America*. 6th. Rowman & Littlefield.

Cheng, J. T., Tracy, J. L., Foulsham, T., Kingstone, A., and Henrich, J. (2013). "Two ways to the top: evidence that dominance and prestige are distinct yet viable avenues to social rank and influence." *Journal of Personality and Social Psychology* 104.1, p. 103.

Cicchetti, D. and Bendezú, J. J. (2023). "Childhood Adversity and the Development of Coping". In: *The Cambridge Handbook of the Development of Coping*. Ed. by E. A. Skinner and M. J. Zimmer-Gembeck. Cambridge Handbooks in Psychology. Cambridge University Press. Chap. 10, 246–275.

Cinelli, C. and Hazlett, C. (2020). "Making sense of sensitivity: Extending omitted variable bias". *Journal of the Royal Statistical Society Series B: Statistical Methodology* 82.1, pp. 39–67.

Czymara, C. S. and Dochow, S. (2018). "Mass media and concerns about immigration in Germany in the 21st century: individual-level evidence over 15 years". *European Sociological Review* 34.4, pp. 381–401.

Danese, A. and Lewis, S. J. (2022). "New directions in research on childhood adversity". *The British Journal of Psychiatry* 220.3, pp. 107–108.

De Vries, C. E. and O'Brien, D. Z. (Forthcoming). "Women and the Wall: Gender Attitudes and Political Engagement in Unified Germany". *The Journal of Politcs*.

Denham, S. A., Workman, E., Cole, P. M., Weissbrod, C., Kendziora, K. T., and ZAHN-WAXLER, C. (2000). "Prediction of externalizing behavior problems from early to middle childhood: The role of parental socialization and emotion expression". *Development and Psychopathology* 12.1, pp. 23–45.

Dinesen, P. T., Klemmensen, R., and Nørgaard, A. S. (2016). "Attitudes toward immigration: The role of personal predispositions". *Political Psychology* 37.1, pp. 55–72.

Duckitt, J. and Sibley, C. G. (2010). "Personality, ideology, prejudice, and politics: A dual-process motivational model". *Journal of Personality* 78.6, pp. 1861–1894.

Ekehammar, B. and Akrami, N. (2007). "Personality and prejudice: From Big Five personality factors to facets". *Journal of Personality* 75.5, pp. 899–926.

Esping-Andersen, G., Boertien, D., Bonke, J., and Gracia, P. (2013). "Couple specialization in multiple equilibria". *European Sociological Review* 29.6, pp. 1280–1294.

Fasching, N., Arceneaux, K., and Bakker, B. N. (2023). "Inconsistent and very weak evidence for a direct association between childhood personality and adult ideology". *Journal of Personality*.

Fitzsimons, E., Goodman, A., Kelly, E., and Smith, J. P. (2017). "Poverty dynamics and parental mental health: Determinants of childhood mental health in the UK". *Social Science & Medicine* 175, pp. 43–51.

Foley, W., Kröger, L. K., and Radl, J. (2025). "Parental support and diversity in sibling personality". *Advances in Life Course Research* 63, p. 100658.

Fraley, R. C., Griffin, B. N., Belsky, J., and Roisman, G. I. (2012). "Developmental antecedents of political ideology: A longitudinal investigation from birth to age 18 years". *Psychological Science* 23.11, pp. 1425–1431.

Gallego, A. and Pardos-Prado, S. (2014). "The big five personality traits and attitudes towards immigrants". *Journal of Ethnic and Migration Studies* 40.1, pp. 79–99.

Gerber, A. S., Huber, G. A., Doherty, D., and Dowling, C. M. (2011). "The big five personality traits in the political arena". *Annual Review of Political Science* 14, pp. 265–287.

Goodman, A., Lamping, D. L., and Ploubidis, G. B. (2010). "When to use broader internalising and externalising subscales instead of the hypothesised five subscales on the Strengths and Difficulties Questionnaire (SDQ): data from British parents, teachers and children". *Journal of Abnormal Child Psychology* 38, pp. 1179–1191.

Goodman, R. (1997). "The Strengths and Difficulties Questionnaire: a research note". *Journal of Child Psychology and Psychiatry* 38.5, pp. 581–586.

Gutman, L. M. and Codiroli McMaster, N. (2020). "Gendered pathways of internalizing problems from early childhood to adolescence and associated adolescent outcomes". *Journal of Abnormal Child Psychology* 48.5, pp. 703–718.

Heckman, J. J. and Kautz, T. (Sept. 2013). *Fostering and Measuring Skills: Interventions That Improve Character and Cognition*. Working Paper 19656. National Bureau of Economic Research.

Hellmer, K., Stenson, J. T., and Jylhä, K. M. (2018). "What's (not) underpinning ambivalent sexism?: Revisiting the roles of ideology, religiosity, personality, demographics, and men's facial hair in explaining hostile and benevolent sexism". *Personality and Individual Differences* 122, pp. 29–37.

Henrich, J. and Gil-White, F. J. (2001). "The evolution of prestige: Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission". *Evolution and Human Behavior* 22.3, pp. 165–196.

Hightower, E. (1997). "Psychosocial characteristics of subtle and blatant racists as compared to tolerant individuals". *Journal of Clinical Psychology* 53.4, pp. 369–374.

Höhmann, D. and Kroeber, C. (2024). "Personality and political representation—How personality traits shape MPs' attitudes toward gender equality". *Legislative Studies Quarterly*.

Holbein, J. B. (2017). "Childhood skill development and adult political participation". *American Political Science Review* 111.3, pp. 572–583.

Hopkins, D. J., Margalit, Y., and Solodoch, O. (2024). "Personal economic shocks and public opposition to unauthorized immigration". *British Journal of Political Science* 54.3, pp. 928–936.

Irish Independent (Mar. 2007). *The problem isn't racism, it's the tidal wave of immigrants. Irish Independent*. Opinion Letter, Accessed: 10 March 2025.

Jungkunz, S. and Marx, P. (2024). "Material deprivation in childhood and unequal political socialization: the relationship between children's economic hardship and future voting". *European Sociological Review* 40.1, pp. 72–84.

Kitchens, K. E. and Gormley, W. (2023). "From preschool to politics: Early socialization in Tulsa". *Early Childhood Research Quarterly* 62, pp. 259–274.

Kohler, U., Class, F., and Sawert, T. (2024). "Control variable selection in applied quantitative sociology: a critical review". *European Sociological Review* 40.1, pp. 173–186.

Kustov, A., Laaker, D., and Reller, C. (2021). "The stability of immigration attitudes: Evidence and implications". *The Journal of Politics* 83.4, pp. 1478–1494.

Lancee, B. and Pardos-Prado, S. (2013). "Group conflict theory in a longitudinal perspective: Analyzing the dynamic side of ethnic competition". *International Migration Review* 47.1, pp. 106–131.

Lancee, B. and Sarrasin, O. (2015). "Educated preferences or selection effects? A longitudinal analysis of the impact of educational attainment on attitudes towards immigrants". *European Sociological Review* 31.4, pp. 490–501.

Lansford, J. E., Malone, P. S., Castellino, D. R., Dodge, K. A., Pettit, G. S., and Bates, J. E. (2006). "Trajectories of internalizing, externalizing, and grades for children who have and have not experienced their parents' divorce or separation." *Journal of Family Psychology* 20.2, p. 292.

Lenzi, M., Vieno, A., Perkins, D. D., Pastore, M., Santinello, M., and Mazzardis, S. (2012). "Perceived neighborhood social resources as determinants of prosocial behavior in early adolescence". *American Journal of Community Psychology* 50, pp. 37–49.

Lobo, D. and Brutger, R. (2023). "Fairness According to Whom? Divergent Perceptions of Fairness among White and Black Americans and Its Effect on Trade Attitudes". *American Political Science Review*, pp. 1–14.

Mahalik, J. R., Cournoyer, R. J., DeFranc, W., Cherry, M., and Napolitano, J. M. (1998). "Men's gender role conflict and use of psychological defenses." *Journal of Counseling Psychology* 45.3, p. 247.

Michael, L. (2015). *Afrophobia in Ireland: Racism against People of African Descent*. ENAR Ireland.

Narayan, A., Cicchetti, D., Rogosch, F. A., and Toth, S. L. (2015). "Interrelations of maternal expressed emotion, maltreatment, and separation/divorce and links to family conflict and children's externalizing behavior". *Journal of Abnormal Child Psychology* 43, pp. 217–228.

Ojeda, C. and Hatemi, P. K. (2015). "Accounting for the child in the transmission of party identification". *American Sociological Review* 80.6, pp. 1150–1174.

O'Neil, J. M. (1981). "Male sex role conflicts, sexism, and masculinity: Psychological implications for men, women, and the counseling psychologist". *The Counseling Psychologist* 9.2, pp. 61–80.

Perales, F., Hoffmann, H., King, T., Vidal, S., and Baxter, J. (2021). "Mothers, fathers and the intergenerational transmission of gender ideology". *Social Science Research* 99, p. 102597.

Ridgeway, C. L. (2011). *Framed by Gender: How Gender Inequality Persists in the Modern World*. Oxford University Press.

Ridgeway, C. L. (2014). "Why status matters for inequality". *American Sociological Review* 79.1, pp. 1–16.

Schaffner, B. F. (2022). "The heightened importance of racism and sexism in the 2018 US midterm elections". *British Journal of Political Science* 52.1, pp. 492–500.

Sibley, C. G. and Duckitt, J. (2008). "Personality and prejudice: A meta-analysis and theoretical review". *Personality and Social Psychology Review* 12.3, pp. 248–279.

Silvestri, T. J. and Richardson, T. Q. (2001). "White racial identity statuses and NEO personality constructs: An exploratory analysis". *Journal of Counseling & Development* 79.1, pp. 68–76.

Symeou, M. and Georgiou, S. (2017). "Externalizing and internalizing behaviours in adolescence, and the importance of parental behavioural and psychological control practices". *Journal of Adolescence* 60, pp. 104–113.

Verhulst, B., Eaves, L. J., and Hatemi, P. K. (2012). "Correlation not causation: The relationship between personality traits and political ideologies". *American Journal of Political Science* 56.1, pp. 34–51.

Verhulst, B., Hatemi, P. K., and Martin, N. G. (2010). "The nature of the relationship between personality traits and political attitudes". *Personality and Individual Differences* 49.4, pp. 306–316.

Waenerlund, A.-K., Stenmark, H., Bergström, E., Hägglöf, B., Öhman, A., and Petersen, S. (2016). "School experiences may be important determinants of mental health problems in middle childhood–a Swedish longitudinal population-based study". *Acta Paediatrica* 105.4, pp. 407–415.

Wegemer, C. M. and Vandell, D. L. (2020). "Parenting, temperament, and attachment security as antecedents of political orientation: Longitudinal evidence from early childhood to age 26." *Developmental Psychology* 56.7, p. 1360.

Wike, R., Fagan, M., Huang, C., Clancy, L., and Lippert, J. (2025). *Economic Inequality Seen as Major Challenge Around the World*. Accessed: 2025-02-22.

Zellner, A. (1962). "An efficient method of estimation of seemingly unrelated regression and test for aggregation bias". *Journal of the American Statistical Association* 57, pp. 348–368.

Supplementary Material

# Shouldering Childhood: Early Behavioral Traits and Discrimination Concerns

Maria Rubio-Cabañez[1] and Josep Serrano-Serrat[2]

[1] Centre d'Estudis Demogràfics, Universitat Autònoma de Barcelona. E-mail: mrubio@ced.uab.es
[2] Universidad Carlos III de Madrid. E-mail: josserra@clio.uc3m.es

# Appendix A Variables and Descriptive Statistics

## A.1 Questions in Each SDQ Subscale

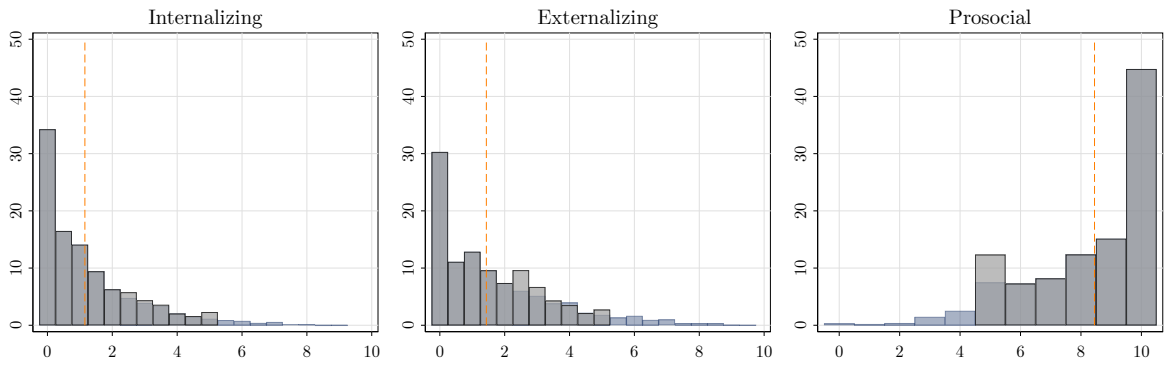
Table A1: Questions in Each SDQ Subscale

| | |
|---|---|
| Internalizing Subscale | Often complains of headaches, stomach-aches or sickness; Many worries, often seems worried; Often unhappy, down-hearted or tearful; Nervous or clingy in new situations, easily loses confidence; Many fears, easily scared; Rather solitary, tends to play alone; Has at least one good friend; Generally liked by other children; Picked on or bullied by other children; Gets on better with adults than with other children. |
| Externalizing Subscale | Often has temper tantrums or hot tempers; Generally obedient, usually does what adults request; Often fights with other children or bullies them; Often lies or cheats; Steals from home, school or elsewhere; Restless, overactive, cannot stay still for long; Constantly fidgeting or squirming; Easily distracted, concentration wanders; Thinks things out before acting; Sees tasks through to the end, good attention span. |
| Prosocial Subscale | Considerate of other people's feelings; Shares readily with other children (treats, toys, pencils etc.); Helpful if someone is hurt, upset or feeling ill; Kind to younger children; Often volunteers to help others (parents, teachers, other children). |

## A.2 Distribution Main Explanatory Variables

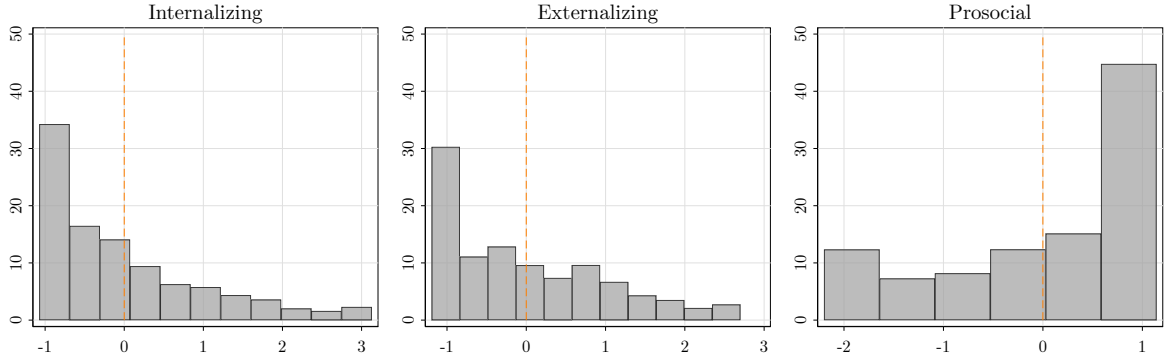
Figure A1 shows the distribution of the three explanatory variables used in the main analysis. The blue areas show the complete, unrestricted distributions (with a range from 0 to 10). The gray areas represent the restricted distributions: from 0 to 5 for internalizing and externalizing problems and from 5 to 10 for prosocial behaviors. The orange dashed lines mark the mean values within the restricted (gray) distributions.

Figure A1: Distribution Main Explanatory Variables




Note: Weighted.

Figure A2: Distribution Main Explanatory Variables: Standardized



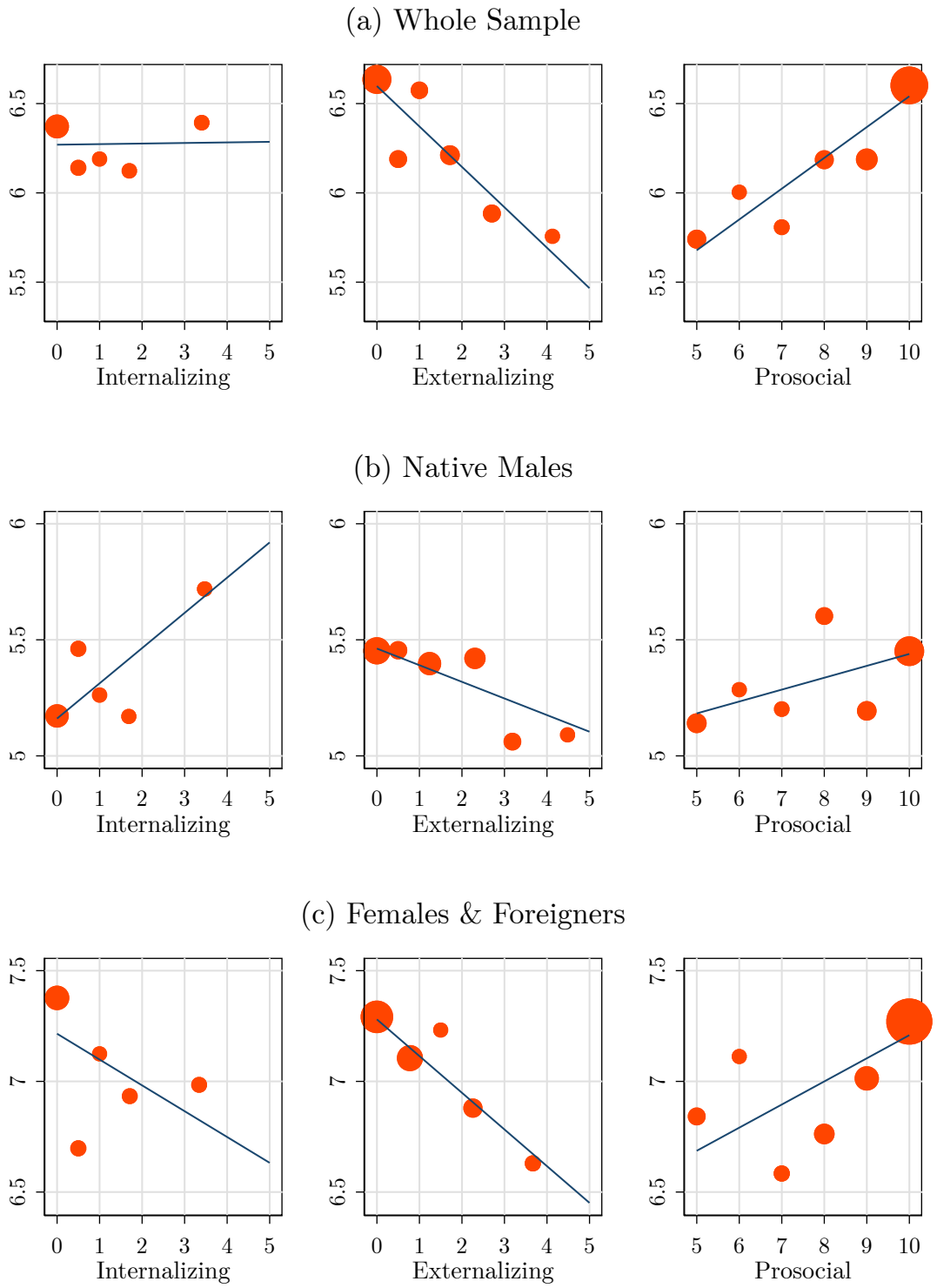

Note: Weighted.

## A.3 Bivariate Relationships

Before we start with the formal analyses, Figures A3 and A4 show the bivariate relationships between each SDQ dimension and each discrimination concern. A binscatter is used for this purpose, where the orange dots indicate the mean level of concerns about each discrimination concern at a given SDQ level and the size of the dots represents the relative number of observations. The blue lines are the linear fit underlying the data. The main finding of these plots is that concerns about discrimination is negatively (positively) associated with externalizing (prosocial) traits, but not with internalizing traits when the entire sample is considered. When we differentiate between Native males and other populations, we find that in both cases externalizing behaviors are negatively correlated with discrimination concerns about gender inequality, whereas prosocial behaviors show a positive relationship with these concerns. However, for internalizing behaviors, the correlation with discrimination concerns varies by

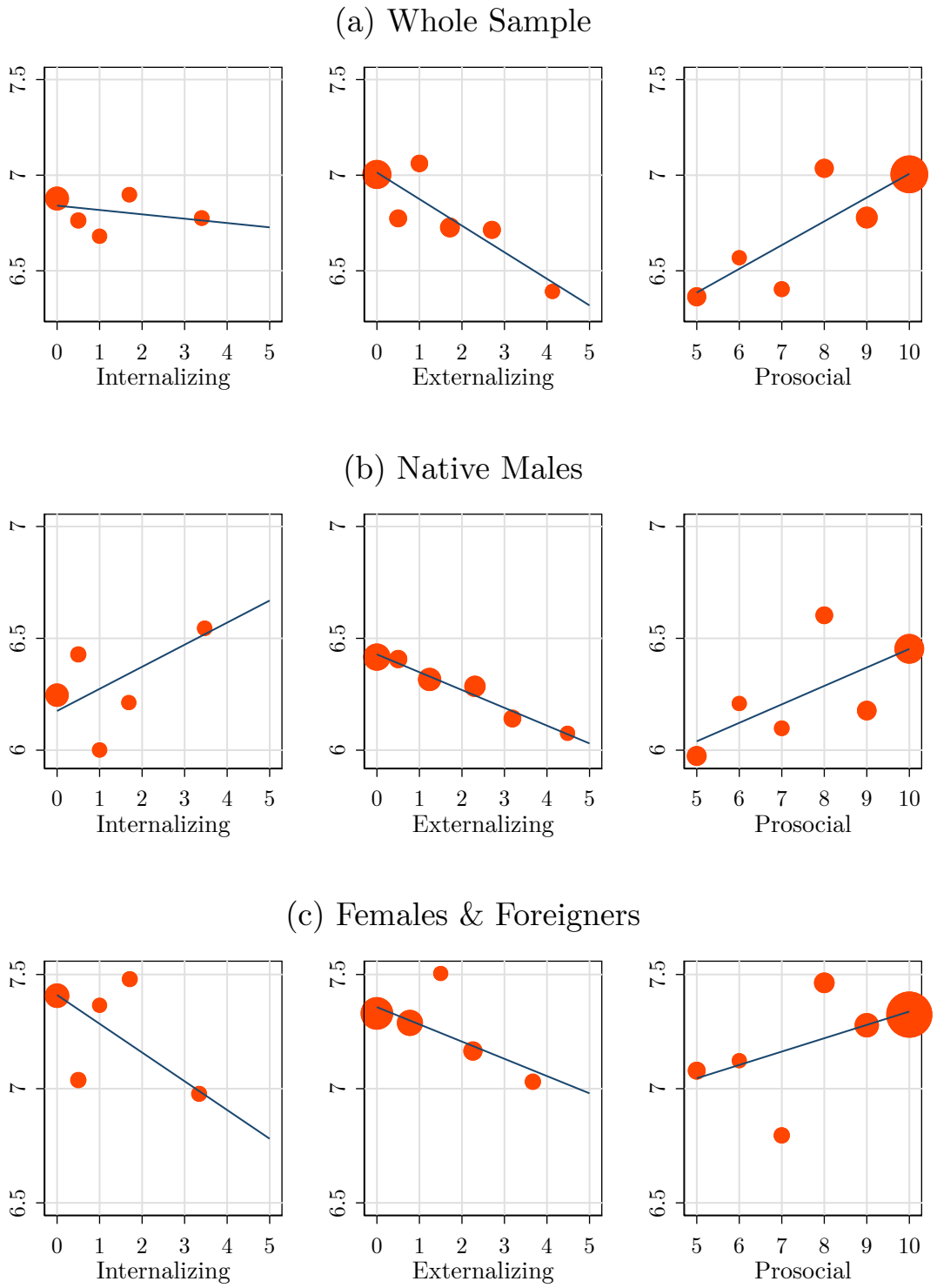
population group, with a positive association for native males and a negative association for females and foreigners.

Figure A3: Bivariate Associations Between Childhood SDQ Scores and Adult Gender Inequality Concerns: Binscatter




Note: Dots size represents number of observations. Blue lines represent linear fit of the underlying data.

Figure A4: Bivariate Associations Between Childhood SDQ Scores and Adult Racism Concerns: Binscatter




Note: Dots size represents number of observations. Blue lines represent linear fit of the underlying data.

## A.4 Descriptive Statistics

As control variables, we use various characteristics that were reported when the children were 9 years old. We divide these control variables into individual and parental variables. Individual variables include gender, whether the child is a foreigner, whether the child lives in a rural or urban area, and the percentage of correct answers on the Drumcondra academic achievement test for English and math. These are standardized academic achievement tests developed by the specialist Drumcondra Educational Research Centre based in Dublin. Parents' variables focus mainly on their socioeconomic status when the individual being studied is a 9-year-old child (Jungkunz and Marx, 2024). These include a question about the degree of ease or difficulty in making ends meet (a 6-point scale ranging from with great difficulty to very easily), the highest level of education attained by the mother (from primary to postgraduate education) and the type of household (including single parent with one or two children, single parent with three or more children, couple with one or two children and couple with three or more children).

To account for unobserved school-level characteristics that might influence both children's behavior and their future concerns about discrimination, we introduce school FE into the analysis. Since no school identifiers are available, we create these FE by grouping children based on their school principal's responses to a set of 130 questions. These questions cover a whole range of school characteristics, from structural aspects such as the number of teachers, staff and rooms to qualitative aspects such as the ethos of the school, the adequacy of resources, the composition of the student body and the curricular or extra-curricular activities. Each unique set of responses corresponds to a specific school, allowing us to capture school-level characteristics without explicit school identifiers. This method results in 707 different groups, each representing a school, with an average of about 7 children surveyed per school. This method allows us to control for unobserved factors that vary between schools but remain constant within each school, which helps us to isolate the effects of each behavioral subscale on discrimination concerns in adulthood. The descriptive statistics of the control variables can be found in Table A2.

Table A2: Summary Statistics

| Variable | Mean | Std. Dev. | Min. | Max. | N |
|---|---|---|---|---|---|
| Female (Ref.: Male) | 0.518 | 0.500 | 0 | 1 | 4,754 |
| Foreigner (Ref.: Native) | 0.098 | 0.297 | 0 | 1 | 4,754 |
| Rural (Ref.: Urban) | 0.554 | 0.497 | 0 | 1 | 4,754 |
| Reading test | 73.313 | 20.253 | 0 | 100 | 4,754 |
| Maths test | 58.868 | 20.720 | 0 | 100 | 4,754 |
| Diff. ends meet: With great diff. | 0.014 | 0.116 | 0 | 1 | 4,754 |
| Diff. ends meet: With diff. | 0.029 | 0.168 | 0 | 1 | 4,754 |
| Diff. ends meet: With some diff. | 0.176 | 0.381 | 0 | 1 | 4,754 |
| Diff. ends meet: Fairly easily | 0.391 | 0.488 | 0 | 1 | 4,754 |
| Diff. ends meet: Easily | 0.260 | 0.438 | 0 | 1 | 4,754 |
| Diff. ends meet: Very easily | 0.130 | 0.337 | 0 | 1 | 4,754 |
| Educ. mother: Primary or less | 0.023 | 0.151 | 0 | 1 | 4,754 |
| Educ. mother: Intermediate | 0.119 | 0.324 | 0 | 1 | 4,754 |
| Educ. mother: Leaving certificate | 0.304 | 0.460 | 0 | 1 | 4,754 |
| Educ. mother: Diploma/Certificate | 0.254 | 0.435 | 0 | 1 | 4,754 |
| Educ. mother: Primary degree | 0.188 | 0.391 | 0 | 1 | 4,754 |
| Educ. mother: Post graduate | 0.112 | 0.315 | 0 | 1 | 4,754 |
| Household type: Single parent 1 or 2 children | 0.066 | 0.248 | 0 | 1 | 4,754 |
| Household type: Single parent 3 or more children | 0.028 | 0.166 | 0 | 1 | 4,754 |
| Household type: Couple 1 or 2 children | 0.381 | 0.486 | 0 | 1 | 4,754 |
| Household type: Couple 3 or more children | 0.525 | 0.499 | 0 | 1 | 4,754 |

# Appendix B Main Regression with Controls

Table A3: Association Between Childhood SDQ Scores and Adult Discrimination Concerns

| | Gender Inequality | | | Racism | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Intern | 0.062** | 0.052** | 0.031 | 0.029* | 0.029 | 0.015 |
| | (0.014) | (0.019) | (0.019) | (0.013) | (0.019) | (0.019) |
| Extern | -0.099** | -0.102** | -0.053* | -0.053** | -0.049* | -0.027 |
| | (0.016) | (0.021) | (0.022) | (0.016) | (0.022) | (0.023) |
| Prosoc | 0.082** | 0.081** | 0.026 | 0.071** | 0.092** | 0.059* |
| | (0.017) | (0.023) | (0.022) | (0.017) | (0.024) | (0.024) |
| Female (Ref.: Male) | | | 0.683** | | | 0.388** |
| | | | (0.046) | | | (0.045) |
| Foreigner (Ref.: Native) | | | 0.041 | | | 0.028 |
| | | | (0.064) | | | (0.068) |
| Rural (Ref.: Urban) | | | -0.034 | | | -0.047 |
| | | | (0.066) | | | (0.074) |
| Reading test | | | 0.002* | | | 0.001 |
| | | | (0.001) | | | (0.001) |
| Maths test | | | -0.002 | | | -0.001 |
| | | | (0.001) | | | (0.001) |
| Diff. ends meet: With great diff. | | | -0.113 | | | -0.274 |
| | | | (0.153) | | | (0.137) |
| Diff. ends meet: With diff. | | | 0.212* | | | 0.151 |
| | | | (0.101) | | | (0.094) |
| Diff. ends meet: With some diff. | | | 0.031 | | | -0.037 |
| | | | (0.075) | | | (0.075) |
| Diff. ends meet: Fairly easily | | | 0.033 | | | -0.051 |
| | | | (0.068) | | | (0.069) |
| Diff. ends meet: Easily | | | -0.017 | | | -0.101 |
| | | | (0.070) | | | (0.071) |
| Diff. ends meet: Very easily | | | 0.000 | | | 0.000 |
| | | | (.) | | | (.) |
| Educ. mother: Primary or less | | | -0.331** | | | 0.001 |
| | | | (0.122) | | | (0.127) |
| Educ. mother: Intermediate | | | -0.088 | | | -0.073 |
| | | | (0.103) | | | (0.115) |
| Educ. mother: Leaving certificate | | | -0.029 | | | -0.004 |
| | | | (0.099) | | | (0.107) |
| Educ. mother: Diploma/Certificate | | | -0.053 | | | -0.009 |
| | | | (0.078) | | | (0.112) |
| Educ. mother: Primary degree | | | -0.138 | | | 0.001 |
| | | | (0.077) | | | (0.112) |
| Educ. mother: Post graduate | | | 0.000 | | | 0.000 |
| | | | (.) | | | (.) |

*Continued on next page*

| | Gender Inequality | | | Racism | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Household type: Single parent 1 or 2 children | | | -0.043 | | | -0.004 |
| | | | (0.059) | | | (0.060) |
| Household type: Single parent 3 or more children | | | 0.038 | | | 0.159 |
| | | | (0.092) | | | (0.078) |
| Household type: Couple 1 or 2 children | | | -0.026 | | | -0.043 |
| | | | (0.038) | | | (0.043) |
| Household type: Couple 3 or more children | | | 0.000 | | | 0.000 |
| | | | (.) | | | (.) |
| Constant | -0.000 | -0.000 | -0.330* | -0.000 | -0.000 | -0.098 |
| | (0.021) | (0.017) | (0.137) | (0.021) | (0.017) | (0.133) |
| School FE | | ✓ | ✓ | | ✓ | ✓ |
| Observations | 4,754 | 4,754 | 4,754 | 4,754 | 4,754 | 4,754 |
| $R^2$ | 0.021 | 0.310 | 0.375 | 0.010 | 0.281 | 0.306 |

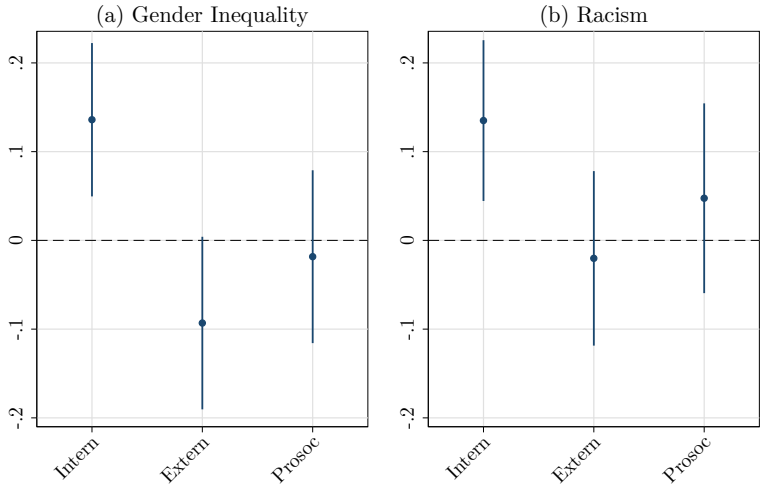
Notes: Robust standard errors are presented in parenthesis. * indicates significance at the 5% level, ** at the 1% level.

# Appendix C Interactive Effects

In the main analysis of heterogeneity, we have presented the coefficients associated with the SDQ measures for native males, on the one hand, and for females and foreigners on the other. Figure A5 shows the coefficients that formally test the difference in the association between native males, and females and foreigners.

The results suggest that internalizing problems are significantly more strongly associated with concerns about gender inequality and racism among native males than among other groups. In addition, there is suggestive evidence that externalizing problems have a more negative impact among native males; however, these results do not reach the conventional level of statistical significance. Nevertheless, as can be seen in Figure 2, the effect is highly significant for native males, while it is estimated to be close to zero for females and foreigners.

Figure A5: Interactive Effects




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

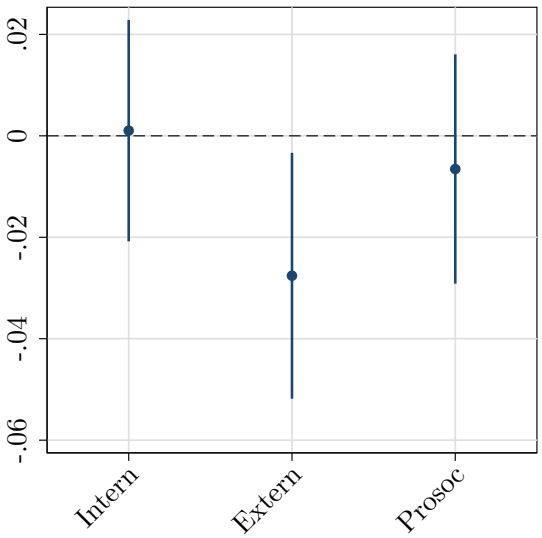
# Appendix D The Role of Political Interest

## D.1 SDQ and Political Interest

In the main text, we consider that our results could be driven by political interest. This would be the case if individuals are more concerned about discrimination when they are also more interested in politics in general. In this section, we show that SDQ scores are indeed related to political interest.

Jungkunz and Marx (2024), using data for the UK, find that externalizing traits and behaviors during childhood are negatively correlated with political interest. We show that the same association exists for the sample we use in Ireland. Specifically, respondents are asked directly whether they are registered to vote in the next elections (binary variable). The results are shown in Figure A6. We find that externalizing traits and behaviors are associated with a lower probability of being registered to vote (Jungkunz and Marx, 2024).

Figure A6: Association Between Childhood SDQ Scores and Adult Political Interest




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

## D.2 Average Controlled Direct Effects

The Average Controlled Direct Effects consists of not only introducing political interest as a control, but also netting out the association of other potential intermediate mediators (Acharya, Blackwell, and Sen, 2016). Then, we define discrimination concerns after partialling out the association of political engagement as a dependent variable. Specifically, in a first step we run the following model:

$$Y_{i,19} = \alpha + \sum_{j}^{3} \beta_j SDQ^{j}_{t(i),08} + \delta' X_{i,08} + \lambda_s + \gamma \text{Pol.Int.}_{i,19} + \delta'_p \text{Post-Treat.}_{i,19} + e_{i,19} \quad \text{(A1)}$$

where the first part of Equation A1 corresponds to the Equation 1 and the second part includes political interest as a control (Pol.Int.$_{i,19}$), as well as a set of post-treatment variables (Post-Treat.$_{i,19}$).[10]

In the second step, we regress an OLS using discrimination concerns as the dependent variable, net of the effect of political interest. That is, we estimate an specification as Equation 1 but using $Y^{*d}_{i,19} = Y_{i,19} - \hat{\gamma}\text{Pol.Int.}_{i,19}$ as the dependent variable. With this approach we aim to estimate the controlled direct effects, that is, the relationship between SDQ and discrimination concerns, keeping political interest constant for all units (Acharya, Blackwell, and Sen, 2016). When calculating the standard errors, we must take into account that the dependent variable

now comes from a coefficient and therefore there is error-in-measurement. For this reason, we perform the two steps described above for 400 bootstrap samples.

# Appendix E Robustness Tests

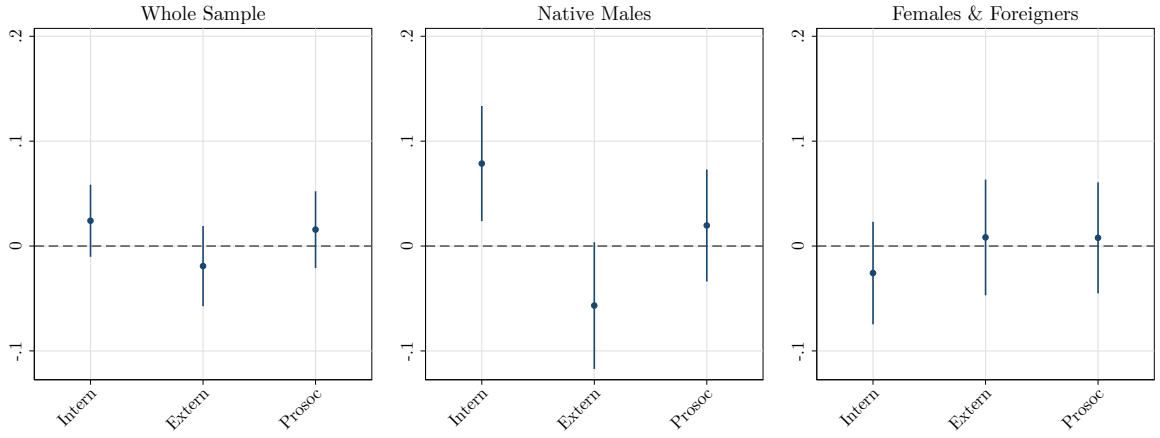
## E.1 Omitting Sampling Weights

We replicate the estimates of the main analysis without using sampling weight in the regressions. Note that the use of weights was used to account for under-representation of certain groups due to, among other factors, attrition. Thus, we claim that it is appropriate to use weights in our setting, were we exploit the longitudinal structure of our data.

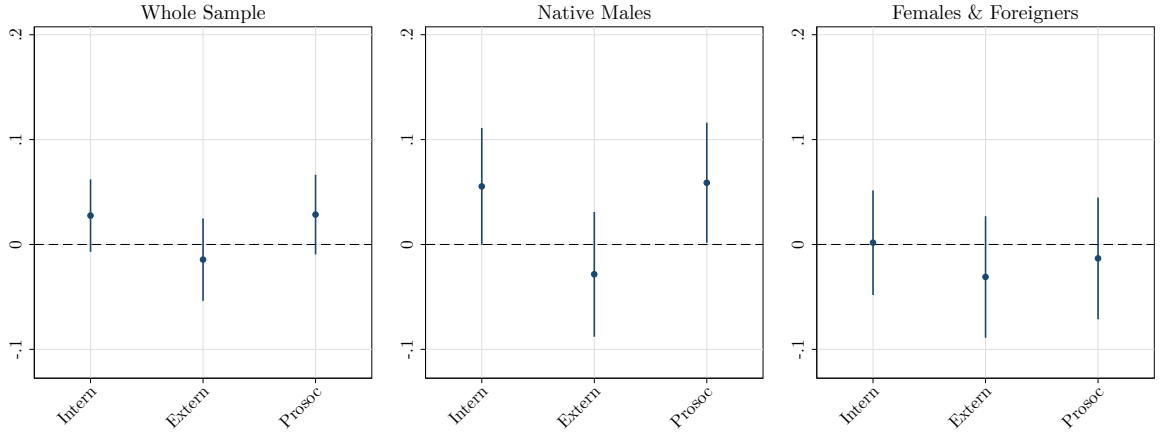
The results in Figure A7 show that there are slight changes in the results, specially for the whole sample (but see Appendix E.2). In this case, the associations between SDQ measures and both types of concerns are not statistically significant. However, heterogeneous analysis point out to the same direction. The only major difference is that externalizing behaviors for native males, seems to be non-significant, with a p-value slightly above 0.05. Consistent with the main analysis, moreover, for females and foreigners, the associations are close to zero and not statistically signficiant.

Figure A7: Association Between Childhood SDQ Scores and Adult Discrimination Concerns: No Sampling Weights

(a) Gender Inequality Concerns




(b) Racism Concerns




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

## E.2 Selection of Controls

For testing heterogeneous effects, in the main specification we have allowed all controls to be differently related to discrimination concerns for the different groups analyzed. This is a highly demanding specification as it allows, for instance, that each school FE has a differential impact on discrimination concerns for different groups. As this leads to a proliferation of covariates, it has been shown to lead to instable coefficients and to conservative standard errors (Belloni, Chernozhukov, and Hansen, 2014; Blackwell and Olson, 2022). An alternative that they propose is to use double-selection methods. This method consists of using a regularizing approach (in our case a LASSO) to select the covariates that affect discrimination concerns

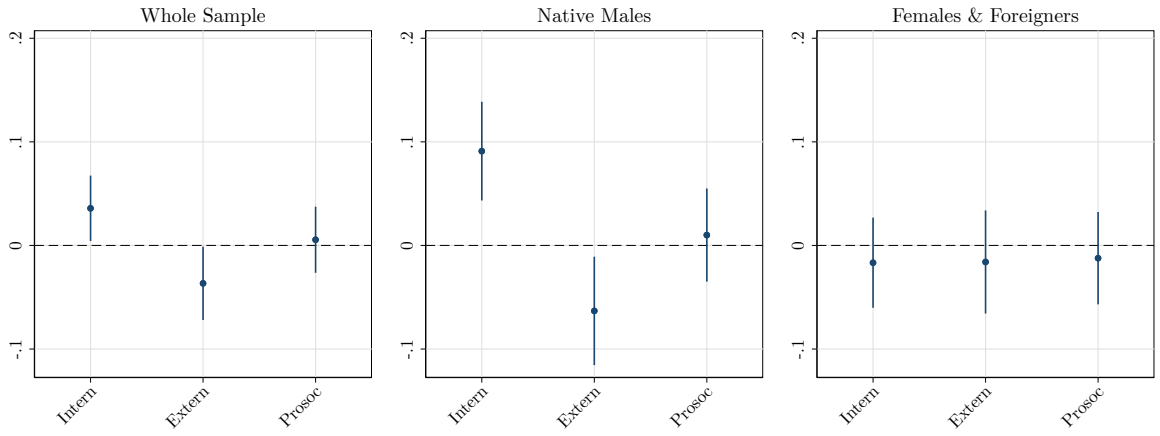
*or* SDQ measures (which are not penalized in the LASSO regression). Then, we run an OLS model that includes both set of variables, those that are related to discrimination concerns *and* those that are related to SDQ measures. These procedures are done without sample weights, which allows us to compare the point estimates with those of Appendix E.1.

The results are displayed in Figure A8, in the top panel for gender concerns, and in the bottom panel for concerns about racism. Starting with the top panel, it can be seen that even with the unweighted regression the results are qualitatively similar to those of the main analysis. Specifically, for the whole sample internalizing (externalizing) problems are associated with greater (lower) concerns about gender inequality. Moreover, the results are clearly stratified, driven by native males. Indeed, for females and foreigners, the results are close to zero and not statistically significant at usual levels of confidence.

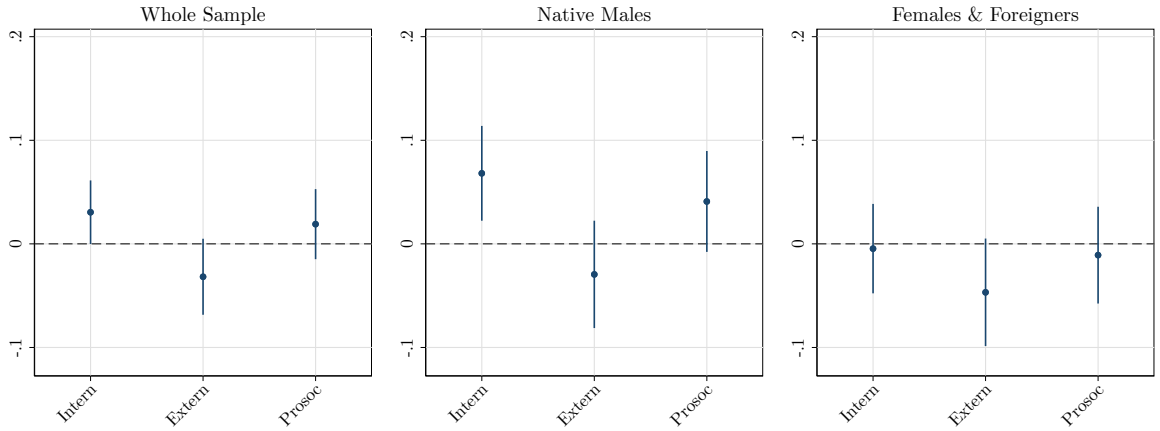
Turning to bottom panel analyzing racism concerns, the results are less clear cut. For the whole sample, there are no coefficients significantly associated with racism concerns. When turning to heterogeneous effects, however, the results seem to be driven by native males, as in the main analyses. For them, internalizing behaviors are associated with more concerns about racism. Prosocial behavior, on the other hand, goes in the expected positive direction, but it is not significant at usual levels of confidence, with p-values slightly larger than 0.05. For females and foreigners, the results are not statistically significant, and except for externalizing behaviors, they are very close to zero.

Figure A8: Association Between Childhood SDQ Scores and Adult Discrimination Concerns: Double-Selection

(a) Gender Inequality Concerns




(b) Racism Concerns



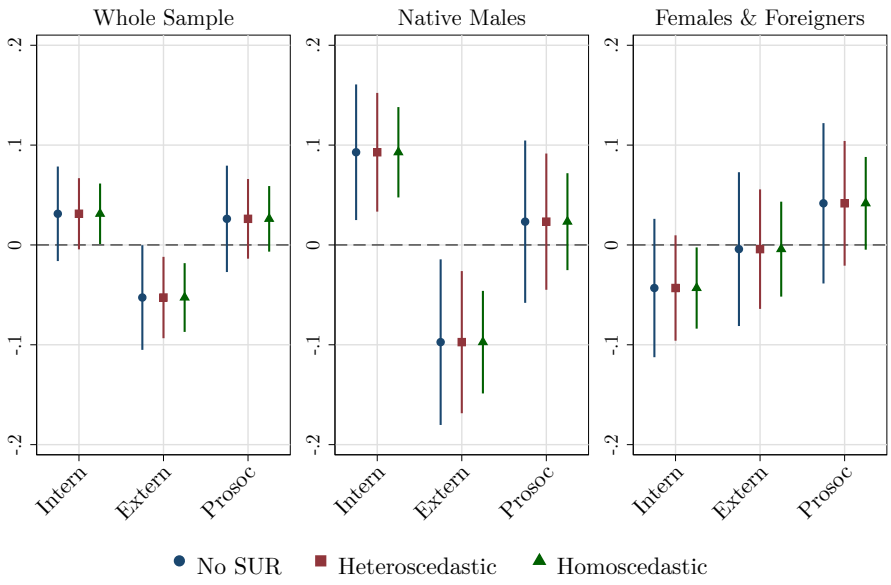

Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

## E.3 Standard Errors

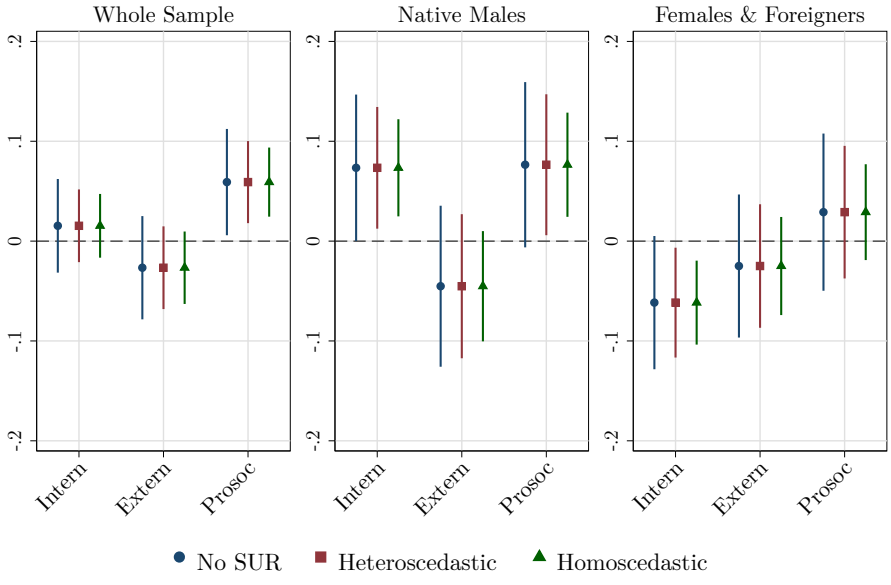
The main specification of the model used seemingly unrelated regression (SUR) framework, allowing the error terms between the two equations to be correlated, thereby increasing efficiency. Moreover, we assumed the errors to be correlated within schools. To show that the results are almost unsensitive to these decission, Figure A9 displays the results for regressing the two equations separated (blue dot), when assuming heteroscedastic errors that are independent between individuals (red square), and when assuming that errors are homoscedastic and independent between individuals (green triangle) (Jungkunz and Marx, 2024).

Figure A9: Association Between Childhood SDQ Scores and Adult Discrimination Concerns: Different Standard Errors

(a) Gender Inequality Concerns




(b) Racism Concerns




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

The main conclusion from this analysis is that the results are robust to different strategies used. As expected, not taking advantage of the fact that the error terms of the two equations are correlated leads to slightly higher confidence intervals. Indeed, only in this case, there is one coefficient that in the main specification was significant, but now it is not (the coefficient associated with prosocial behavior for racism concerns). When assuming that the errors are

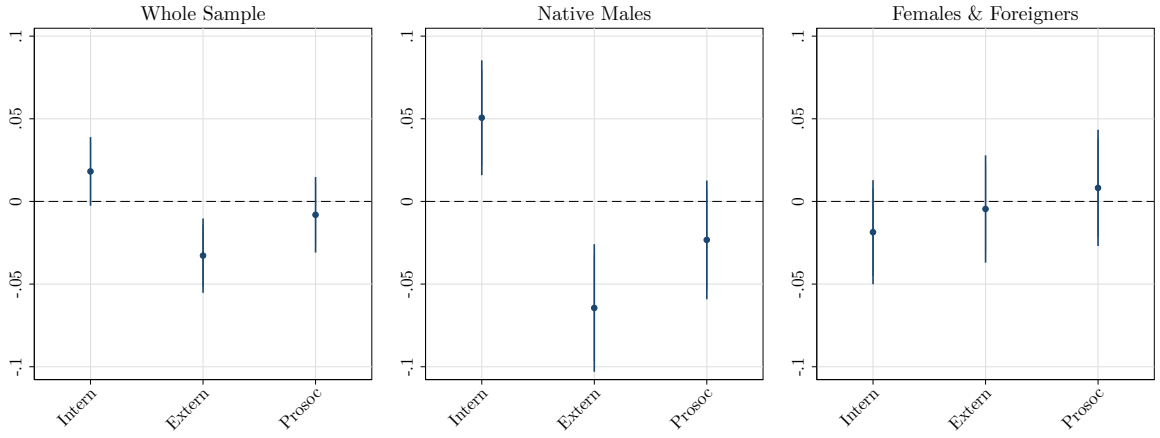
independent between individuals (both assuming heteroscedastic and homoscedastic errors) the results become more significant.

### E.4 Binary Dependent Variables

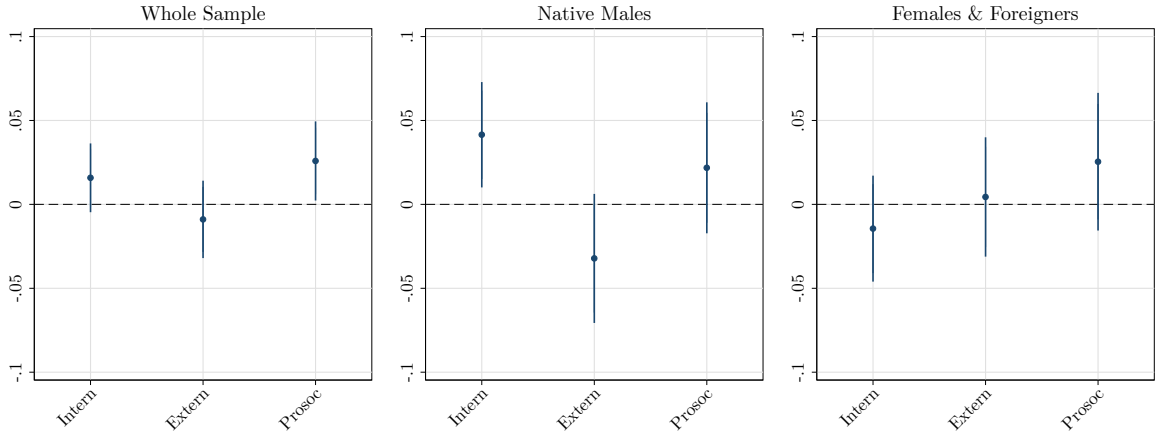
Even if discrimination concerns should be conceptualized as a continuous dimension, it may be that their political effects are discrete. For example, it may only affect political behavior when individuals are very concerned, but not otherwise. We dichotomize the dependent variables so that they take the value 1 for highly concerned individuals (7 or more) and the value zero for those who are not concerned. The results are shown in Figure A10. With a binary dependent variable, the results are qualitatively identical to the main results, and if anything, they become stronger. For native males, a one standard deviation increase (decrease) in internalizing (externalizing) behaviors in childhood is associated with about 5 percentage point increase in the probability of being very concerned about gender inequality. The associations are close to zero and are not statistically significant for females and foreigners. Looking at concern about racism as a dependent variable, we find that one standard deviation increase in internalizing behaviors among native males is associated with about a 4 percentage point higher likelihood of being very concerned about racism. However, no significant associations are found for females and foreigners.

Figure A10: Binary Dependent Variable

(a) Gender Inequality Concerns




(b) Racism Concerns



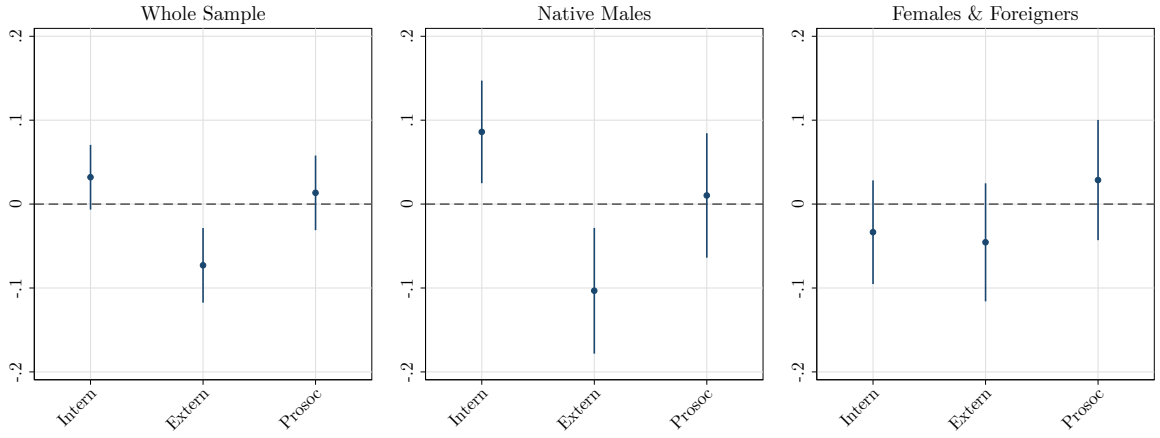

Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

## E.5 Different SDQ Measures

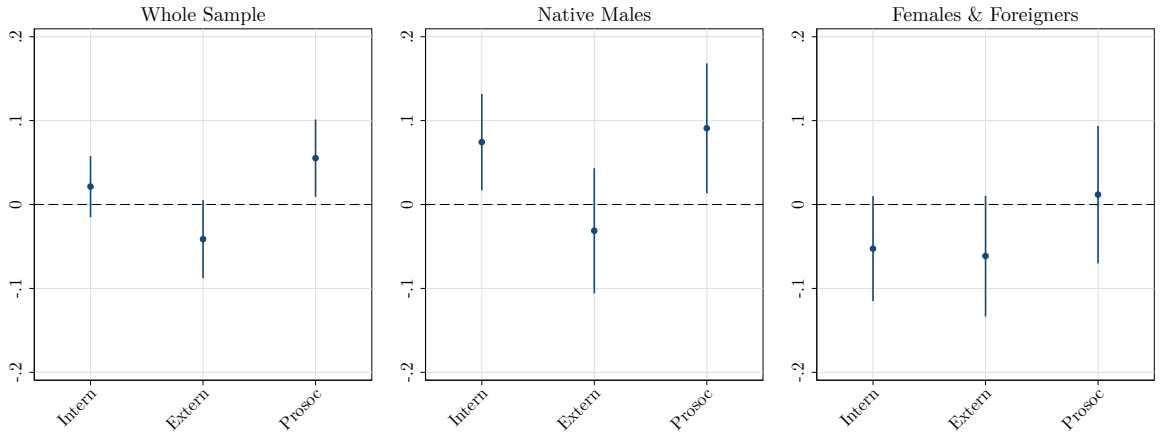
In this section, we consider two different SDQ measures. First, we analyze how the results change when we use an untransformed measure for each of the behavioral subscales measured with the SDQ questionnaire. That is, the internalizing, externalizing, and prosocial subscales consist of scales ranging from 0 to 10, with 0 indicating the absence and 10 indicating the full presence of the respective trait. These measures are standardized to facilitate the comparison of results. The results shown in Figure A11 are consistent with those of the main analysis.

Figure A11: Association Between Childhood SDQ Scores and Adult Discrimination Concerns: Untransformed SDQ Measure

(a) Gender Inequality Concerns




(b) Racism Concerns




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

Second, we consider five subscales of the SDQ measure instead of three. That is, following Goodman (1997), we divide the SDQ into five subscales: peers, emotional, hyperactivity and conduct problems, and prosocial behavior. It is important to note that the internalizing subscale used in the main analysis is composed of peers and emotional problems, while the externalizing subscale is composed of hyperactivity and conduct problems. The results are shown in Figure A12.

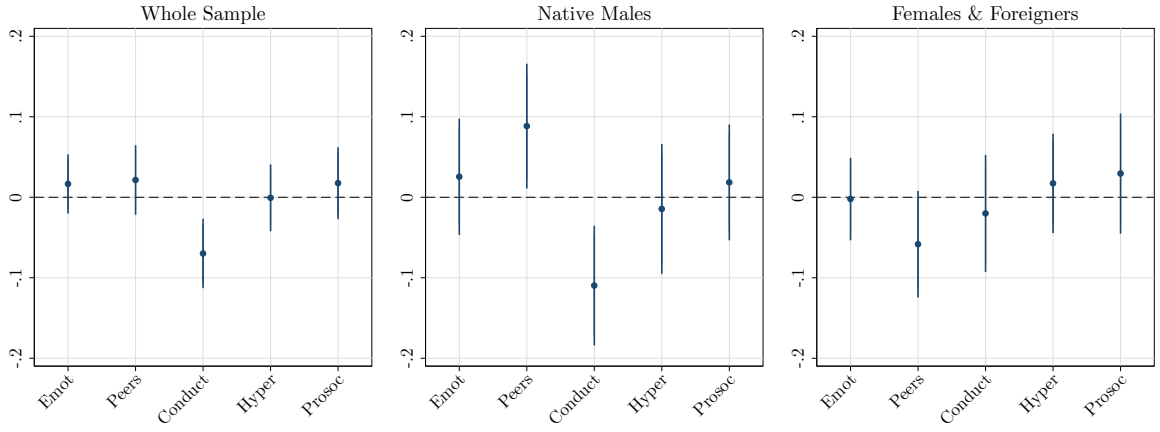
Figure A12a suggests that main results that linked externalizing problems with lower concerns about gender inequality are driven by conduct problems (and not by hyperactivity, which is estimated to be close to zero and not statistically significant. Focusing on native males, child-

hood peer problems are positively related to concerns about gender inequality in adulthood, while those with conduct problems are less likely to express such concerns. This suggests that the results found in the main analysis are mainly attributable to peers problems in the case of the internalizing subscales and to conduct problems in the case of the externalizing subscales. No significant associations are found for females and foreigners.

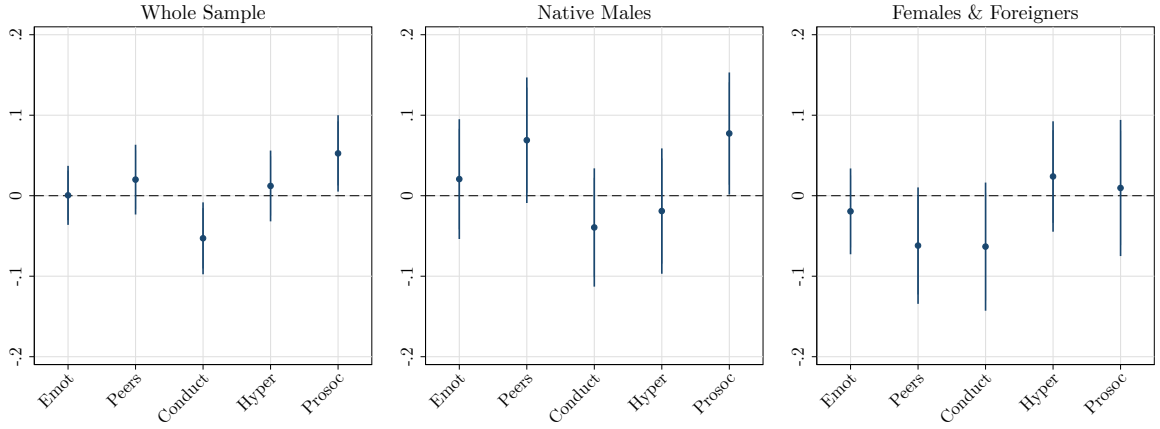
Looking at concerns about racism in Figure A12b, for the whole sample there are negative significant effects of conduct problems and positive effects of prosocial behaviors. Turning to analyze difference by groups, it seems that prosocial behavior is only relevant for native males, and that the dimension capturing the relationship with peers has positive effects that are statistically insignificant at usual levels of confidence (with a p-value$<$0.1). Again, for females and foreigners, none of the coefficients is statistically significant.

Figure A12: Association Between Childhood SDQ Scores and Adult Discrimination Concerns: Five SDQ Subscales

(a) Gender Inequality Concerns




(b) Racism Concerns




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

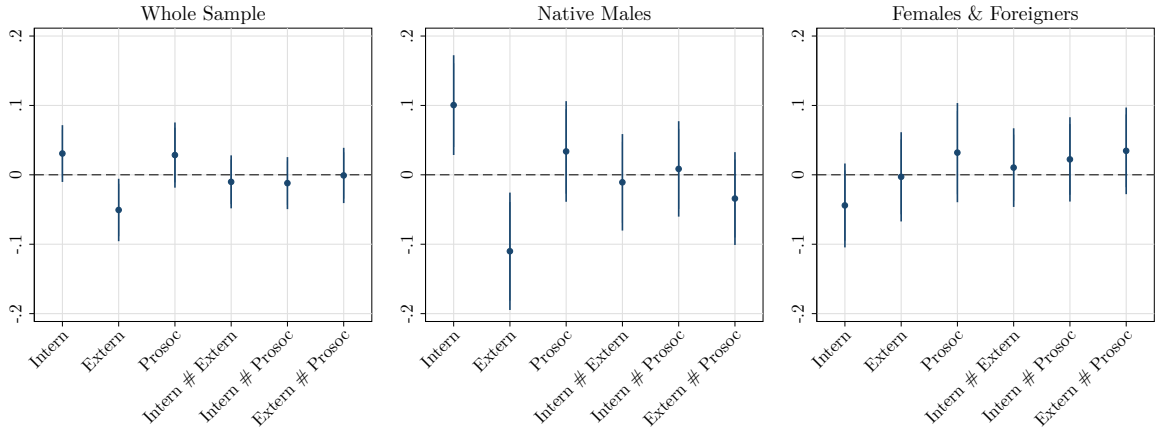
## E.6 Interactions Among SDQ Subscales

While psychological research claims that these three dimensions analytically capture different elements of traits and behaviors, it could be that there are interactive effects. To this end, we examine the association between the interaction between each pair of SDQ subscales and discrimination concerns. That is, we estimate Equation 1 including as explanatory variables the interaction of each pair of SDQ subscales. Indeed, since the variables are standardized, we show the coefficient associated with each dimension when the other dimensions are at their mean values (i.e., they take the value of zero). The estimated coefficients and their 95 confidence intervals are displayed in Figure A13. It can be seen that the results remain unchanged when the

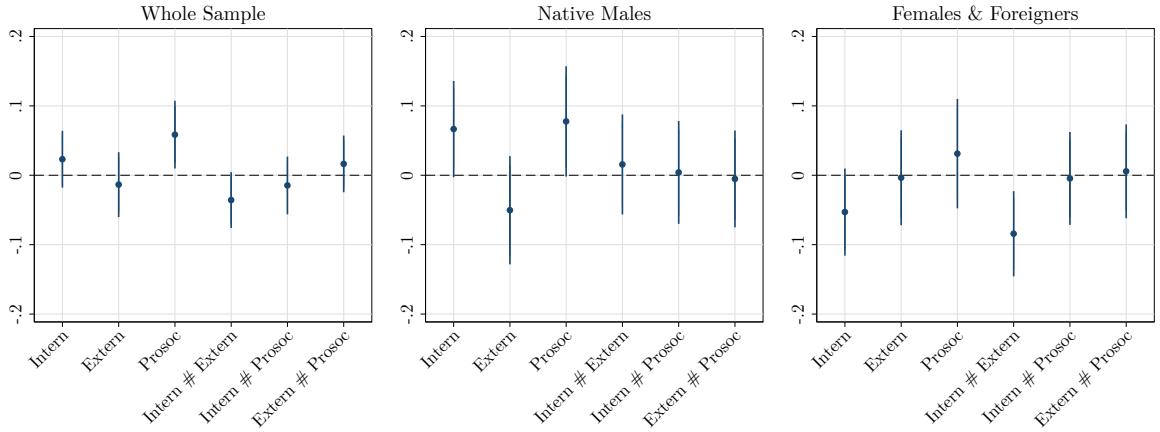
interactions are included. Moreover, all interactive effects are close to zero and not statistically significant (except for the interaction between internalizing and externalizing traits for females and foreigners in the case of racism concerns). This means that personal traits and behaviors do not interact in shaping discrimination concerns.

Figure A13: Interactive Effects

(a) Gender Inequality Concerns




(b) Racism Concerns




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

## E.7 The Role of Confounding

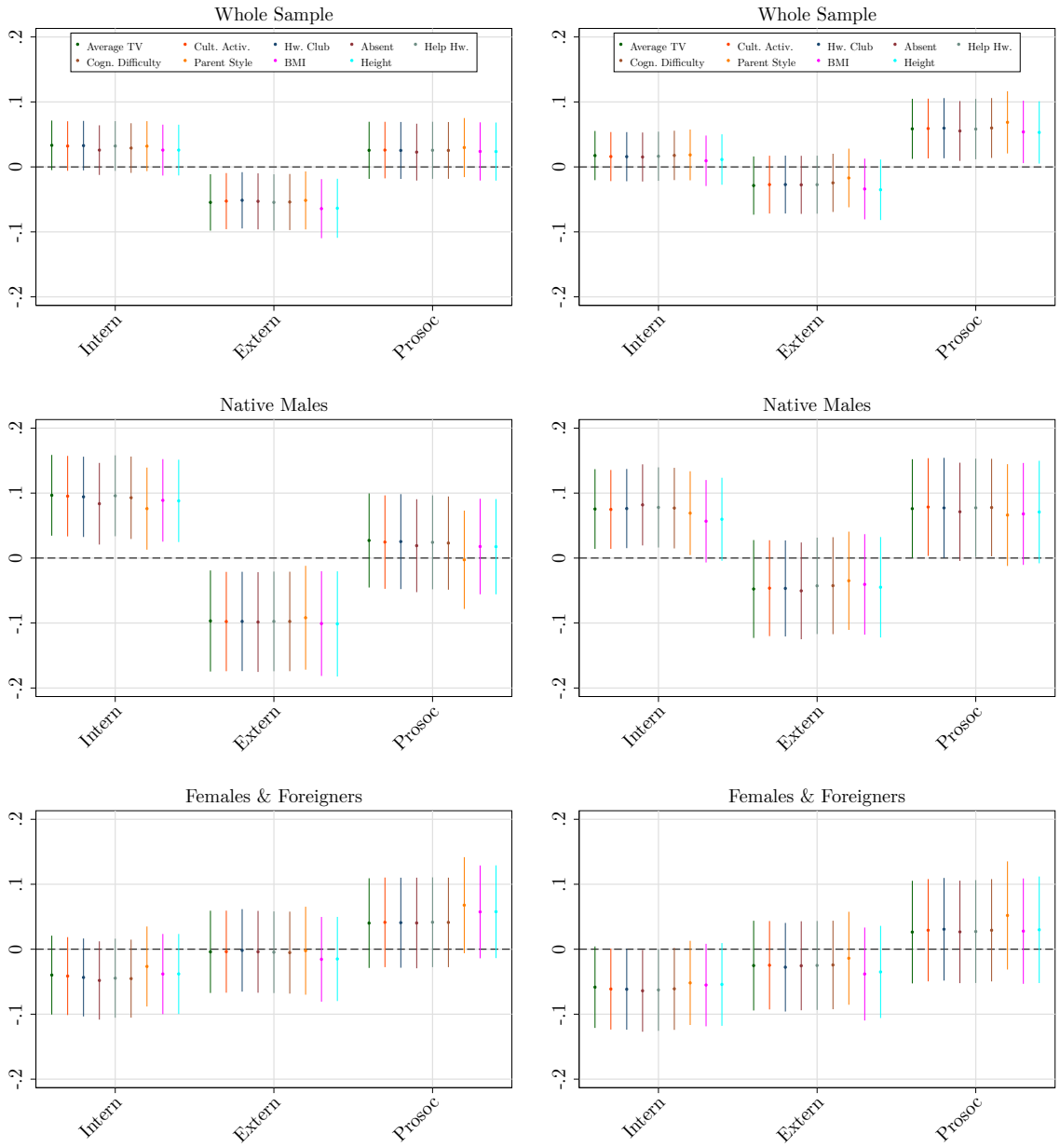
In this section, we estimate models including different set of controls that could explain SDQ measures and discrimination concerns. Specifically, we control for the average time the child spends watching TV, the mother's cultural activities, whether the child attends a homework club, the number of days the child did not go to school in the past year, whether the parents

helps the child with homework, whether the child has been diagnosed with a cognitive problem, parenting style (authoritative, authoritarian, permissive, and neglectful), the child's body mass index (BMI), and the child's height in centimeters. The latter two measures take into account genetic predispositions that could explain the child's behavior and future outcomes, which could be related to political concerns (Arunachalam and Watson, 2018; Burden, Herd, and Moynihan, 2024). The results are shown in Figure A14 and indicate that they are very stable when different controls are added.

Figure A14: Association Between Childhood SDQ Scores and Adult Discrimination Concerns: Adding Controls

(a) Gender Inequality Concerns

(b) Racism Concerns




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

In a second exercise, we perform a sensitivity analysis developed by Cinelli and Hazlett (2020). Its framework is based on the omitted variable bias (OVB) formula. This formula indicates how much the OLS results are biased depending on the correlation between a confounding variable and the explanatory and dependent variables. Extending this logic, they propose a framework that allows us to analyze how important unobserved confounding factors

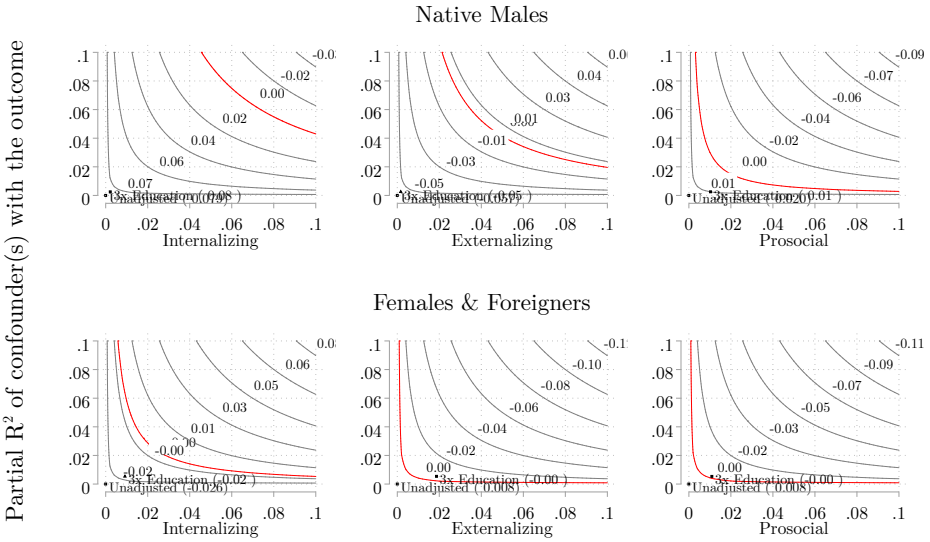
should be compared to observed factors in order to change the results obtained. Instead of correlations, they use the partial $R^2$, i.e. the percentage of variation in the explanatory and dependent variable explained by the confounding factor ($c$) ($R^2_{c,SDQ}$ and $R^2_{c,Y}$, respectively).

To perform this exercise, a relevant control variable is used as a benchmark. We use two family variables because family transmission is an important determinant of political preferences (Ojeda and Hatemi, 2015; O'Grady, 2019) and also of childhood traits and behaviors (Zumbuehl, Dohmen, and Pfann, 2021). In particular, we use their educational level (Panel (a)) and parenting style (Panel (b)). These analyses are performed without weights, as they are not supported by this method. The x-axis shows the percentage of variation in SDQ explained by these family measures after accounting for the effect of other controls (i.e. the $R^2_{c,SDQ}$). The y-axis shows the same information for gender inequality and racism concerns ($R^2_{c,Y}$). Shown in red are the different $R^2_{c,Y}$ and $R^2_{c,SDQ}$ values that would result in the associations being equal to zero.

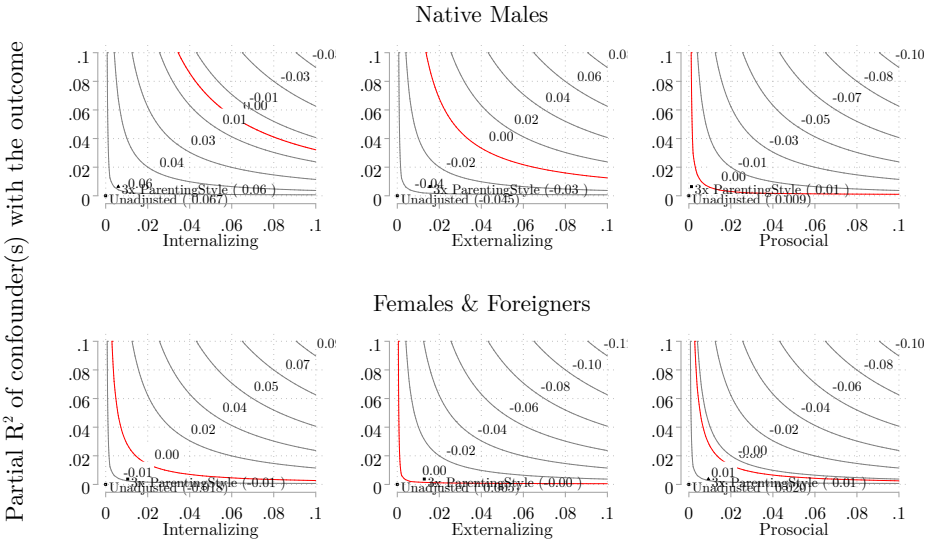
Figures A15 and A16 show the results of this exercise for gender inequality and racism concerns, respectively. Specifically, these figures display two points, one for the estimated coefficient without controlling for family characteristics and one for the case where the unobserved confounders have an effect three times as large as these family dimensions. For example, the upper left panel in Figure A15 shows how sensitive the relationship between internalizing behavior and concerns about gender inequality is to parental education. In this case, the first dot indicates that the relationship found would be 0.08 without controlling for parental education. If the unobserved confounding factor were three times as large as parental education, the coefficient would remain at 0.08. In all cases, the results are stable, indicating that it is unlikely that unobserved family characteristics are driving the results.

Figure A15: Sensitivity Analysis (Cinelli and Hazlett, 2020): Gender Inequality Concerns

(a) Parents' Education



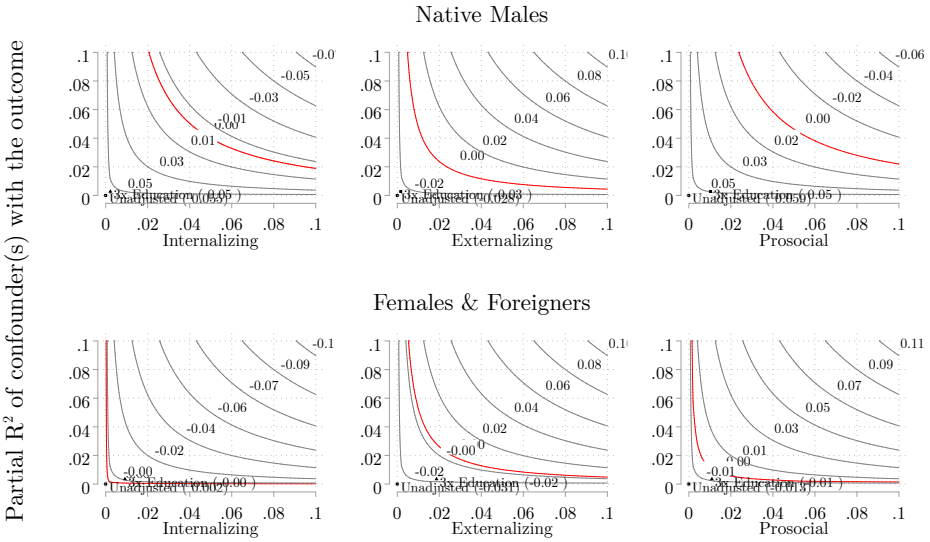

(b) Parenting Style



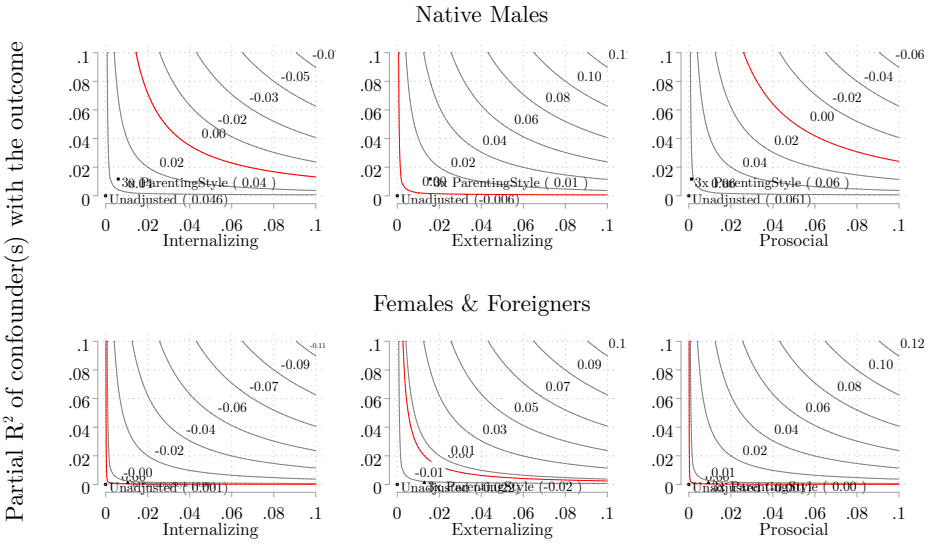

Note: Dots indicate the size of the association when not controlling for parents' dimensions and when including a control three times as important as the parents' dimensions. In red there are the different combinations of $(R^2_{c,Y}, R^2_{c,SDQ})$ that would yield the association equal to zero.

Figure A16: Sensitivity Analysis (Cinelli and Hazlett, 2020): Racism Concerns

(a) Parents' Education




(b) Parenting Style




Note: Dots indicate the size of the association when not controlling for parents' dimensions and when including a control three times as important as the parents' dimensions. In red there are the different combinations of $(R^2_{c,Y}, R^2_{c,SDQ})$ that would yield the association equal to zero.

## E.8 Separating between Females and Foreigners

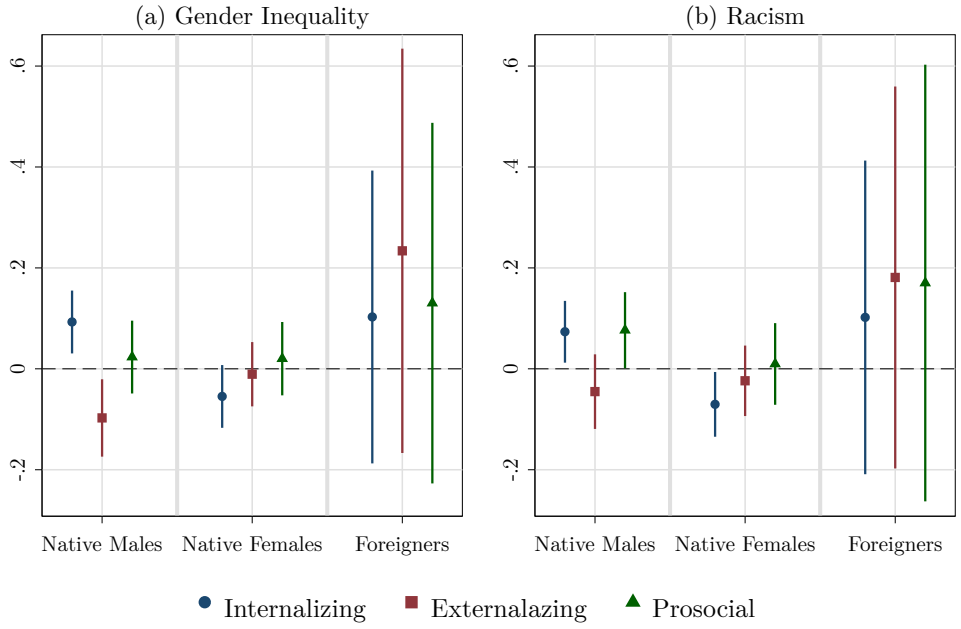
In the main text we have provided evidence of the relationship between behavioral traits and discrimination concerns for two main societal groups, native males on the one hand, and fe-

males and/or foreigners on the other. While we have presented evidence that is consistent with the idea that native males are driving the results, still it could be that behavioral traits are differently related to discrimination concerns for native females than for foreigners. The main potential problem is that for foreigners there are few observations compared to the number of covariates to be estimated (Belloni, Chernozhukov, and Hansen, 2014; Blackwell and Olson, 2022). Figure A17 and A18 show the results for the three groups (native males, native females, and foreigners), for the main SUR specification and for the double selection specification described in Appendix E.2, respectively.

Figure A17 shows that the results for native females are similar to the main results of the paper for females and foreigners. This is not surprising given that they represent the majority of the observations. For foreigners, we also find that there are not significant association between behavioral traits and discrimination concerns, however, this null effects are driven by large confidence intervals, which indicate that the point estimates are not very informative. Indeed, there are only 268 observations for foreigners, clustered at 115 schools.

Interestingly, by analyzing native females and foreigners separately, we can tentatively examine cases in which individuals are cross-pressured — situations in which they belong to a discriminated group in one dimension but not in another. For example, we examine whether childhood behavioral traits among native females are more strongly associated with concerns about racism (a form of discrimination that they may not personally experience) than with concerns about gender inequality. The results do not support this hypothesis: the estimated coefficients for both native females and foreigners are not significant. However, the results seem to be driven by native women. For foreigners, the coefficients are essentially positive, albeit they are not very informative because the small number of observations. Further research could try to explore how behavioral traits are related to discrimination concerns for this group.

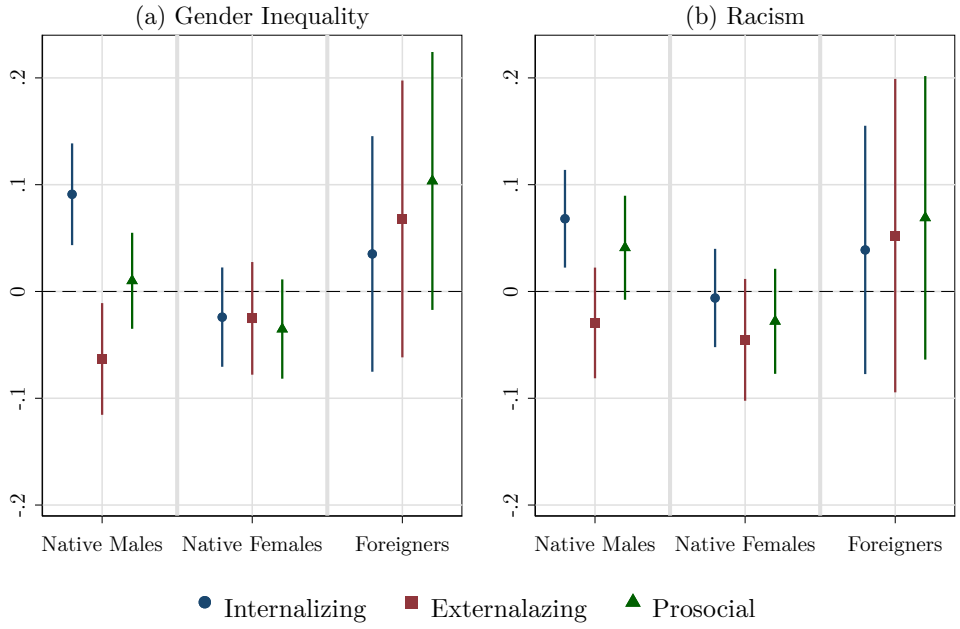
Figure A17: Heterogeneous effects by Native Males, Native Females, and Foreigners: SUR Approach




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

To mitigate the problems associated with overfitting, Figure A18 displays the results using the double selection approach described in Appendix E.2. The results are not statistically significant for either native females or foreigners. However, for the foreign-born, these results should be read with caution as they are not representative of the foreign population in Ireland.

Figure A18: Heterogeneous effects by Native Males, Native Females, and Foreigners: Double-Selection Approach




Note: 95% confidence intervals computed from robust standard errors clustered at the school level.

## Appendix F Discussion: Teachers' vs Parents' SDQ Scores

Fasching, Arceneaux, and Bakker (2023) find that parents' trait evaluations of their children are not associated with social conservatism. We have argued that this null association can be explained by the fact that they use parents' evaluations rather than teachers' evaluations. We explore this possibility in this appendix section.

Figure A19 shows the relationship between teachers' and parents' scores. More specifically, it is a binscatter showing the mean value of the parents ratings for each value of the professor ratings. Although a positive correlation can be observed, the relationship is far from being one-to-one. The key takeaway from Figure A19 is that the decision of which measure to use is critical. For example, for prosocial behaviors the correlation between parents' and teachers' reports is almost zero. The average prosocial behavior for parents is around 9 (over 10), for all values of teachers' reports.

Figure A19: Binscatter Relationship Parents' and Teachers' SDQ Scores

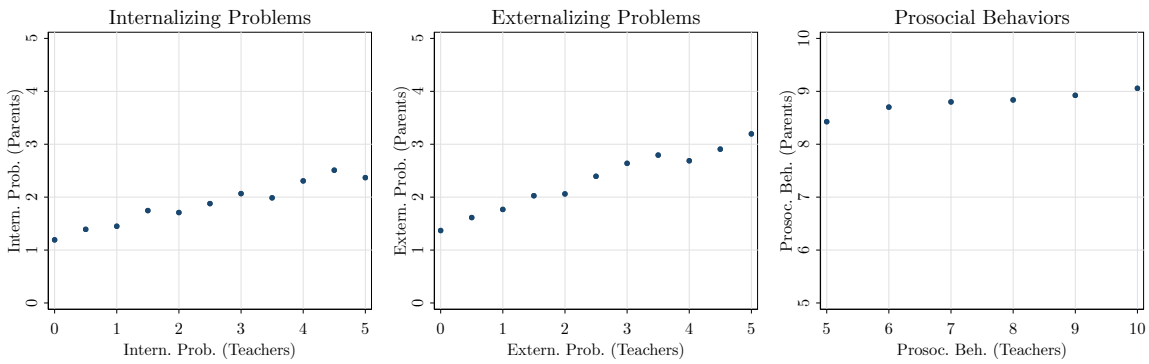



Table A4 shows the analyses performed using parents' SDQ scores as the main explanatory variables. Columns 1 to 3 analyze gender inequality concerns,and columns 4 to 6 racism concerns. Similar to Fasching, Arceneaux, and Bakker (2023), there is a weak and non-significant association between children's personality traits and political preferences in adulthood. These null coefficients may reflect greater random measurement error in parental reports—possibly due to the lack of a clear comparison group—which leads to attenuation bias, that is, biasing estimates toward zero.

Table A4: Association Between Parents' SDQ Scores and Discrimination Concerns

| | Gender Inequality | | | Racism | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| | All Sample | Nat. Males | Fem. & For. | All Sample | Nat. Males | Fem. & For. |
| Intern | 0.027 | 0.023 | 0.010 | 0.002 | 0.020 | -0.012 |
| | (0.019) | (0.033) | (0.027) | (0.020) | (0.038) | (0.029) |
| Extern | -0.034 | -0.049 | 0.006 | 0.018 | 0.000 | 0.043 |
| | (0.021) | (0.038) | (0.031) | (0.022) | (0.041) | (0.032) |
| Prosoc | 0.022 | 0.004 | 0.029 | 0.045* | 0.027 | 0.035 |
| | (0.020) | (0.035) | (0.027) | (0.021) | (0.036) | (0.033) |
| Observations | 4,729 | 2,065 | 2,664 | 4,729 | 2,065 | 2,664 |

Note: Robust standard errors are presented in parenthesis. All controls defined in Appendix B and school FE are included. * indicates significance at the 5% level, ** at the 1% level.

## References


Acharya, A., Blackwell, M., and Sen, M. (2016). "Explaining causal findings without bias: Detecting and assessing direct effects". *American Political Science Review* 110.3, pp. 512–529.

Arunachalam, R. and Watson, S. (2018). "Height, income and voting". *British Journal of Political Science* 48.4, pp. 1027–1051.

Belloni, A., Chernozhukov, V., and Hansen, C. (2014). "Inference on treatment effects after selection among high-dimensional controls". *Review of Economic Studies* 81.2, pp. 608–650.

Blackwell, M. and Olson, M. P. (2022). "Reducing model misspecification and bias in the estimation of interactions". *Political Analysis* 30.4, pp. 495–514.

Burden, B. C., Herd, P., and Moynihan, D. P. (2024). "The unsettled effect of physical height on political preferences". *Political Science Research and Methods*, pp. 1–10.

Cinelli, C. and Hazlett, C. (2020). "Making sense of sensitivity: Extending omitted variable bias". *Journal of the Royal Statistical Society Series B: Statistical Methodology* 82.1, pp. 39–67.

Fasching, N., Arceneaux, K., and Bakker, B. N. (2023). "Inconsistent and very weak evidence for a direct association between childhood personality and adult ideology". *Journal of Personality*.

Goodman, R. (1997). "The Strengths and Difficulties Questionnaire: a research note". *Journal of Child Psychology and Psychiatry* 38.5, pp. 581–586.

Jungkunz, S. and Marx, P. (2024). "Material deprivation in childhood and unequal political socialization: the relationship between children's economic hardship and future voting". *European Sociological Review* 40.1, pp. 72–84.

Ojeda, C. and Hatemi, P. K. (2015). "Accounting for the child in the transmission of party identification". *American Sociological Review* 80.6, pp. 1150–1174.

O'Grady, T. (2019). "How do economic circumstances determine preferences? Evidence from long-run panel data". *British Journal of Political Science* 49.4, pp. 1381–1406.

Zumbuehl, M., Dohmen, T., and Pfann, G. (2021). "Parental involvement and the intergenerational transmission of economic preferences, attitudes and personality traits". *The Economic Journal* 131.638, pp. 2642–2670.