Emergence and Stability of Political Attitudes and Preferences

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Preface

> *"Far from being something which is given in the beginning, which remains fixed and acts upon the surrounding world, personality evolves under the impact of the social environment and can never be isolated from the social totality within which it occurs."*

- Theodor W. Adorno, Else Frenkel-Brunswik, Daniel J. Levinson, and R. Nevitt Sanford, *The Authoritarian Personality*

Western democracies are at a crossroads as right-wing populism gains momentum, social divides deepen, and political polarization increases. The recent rise of populist movements and leaders has led to concerns about the erosion of social and democratic norms and has created the potential for increased authoritarianism. Understanding how authoritarianism and populism find their way into society and how they reproduce is crucial to be able to combat both. At the center of it all is the individual, who is the most important piece in democracies, since all political actions boil down to individuals holding attitudes, having preferences, and ultimately voicing and acting upon them.

The three essays of this thesis are centered around the questions of how attitudes and preferences of individuals are formed and how this affects their behavior, especially in the field of politics. I address the role that childhood environment and individual characteristics play in the formation of authoritarianism among adolescents, how the likelihood of expressing attitudes and preferences is malleable by a childhood mentoring intervention, and ultimately how populist speech reproduces in the German parliament based on exposure to right-wing populists. Therefore, this thesis focuses on the formation, expression,

and stability of attitudes and political rhetoric.

In the three essays in this thesis, I combine different methods used in economics. The first project provides suggestive evidence on the determinants of authoritarianism based on correlational relationships. The second essay is exploiting a randomized controlled trial of a childhood mentoring intervention to analyze the effect of the intervention on the likelihood of expressing political attitudes based on socioeconomic status (SES). In the third project, we are using a difference-in-differences setting to analyze how the entry of right-wing populists into a parliament changes the rhetoric of politicians.

In social sciences, there is a long-standing argument that the formation of crucial attitudes, preferences, and skills of individuals is rooted in childhood and adolescence (Krosnick and Alwin 1989, Alwin and Krosnick 1991, Heckman and Mosso 2014). Early research has argued that socioeconomic conditions during childhood shape certain attitudes and preferences. Moreover, a strong emphasis has also been placed on parents and the family in the formation process (Bisin and Verdier 2001, Dohmen et al. 2012, Zumbuehl, Dohmen, and Pfann 2021). Chapter 1, based on the project "Testing Adorno: Formation and Intergenerational Transmission of Authoritarian Attitudes", evaluates how the socioeconomic environment and parental characteristics, as well as parental behavior, affect the authoritarian attitudes of their offspring. The concept of authoritarianism was popularized and refined in the 1940s and 1950s at the University of California, Berkeley by Adorno et al. (1950) in their seminal book "The Authoritarian Personality". Based on the experiences of Nazi Germany, the authoritarianism concept aims at understanding who the potential supporters of fascist regimes are and what determines authoritarianism. In general, authoritarian individuals are willing to submit to established authorities, favor strict adherence to conventional rules, and show aggressive attitudes toward others if they believe they are in the right. Adorno et al. (1950) conducted an exploratory research analysis to identify what determines who becomes an authoritarian individual. The key conclusions of Adorno et al. (1950) are that socioeconomic conditions during childhood and parental attitudes, as well as parental behavior toward the child, might determine authoritarianism. However, since Adorno et al. (1950) only surveyed adult individuals and inferred by

their accounts given in quantitative and qualitative interviews that childhood and adolescence are the crucial stages in the development of (authoritarian) attitudes, in the project, I assess whether the findings of Adorno et al. (1950) still hold more than 70 years later and in a sample that includes children and their parents. In the analysis, I evaluate the role the gender of the child plays, the level of intergenerational transmission of authoritarianism from parents onto their offspring, and the parenting style parents employ in child-rearing. Furthermore, I analyze the parenting goals that parents have, while also looking at the relationship between cognitive ability, low socioeconomic status of individuals, and authoritarianism. I find a sizeable intergenerational transmission of authoritarianism, which is also reflected by parental goal promotion. I find that cognitive ability is negatively correlated with authoritarianism and that there is a significant gender gap, with males showing higher authoritarianism scores than females. Furthermore, the results show that low socioeconomic status correlates positively with authoritarianism. The results reveal that many of the findings of Adorno et al. (1950) still hold and underline that childhood and adolescence are crucial stages in the formation of attitudes.

While the first chapter shows that determinants of (political) attitudes can be found in the environment of the child, the subsequent two chapters show that the expression of attitudes and certain political behavior can be changed by external factors.

Socioeconomic status and intergenerational transmission do not necessarily determine the whole formation of attitudes. Socioeconomic status is often reflected in differences in the expression of political attitudes, but also in gaps in political participation that are already visible among children and adolescents (van Deth, Abendschön, and Vollmar 2011, Holbein and Hillygus 2020). However, to some extent, these socioeconomic differences can be mitigated by using appropriate interventions in childhood. Childhood and adolescence are often found to be the crucial time for the formation of attitudes that remain stable throughout life (Prior 2010). The SES gap in the likelihood of expressing attitudes, as measured by resorting to item nonresponses, is distinctly unique to political items in surveys (Berinsky 2002b, Berinsky and Margolis 2011, Laurison 2015). These gaps have detrimental implications, such as potentially creating selection biases in surveys (Rapoport 1979)

and especially when surveys are used as barometers to justify and implement policies (Berinsky 1999). Chapter 2, presents the project "The Formation of Political Attitudes: Causal Evidence From a Childhood Intervention", which is joint work with Fabian Kosse. Here, we show that by using a randomized controlled trial with an early childhood intervention that enriches the environment of elementary school children, socioeconomic status gaps in the likelihood of expressing political attitudes, in terms of using item nonresponses, can be causally mitigated. The intervention is able to close SES gaps in item nonresponses, such as *Don't Know* responses, on the Left-Right Self-Assessment item commonly used in research on political attitudes. Furthermore, the intervention also mitigates the likelihood of providing an item nonresponse on the question, which party a respondent would vote for if there were a federal election coming up. Finally, the treatment also closes SES gaps in the likelihood of stating "Don't Know" on political issues, such as redistribution. By using incentivized responses from dictator games, asking the respondents to distribute an endowment between themselves and charitable organizations tackling certain political issues (poverty, refugees, and climate change), we are able to rule out that concealing extreme attitudes by resorting to item nonresponses drives the SES gap in the first place, and hence not a shift from extreme attitudes to moderate attitudes is likely to be the channel of how the treatment mitigates SES gaps. Furthermore, the treatment is also not shifting the political attitudes of adolescents in the sample, but rather mainly affects the likelihood of expressing attitudes. The findings are fairly robust to controlling for parental item nonresponses. The results relate to research on the formation and fostering of noncognitive skills in childhood (such as Heckman (2006), Cunha and Heckman (2007)) and especially in the context of political participation (such as Sondheimer and Green (2010), Holbein (2017), Holbein et al. (2022)). In addition, to show that SES gaps in the likelihood of expressing political attitudes, political interest, and in political participation are a general phenomenon not only specific to my data, we use data from the German General Social Survey and the European Social Survey.

In the first two projects, I show the role of certain socioeconomic conditions in the formation of attitudes and the role of changing external conditions in childhood and adoles-

cence. The first project shows that the environment and especially parents have a crucial impact on the attitudes that adolescents hold. The second project shows that the likelihood of expressing attitudes, which is a prerequisite for political participation, is malleable by using adequate interventions in childhood that put the treated children on different life trajectories. In the final project of this thesis, I show that even in adulthood, behavior in the political arena is still malleable by, respectively, susceptible to, changes in environmental conditions. More specifically, even among professional politicians, external shocks are able to change their behavior in terms of the rhetoric they use.

The last project of this thesis in chapter 3 investigates how the rhetoric of politicians is affected by exposure to right-wing populist politicians in parliament. The project is titled "Is Right-Wing Populist Rhetoric Contagious? Evidence from Parliamentary Speeches in Germany" and is joint work with Emilio Esguerra, Felix Hagemeister, and Tim Leffler. Based on the current rise of right-wing populism in many countries (Guriev and Papaioannou 2022), we investigate how the entry of the AfD into the German Bundestag affected the rhetoric used by non-AfD Members of Parliament (MPs). In 2017 the AfD entered the German Bundestag as the first right-wing populist party in the history of the Federal Republic of Germany. This came as a shock to the political landscape, especially the large share of votes the AfD received, which made the AfD the third largest party in the Bundestag and the largest opposition party. We exploit exogenous variation in the relative exposure to AfD politicians in the committees of the German Bundestag to identify the causal effect of this exposure on the similarity of rhetoric and populist words used in speeches in the plenary sessions of the Bundestag. For our dependent variables, we look for one at the standardized cosine similarity of a speech to the corpus of AfD speeches in parliament, further we look at the standardized cosine similarity to speeches of an extreme right-wing populist politician of the AfD, Björn Höcke, which he gave at AfD rallies. Finally, we also investigate the use of populist words as defined by a German-language populism dictionary. In a difference-in-differences setting, we explore the variation in individual exposure to AfD politicians in the Bundestag committees. Our results show that a higher exposure of non-AfD politicians to right-wing AfD politicians culminates in a

higher convergence of rhetoric, as expressed by a higher cosine similarity to AfD speech. This also holds for the cosine similarity to Höcke speeches and the populism dictionary approach. We find that these results are specific to exposure to AfD MPs. Such language can have detrimental effects on political attitudes, social norms, and even violent behavior (Bursztyn, Egorov, and Fiorin 2020, Müller and Schwarz 2020, Müller and Schwarz 2021, Djourelova 2023). This means that if right-wing populist language becomes normalized, for instance, via repetition even in a negative way, and thus loses its repellent effects, social norms can erode, and political rhetoric has implications that go beyond parliamentary speeches.

Chapter 1

Testing Adorno: Formation and Intergenerational Transmission of Authoritarian Attitudes

1.1 Introduction

In the 1940s Theodor W. Adorno, Else Frenkel-Brunswik, Daniel J. Levinson, and R. Nevitt Sanford initiated, shaped by the experience of Hitler Germany, a large-scale project to understand what type of person is a potential supporter of fascist regimes and is prone to outgroup prejudice. This project culminated in the seminal book *The Authoritarian Personality* (1950), in which the authors developed the concept of authoritarianism and made it quantifiable. Generally speaking, authoritarian individuals are persons who are willing to submit to (perceived) established authorities, who favor strict adherence to conventional rules, and who show aggressive attitudes towards others if they believe they are in the right. With more than 3,000 respondents in various studies, Adorno et al. (1950) generated a tremendous amount of survey results and qualitative interviews, which guided the generation of their hypotheses.

More than 70 years after *The Authoritarian Personality*, we set out to empirically assess

whether the main hypotheses of Adorno et al. (1950), especially with regard to the determinants of authoritarianism in childhood and adolescence, still hold. We focus on the role parents play in the intergenerational transmission of authoritarian attitudes, both via parenting style and parenting goals. In addition, we also assess the role of cognitive ability, socioeconomic status, and gender. Since *The Authoritarian Personality* was written with the German experience in mind, we use a German sample of children and their parents. We use the briq family panel data (Falk and Kosse 2021), which allows us to track the development of authoritarianism and offers a wide range of individual and household characteristics. In contrast to previous studies, our data enable us to a comprehensive approach in which we can test all main hypotheses using a single data set. Furthermore, we elicit data during childhood and adolescence directly, as opposed to retrospective reporting.

The current relevance of authoritarianism is underlined by at least two major global events. First, the rise of authoritarian leaders has become clearly visible over the past years, with Donald Trump winning the 2016 presidential election and gathering tremendous support in the 2020 election, as well as right-wing Jair Bolsonaro and Rodrigo Duterte becoming elected leaders in Brazil and the Philippines. This phenomenon can also be seen in Europe, with Viktor Orbán in Hungary and Jarosław Kaczyński in Poland. Voters of authoritarian leaders often have authoritarian attitudes themselves (MacWilliams 2016, Choma and Hanoch 2017). Second, recently the concept has received increasing interest due to the ongoing COVID-19 pandemic. There is a loud minority of people who express their skepticism about COVID-19 prevention measures, such as masking or vaccination. Authoritarianism has been found to correlate with the rejection of prevention measures (Murphy et al. 2021) and the belief in conspiracy theories (Richey 2017, Wood and Gray 2019). Prichard and Christman (2020) also find that authoritarianism is negatively correlated with concerns about one's personal health and the health of fellow citizens (in relation to COVID-19), as well as with wearing masks when out in public. Authoritarianism is also negatively correlated with the importance ascribed to listening to advice given by experts and scientists.

1.2 The Authoritarianism Concept

The quantifiable concept of authoritarianism has its roots in the F(ascist)-scale, developed by Adorno et al. (1950), who aimed to create a scale that makes the latent construct of authoritarianism more tangible. The F-scale was constructed with the intention to identify the supporters of authoritarian, respectively, fascist politicians and parties.

Adorno et al. (1950) already assumed that personality is formed by the environment, especially in early childhood and adolescence. They assumed that the family setting and socioeconomic factors are crucial in the formation of authoritarian attitudes. One way of instilling attitudes in offspring is through child-rearing practices by parents. The rearing of children with little to no parental warmth and strict obedience and discipline is a practice that helps to foster authoritarian attitudes (Adorno et al. 1950).

An updated and improved version of the authoritarianism concept was proposed by Altemeyer (1981), with the Right-Wing Authoritarianism Scale (RWA). The RWA measure is currently seen as the standard scale of authoritarianism and is based on the F-scale. Altemeyer's RWA concept has been repeatedly found to correlate with outgroup prejudice and discrimination (Altemeyer and Hunsberger 1992, Altemeyer 2004, Duckitt 2006, Asbrock, Sibley, and Duckitt 2010, Dhont and Hiel 2012).

A short and economical version of the RWA scale is the KSA-3 Short Scale (*Kurzskala Autoritarismus*) developed by Beierlein et al. (2014), which is also validated for German speakers. We use this scale for both children and parents in our sample. The nine items of the KSA-3 short scale are listed in Table 1.1. Here, three items can be combined into one subdimension of authoritarianism each. Those subdimensions are authoritarian aggression, authoritarian submission and conventionalism. The authoritarianism score we use in our analysis is the average score of the items, which is then z-score standardized.

Table 1.1: KSA-3 Short Scale

1. "Society should come down hard against outsiders and slackers."	Aggression
2. "Troublemakers should clearly feel that they are unwanted in society."	
3. "Societal rules should be enforced without mercy."	
4. "We need strong leaders so that we can live safely in society."	Submission
5. "People should leave important decisions in society to leaders."	
6. "We should be thankful for leaders who tell us exactly what we are allowed to do."	
7. "Traditions should be tend to and maintained."	Conventionalism
8. "Established practices should not be questioned."	
9. "It is always best to do things in the usual way."	

Notes: Answer options: strongly disagree; disagree; undecided; agree; strongly agree; n.a.; the German version can be found in section A.7 in the Appendix.

1.3 Hypotheses

We derive our hypotheses from the seminal work of Adorno et al. (1950), who argued that

> "[...] the effects of environmental forces in moulding the personality are, in general, the more profound the earlier in the life history of the individual they are brought to bear. The major influences upon personality development arise in the course of **child training** as carried forward in a **setting of family life**. What happens here is profoundly influenced by **economic and social factors**. It is not only that each family in trying to rear its children proceeds according to the ways of the social, ethnic, and religious groups in which it has membership, but crude economic factors affect directly the parents' behavior toward the child. This means that broad changes in social conditions and institutions will have a direct bearing upon the kinds of personalities that develop within a society" (Adorno et al. 1950, 5-6).

Following Adorno et al. (1950), we derive six hypotheses in Table 1.2, which will be presented in more detail in the following.

Intergenerational Transmission The process of attitude transmission from parents to their child expressed through the parenting style during childhood and adolescence, which

Table 1.2: Hypotheses

1.	Males display higher levels of authoritarianism than females.
2.	Authoritarianism is transmitted from parents onto their offspring.
3.	The parenting style employed by the parents forms authoritarian attitudes in the child, with a warm/caring parenting style correlating with lower authoritarianism.
4.	Parenting goals are crucial determinants of authoritarianism.
5.	Cognitive ability of parents and children is negatively correlated with authoritarianism.
6.	Low socioeconomic status of the household is positively correlated with authoritarianism.

is the time of attitude formation, is considered the most crucial determinant of authoritarianism in Adorno et al. (1950).

Adorno et al. (1950, 337) state that authoritarian attitudes "must be assumed to originate, as far as the individual is concerned, in the family situation. Here the growing child learns for the first time to handle interpersonal relations." Furthermore, the family is considered to be a crucial source of prejudice (Adorno et al. 1950, 384), which is fostered via an

> "[...] orientation toward power and the contempt for the allegedly inferior and weak [...] must likewise be considered as having been **taken over from the parents' attitude toward the child**. The fact that his helplessness as a child was exploited by the parents and that he was forced into submission must have reinforced any existing antiweakness attitude." (Adorno et al. 1950, 387).

At the same time, the family can also be a bulwark against authoritarianism contingent on the behavior of parents toward the child (Adorno et al. 1950, 971-972). Imitation of parents is one potential way of transmission, as expressed by "The individual's relation to parental authority, particularly his disposition to be submissive or critically independent, appears to be a basic personality trend which partially determines his political party preference and his ideology about group relations." (Adorno et al. 1950, 192).

Parenting Style and Parenting Goals Adorno et al. (1950, 387) argue that "Prejudiced

individuals thus tend to display ”negative identification” with the weak along with their positive though superficial identification with the strong." This underlines the importance of how parents behave during interactions with and in the the process of raising their child. More specifically, Adorno et al. (1950) emphasize that a warm and caring parenting style translates into lower authoritarianism scores of the child/adolescent: "**Unprejudiced individuals**, on the other hand, seem to be on better terms with themselves, due perhaps to the fact that they have been **more loved and accepted by their parents**." (Adorno et al. 1950, 441).

In interviews with highly authoritarian individuals, Adorno et al. (1950) found that a feeling of victimization, represented by "being neglected, unjustly disciplined, picked on or otherwise unfairly treated [...]" (Adorno et al. 1950, 347) correlates positively with authoritarianism. A strict parenting style and being treated not as an equal by parents, but rather as a child (irrespective of actual age), is seen to contribute to high authoritarianism scores (Adorno et al. 1950, 348). Parents of high-scoring authoritarian individuals are typically described as disciplinarians (Adorno et al. 1950, 349), whereas the parents of low-scoring individuals are described as friendly in the interaction with the child (Adorno et al. 1950, 360) and having "spent a great deal of time playing" and "doing things with their sons" (Adorno et al. 1950, 361). The punishment of the child by the parents is described as arbitrary by high-scoring individuals (Adorno et al. 1950, 374) and seen

> "[...] as a force outside of the child, to which at the same time he must submit. The values in question are primarily the values of adult society: conventions and rules helpful for social climbing but rather beyond the natural grasp of the child. At the same time this **type of value lays the foundation for an attitude of judging people according to external criteria, and for the authoritarian condemnation of what is considered socially inferior.**" (Adorno et al. 1950, 372).

Whereas the type of discipline employed by low-scoring authoritarian parents accounts for the "cooperation and understanding of the child and makes it possible for him to as-

similate to it."(Adorno et al. 1950, 372). Therefore, a caring and loving parenting style is likely to lead to lower authoritarianism (Adorno et al. 1950, 441), whereas vice versa applies to a distant type of parenting style with arbitrary punishment of the child and a relationship based on sparingly, inconsistently, and conditionally given love by the parent (Adorno et al. 1950, 455). The concept of authoritarianism as a measure of outgroup distaste is paraphrased by Adorno et al. (1950) as:

> "Since the unprejudiced child as a rule does not seem to have to submit to stern authority – a fact supported by interviews with the parents – he can afford in his later life to do without strong authority, and he does not need to assert his strength against those who are weaker. The **"antiweakness" attitude** referred to above as characteristic of the prejudiced child seems thus to be **directly related to the fearful submission to authority**."(Adorno et al. 1950, 482-483).

The parenting style parents employ is closely linked to the values and goals parents want to transmit onto their child, which are in turn potential determinants of authoritarianism. Especially, highly conventional parenting goals, such as an overemphasis on cleanliness (Adorno et al. 1950, 442) or adapting and conforming to society and groups and not deviating in any form (Adorno et al. 1950, 385-386). Adorno et al. (1950) state:

> "**Prejudiced subjects tend to report a relatively harsh and more threatening type of home discipline** which was experienced as arbitrary by the child. Related to this is a tendency apparent in families of prejudiced subjects to base interrelationships on rather **clearly defined roles of dominance and submission in contradistinction to equalitarian policies**. In consequence, the images of parents seem to acquire for the child a forbidding or at least distant quality. Family relationships are characterized by **fearful subservience** to the demands of the parents and by an **early suppression of impulses** not acceptable to them. The **goals** which such parents have in mind in rearing and training their children tend to be **highly conventional**. The status-anxiety so often found in families of prejudiced subjects is reflected in the adoption of a rigid

> and externalized set of values: what is socially accepted and what is helpful in climbing the social ladder is considered "good", and what deviates, what is different, and what is socially inferior is considered "bad". With this narrow path in mind, the parents are likely to be intolerant of any manifestation of impulses on the part of the child which seems to distract from, or to oppose, the desired goal. The more urgent the "social needs" of the parents, the more they are apt to view the child's behavior in terms of their own instead of the child's needs."(Adorno et al. 1950, 385).

This, in turn, translates to higher authoritarian attitudes according to Adorno et al. (1950, 385), since "the suppressed yet unmodified impulses find one of their distorted outlets and emerge with particular intensity. In particular, moral indignation first experienced in the attitude of one's parents toward oneself is being redirected against weaker outgroups." Therefore, parents tend to "transmit mainly a set of conventional rules and customs [...]" (Adorno et al. 1950, 386).

Cognitive Ability The relationship between cognitive ability, respectively educational attainment, and authoritarianism was hypothesized and found by Adorno et al. (1950) to be negative (Adorno et al. 1950, 280-284). Regarding cognitive ability Adorno et al. (1950, 281) state that "ethnocentrism and years of education ought to be negatively correlated, that is, the more education the less the ethnocentrism" and "**correlations between IQ and the individual F items might well be obtained in future research**." (Adorno et al. 1950, 284).[1] Further, Adorno et al. (1950, 287) state "It is likely, though far from a demonstrated fact, that college graduates are less ethnocentric than high school graduates, who are in turn less ethnocentric than those who did not complete high school."

Low SES The role of the socioeconomic status of the childhood environment is described as follows by Adorno et al. (1950):

[1] Ethnocentrism is by construction in Adorno et al. (1950), a concept related to authoritarianism. Ethnocentrism refers to ingroup-outgroup views of the individual.

> "Quite often, the parents of the ethnocentric subject seem to be **socially marginal**. The less they were able to accept their marginality, the more urgent must have been the wish to belong to the privileged groups. The feelings of marginality involved do not seem to be related to the gross economic conditions of the families in question but rather to those more subtle factors which determine the relationship between social aspiration and effective social status. The **influence of the parents must be considered at least a contributing factor to the tendency, observed in the ethnocentric child, to be more concerned with status values than are low-scoring subjects**. He expects – and gives – social approval on the basis of external moral values including cleanliness, politeness, and the like." (Adorno et al. 1950, 483).

Furthermore, if there is a gap between the actual status and the aspired status, Adorno et al. (1950, 759-760) assume that this contributes to higher authoritarianism scores.

Gender The empirical results of Adorno et al. (1950, 260-261) hint that there is a sizeable gender difference in authoritarianism between men and women, with men having higher authoritarianism scores than women.

1.4 Data

We use data from the briq Family Panel by Falk and Kosse (2021), which tracks the development of preferences and attitudes of children from age six onward. The briq Family Panel is part of the German Socio-Economic Panel – Innovation Sample (SOEP-IS). In addition to the children, the parents, mainly the mothers as the main caregivers, and other household members are regularly sampled. The panel was established in 2011. All of the children in the sample are born between 09/2002 and 08/2004 and were at the time of recruitment either second or third graders in the German cities of Bonn and Cologne. The survey is conducted annually and takes place in the home of the child.

The design structure of the panel leads to a low attrition rate, with a response rate of 95-96% between the different waves that we focus on in this study. The data set covers a wide array of data on the development of children, now adolescents, as well as other household members, such as parents, and a multitude of household characteristics. Children from low socioeconomic status families, as well as from high socioeconomic status families were sampled. Being from a low socioeconomic status family is defined as either having a low income (where the equivalence income of the household is lower than €1,065, that is the 30% quantile of the German income distribution at the recruitment period), or having parents with a comparatively low level of educational attainment (neither mother nor father have a school-leaving degree qualifying for university studies), or being a single-parent household. A household is classified as a single-parent household if the parent does not live together with a partner. At least one of the criteria must be met to be classified as a low SES household. If none of the criteria fits a household, it is classified as a high SES household.

In our study we focus on mothers, who are also the main caregiver of the child, since we assume them to have the highest impact on the authoritarianism of the adolescents. Fathers, who are the main caregiver, constitute approximately 1.5% of the sample and are omitted from our analysis to exclude potential heterogeneity caused by gender. Stratification of the sample was inter alia based on socioeconomic status, and hence being a single-parent household makes a household more likely to be sampled. Furthermore, the vast majority of single-parent households in our sample are mother-led ($\sim$ 98.5%). An analysis of the (heterogeneous) transmission of fathers and father-like figures in the household of the adolescent is provided in Appendix section A.4.

Our data set is well suited for the analysis of authoritarianism and the hypotheses of Adorno et al. (1950), since it covers a wide range of variables, especially on the relationship between parents and children. The data set contains sufficient information for all hypothesized determinants of authoritarianism, following Adorno et al. (1950).[2] Furthermore, what sets our data apart from other recent studies is the German-speaking context.

[2]The data set has been used in previous studies, such as Kosse et al. (2020) and Falk et al. (2021).

Most previous authoritarianism research was conducted in North America, the UK, Belgium, and New Zealand (Sibley and Duckitt 2008, Perry, Sibley, and Duckitt 2013, Onraet et al. 2015). Especially, since the authoritarianism concept was developed with German supporters of the Nazi regime in mind, it is natural to investigate this in the German context.

For our independent variables, we use the following constructs:

Cognitive Ability We assess the cognitive ability of mothers and children in several ways. The IQ of the children in our sample is measured through a combination of data on crystallized and fluid intelligence. Crystallized IQ relates to previously acquired knowledge (for instance, vocabulary). Fluid IQ, on the other hand, relates to the ability to logically adapt to new situations and is expressed in problem-solving competencies in new environments and contexts. Crystallized IQ is elicited via the German-language Peabody Picture Vocabulary Test Revised. Fluid IQ is elicited via the matrices test of the German-language Wechsler IQ test for children, which is the Hamburg-Wechsler-Intelligenztest für Kinder (HAWIK IV). The IQ of the mothers was assessed using a short version of the Standard Progressive Matrices Plus test (see also Falk et al. (2021)). Furthermore, we look at the dummy variable for low levels of educational attainment, which was used in the stratification of the sample. In addition, we look at the educational attainment of mothers in years.

Parenting Behavior To analyze the potential implications of parenting behavior on the transmission of authoritarianism, we look at the specific parenting style, which is in our context a positive (warm) parenting style and the time parents spent with their children in highly interactive situations (to reflect time investment of parents).

The positive parenting style that we use is constructed through multiple items in the questionnaires based on the *Parenting Questionnaire* by Thönnissen et al. (2015). It consists of the dimensions parental warmth ("I show my child with words and gestures that I like him/her." & "I praise my child."), as well as psychological and behavioral control ("If my

child does something against my will, I punish him/her.", "I make it clear to my child that he/she is not to break the rules or question my decisions.", "I think my child is ungrateful when he/she does not obey me.", & "I do not talk to my child for a while when he/she did something wrong."), and monitoring ("When my child goes out, I know exactly where he/she is." & "When my child goes out, I ask what he/she did and experienced.").[3] Since parenting style is a latent construct, we use a factor analysis to get a tangible measure (see also section A.1 in the Appendix).

For the parental time investment, we look at the share of afternoon activities mothers spend with their children, which have a high level of social interaction, such as "having a conversation", "having a snack together", "playing board or card games", "playing music together or going to music lessons" (see also section A.2 in the Appendix). The items are also taken from Thönnissen et al. (2015). As mothers are differently endowed with free time, due to socioeconomic status or having multiple children, we use the share of available time the mothers spend with their child. The parenting behavior items were elicited in the second wave of the panel, in which the children were between 9 and 11 years old.

Parenting Goals Related to the parenting styles, we are looking at parenting goals. Parenting goals and parenting styles are concepts that are strongly interrelated. Doepke and Zilibotti (2017) for instance, use parenting goals, i.e., qualities parents desire to see in the child as a proxy for parenting style. We elicit parenting goals by asking mothers a wide variety of items on what values, character traits, and skills they want to foster in their children via their parenting. The items are from Thönnissen et al. (2015). The mothers were asked to state their parenting goals early on in the panel (when the adolescents were between 12 and 14 years old). We relate this to the authoritarianism scores of the adolescent child 3-4 years later (average of two survey waves). In the selection of parenting goals, we focus on parenting goals that relate to the authoritarianism concept of Adorno et al. (1950) and to the parenting goals mentioned there. We especially look at parenting goals

[3]Some of the items are also used in Kaiser et al. (2017), Falk et al. (2021), Bašić et al. (2021), Zumbuehl, Dohmen, and Pfann (2021), Richter, Bondü, and Trommsdorff (2022).

that look at the behavior of the child in groups and in social interactions, self-control, and parental obedience.

We are using six different parenting goals. The parenting goal *Fit well in Groups* is measured using the item "That the child fits well in groups". The parenting goal *Order and Cleanliness* is measured using the item "That the child is orderly and clean". The parenting goal *Obey Parents* is measured using the item "That the child obeys his/her parents". The parenting goal *Self-Control* is measured using the item "That the child has self-control". The parenting goal *Normal Girl/Boy* is measured using the item "That the child behaves like a normal girl/normal boy". Following Adorno et al. (1950), those five parenting goals should relate positively to the conventionalism and submission dimensions of the authoritarianism concept. And the sixth parenting goal *Interest in How and Why* is measured by using the item "That the child is interested in how and why certain things happen", which is assumed to negatively relate to the authoritarianism concept. For all items, mothers had the option to answer on a 5-point scale from "not important", "rather unimportant", "neither nor", "rather important" to "very important", regarding how important they consider parenting to foster the specific parenting goals. Additionally, a "No Answer" option was included.

1.5 Results

1.5.1 Gender

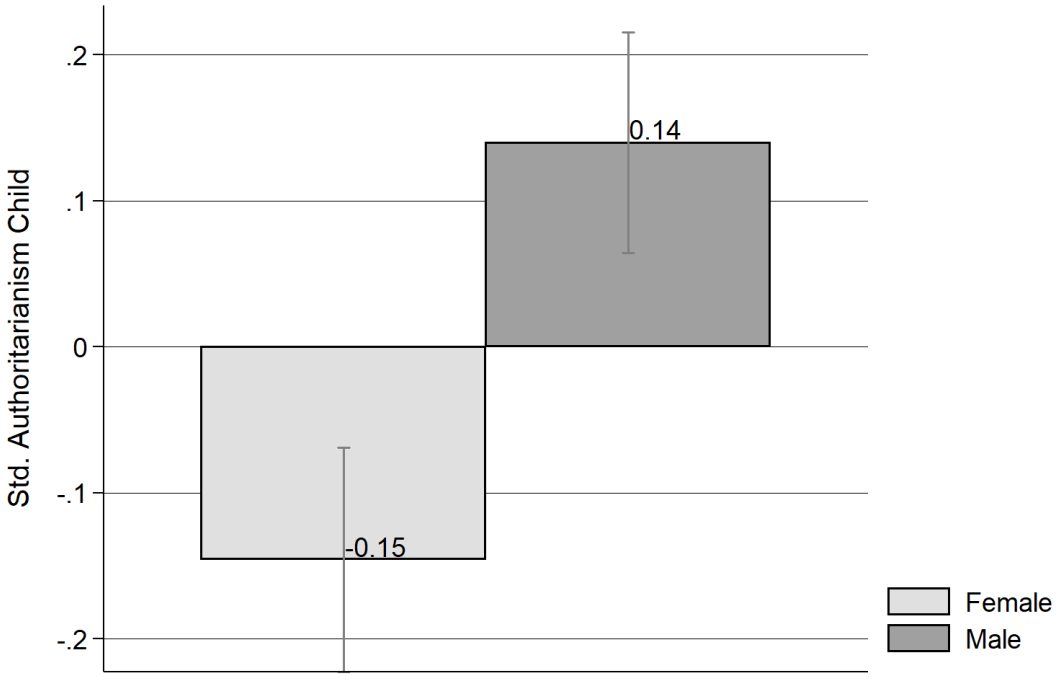


Figure 1.1: Authoritarianism Gender Gap

Gender gap in authoritarianism scores of the children in our sample. There is a significant difference between girls and boys, which is around 29% of a standard deviation ($p < 0.01$). The scale on the y-axis indicates z-scores of the average authoritarianism score of the children. Authoritarianism is the average of two consecutive waves. Sample size is 339 children, with 166 girls and 173 boys. Mean of the girls is -0.146 and the mean of the boys is 0.14. Error bars show standard errors of the means.

We find a sizeable gender gap in authoritarianism, with male adolescents displaying significantly higher levels of authoritarianism than female adolescents. This is in line with the literature (for example, Rippl and Boehnke (1995), Duriez and Soenens (2009)). Figure 1.1 shows that the gender gap in authoritarianism is significant and around 29% of a standard deviation ($p < 0.01$).

1.5.2 Intergenerational Transmission

The intergenerational transmission of attitudes, social, and economic preferences is well documented (Dohmen et al. 2012, Kosse and Pfeiffer 2013, Alan et al. 2017, Zumbuehl, Dohmen, and Pfann 2021), and we also find a stable and sizeable intergenerational transmission of authoritarian attitudes from mothers to their children.

The results in Table 1.3 show a significant relationship between maternal authoritarianism and child authoritarianism. We find no evidence that the transmission is heterogeneous by gender of the child.

In a sample of American college students and their parents, Peterson, Smirles, and Wentworth (1997) find a correlation coefficient of 0.48 (Pearson's r) for authoritarianism between parents and their children. Dhont and Hiel (2012) find a correlation of 0.54 between parental authoritarianism (mainly mothers) and adolescents' authoritarianism in a sample of students in secondary schools in Belgium. Duriez and Soenens (2009) find a correlation of 0.41 between children and mothers and 0.28 between children and their fathers in a sample of Belgian high school students. Meeusen and Dhont (2015) find a mother-child correlation of 0.31 (and father-child correlation of 0.26) in a sample of Belgian adolescents and their parents. The intergenerational correlation we find for mother-child dyads with a Pearson's r of 0.32 ($p < 0.01$), is comparable to those results.[4]

Overall, we find evidence for an intergenerational transmission of authoritarianism, which is sizeable and comparable to previous empirical findings. Our results are in line with the predictions of Adorno et al. (1950). In the next step, apart from intergenerational transmission, which simply shows the *if* of transmission, we want to delve into the *how* of transmission.

1.5.3 Parenting Style

The intergenerational transmission of authoritarianism, as well as the transmission of most preferences and attitudes, is not only driven by nature but also by parental behavior.

[4]In addition, in Table A.4 in the Appendix, we display the intergenerational correlation of the three subdimensions of authoritarianism.

Table 1.3: Intergenerational Transmission

	Authoritarianism Child		
	(I)	(II)	(III)
Authoritarianism Mother	0.319***	0.319***	0.351***
	(0.06)	(0.06)	(0.08)
Male		0.316***	0.316***
		(0.10)	(0.10)
Male × Authoritarianism Mother			-0.056
			(0.11)
Constant	-0.001	-0.163**	-0.163**
	(0.05)	(0.07)	(0.07)
N	332	332	332

Notes: Dependent variable is authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. *Authoritarianism Mother* is the average maternal authoritarianism score of two consecutive waves. Authoritarianism scores of children and mothers are each z-score standardized. The variable *Male* is a dummy for being a male child. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

The estimation in column I in Table 1.4 shows a non-significant relationship between the share of high activities a mother undertakes with her child and the child's authoritarianism. The same holds for the positive parenting style variable in column II. Hence, for the way parents socialize their children, i.e., our measure of positive parenting style and the share of high activities, we do not find significant results for parenting style and authoritarianism.[5]

[5]In Table A.5 in the Appendix, we display the relationship between the parenting style employed by mothers and the share of high activities mothers spend with their child, and the three subdimensions of authoritarianism.

Table 1.4: Parenting Styles

	Authoritarianism Child	
	(I)	(II)
High Activities	0.067	
	(0.06)	
Positive Parenting Style		0.018
		(0.06)
Constant	-0.004	-0.031
	(0.05)	(0.06)
N	337	314

Notes: Dependent variable is authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. *High Activities* is the share of highly interactive activities mothers spend during the interaction with the child. *Positive Parenting Style* refers to a construct consisting of several items on child rearing behavior of mothers as explained in section 1.4. Authoritarianism score of the child, high activities and positive parenting style are each z-score standardized. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses. For further description of positive parenting style and high activities see section A.1 and section A.2 in the Appendix.

1.5.4 Parenting Goals

Parenting goals and parenting styles are related concepts, and parenting goals constitute another measure of parenting style (Doepke and Zilibotti 2017). If we look at the relation between the goals mothers try to convey to their children and authoritarianism of the child, we find significant results. Table 1.5 shows the relationship between the parental goals expressed by the mother and the authoritarianism score of the adolescent child. Parenting goals that relate to the child fitting in well with groups or in society, by adhering to rules (order and cleanliness, normal girl/boy) and to show obedience to parents, as well as self-control, are visibly related to the concept of authoritarianism. The results are generally in line with findings such as Duriez, Soenens, and Vansteenkiste (2007, 2008), who find that parenting goals are crucial in the transmission of RWA. The results hint to parenting goals being a mediating determinant in the transmission of authoritarianism.[6]

[6]Table A.6, Table A.7, and Table A.8 in the Appendix, display the relationship between parenting goals and the three subdimensions of authoritarianism.

Table 1.5: Parenting Goals

	Authoritarianism Child					
	(I)	(II)	(III)	(IV)	(V)	(VI)
Fit well in Groups	0.140					
	(0.08)					
Order and Cleanliness		0.296***				
		(0.07)				
Obey Parents			0.386***			
			(0.07)			
Self-Control				0.214**		
				(0.09)		
Normal Girl/Boy					0.109**	
					(0.04)	
Interest in How and Why						-0.153
						(0.10)
Constant	-0.594*	-1.183***	-1.527***	-0.930**	-0.426**	0.683
	(0.36)	(0.29)	(0.27)	(0.41)	(0.18)	(0.43)
N	321	321	321	321	320	321

Notes: Dependent variable is authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. Authoritarianism is z-score standardized. The parenting goals are described in full in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

1.5.5 Cognitive Ability and Educational Attainment

In this section, we analyze the relationship between cognitive ability and authoritarian attitudes, both among children and mothers.

The graphical analysis in the binned scatter plot in Figure 1.2 shows that there is a strong and negative relationship between cognitive ability, in terms of IQ, and authoritarianism of adolescents in our sample. Furthermore, the estimation results in column I in Table 1.6 show that an increase of one standard deviation of the IQ score is associated with a -32.7% of a standard deviation ($p < 0.01$) decrease in authoritarianism. Column II shows that maternal IQ is also a significant predictor of adolescent authoritarianism, hinting in the same direction as in column I, with a higher maternal IQ correlated with a lower authoritarianism of the child. The same pattern holds if we use the years of formal education of the mother as a proxy for cognitive ability in column III. A one-year increase

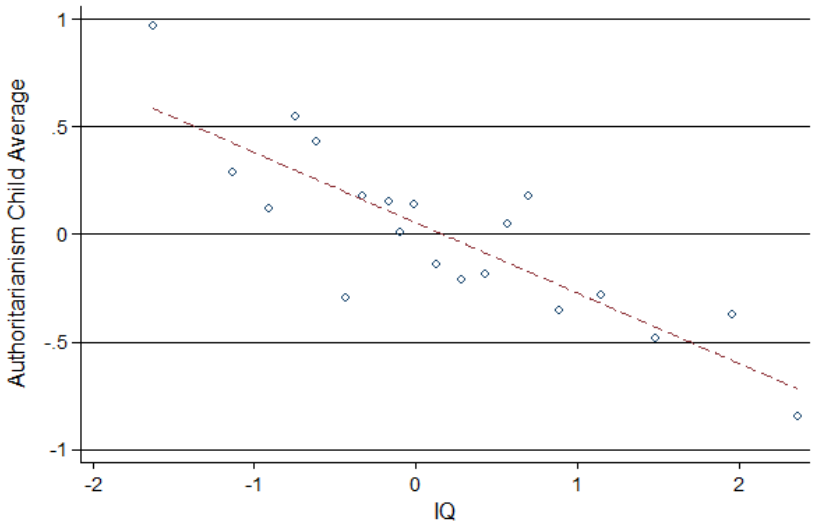


Figure 1.2: Cognitive Ability & Authoritarianism

Correlation of cognitive ability of the child and authoritarianism score of the child as shown by a binned scatter plot with 20 bins where the red line indicates the fitted value. Cognitive ability is measured via a combination of crystallized and fluid IQ as described in section 1.4. The IQ measure of the child is z-score standardized. The x-axis displays the z-scores of children's IQ. The y-axis indicates the z-score average authoritarianism score of the children in our sample. Authoritarianism is the average across two consecutive waves. Pearson's r correlation coefficient is -0.33 ($p < 0.01$). The number of observations is 339.

in formal schooling of the mother leads to a -7.2% standard deviation ($p < 0.01$) decrease in adolescent authoritarianism. The estimation results in column IV show that a child in a low socioeconomic status family, where none of the parents have a high educational attainment level, authoritarianism is, everything else equal, 42.3% of a standard deviation ($p < 0.01$) higher than among children of parents with high educational attainment. Our findings are consistent with previous findings (Heaven, Ciarrochi, and Leeson 2011, Hodson and Busseri 2012, Choma et al. 2014, Onraet et al. 2015), showing that different measures of cognitive ability are negatively correlated with right-wing authoritarianism. Adorno et al. (1950, 284) find a correlation coefficient of -0.48 between authoritarianism and IQ among a sample of US veterans. Hence, we conclude that cognitive ability is indeed a significant predictor of authoritarianism as hypothesized by Adorno et al. (1950).[7]

[7]In Table A.9 the Appendix, we also display the relationship between the child's IQ and the three subdimensions of the authoritarianism concept.

Table 1.6: Cognitive Ability

	Authoritarianism Child			
	(I)	(II)	(III)	(IV)
IQ Score Child	-0.327***			
	(0.05)			
IQ Mother		-0.146***		
		(0.05)		
Education Years Mother			-0.072***	
			(0.02)	
Low Education (LSES)				0.423***
				(0.11)
Constant	0.055	0.009	0.996***	-0.142**
	(0.05)	(0.05)	(0.23)	(0.07)
N	339	339	339	339

Notes: Dependent variable is authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. Authoritarianism is z-score standardized. *IQ Score Child* is the z-score standardized IQ score of the child consisting of crystallized and fluid IQ as described in section 1.4. *IQ Mother* is maternal IQ, which is z-score standardized. *Education Years Mother* is the educational attainment of mothers in years. *Low Education (LSES)* is a dummy variable indicating that neither the mother nor the father of the child have a school degree qualifying for university studies. The measures of cognitive ability are described in full in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

1.5.6 Socioeconomic Status

We find that socioeconomic status is a key determinant of authoritarianism, with adolescents from low SES families displaying significantly higher levels than their high SES counterparts. The results in column I in Table 1.7 show that there is a significant socioeconomic status gap for children, with high SES children displaying lower levels of authoritarianism. Furthermore, column III shows that the SES gap for mothers in our sample is similar in size.[8] If socioeconomic status is split in its three components, we find that for children (column II) the authoritarianism score appears to be driven by the educational attainment of the parents. For mothers (column IV), we find that educational attainment is crucial again, but the coefficient of single-parent status is significant and negative and that being relatively poor is positively and significantly related to maternal authoritarianism.

[8]In addition, in Table A.10 in the Appendix, we display the relationship between high socioeconomic status and gender for the three subdimensions of authoritarianism.

Table 1.7: Socioeconomic Status Gaps

	Authoritarianism Child		Authoritarianism Mother	
	(I)	(II)	(III)	(IV)
High SES	-0.320***		-0.393***	
	(0.12)		(0.12)	
Single Parent (LSES)		0.026		-0.313***
		(0.11)		(0.11)
Poor (LSES)		0.015		0.228**
		(0.11)		(0.11)
Low Education (LSES)		0.423***		0.631***
		(0.11)		(0.11)
Constant	0.089	-0.156*	0.110*	-0.180**
	(0.06)	(0.09)	(0.06)	(0.08)
N	339	339	350	350

Notes: Dependent variable is the authoritarianism of the child in column (I) and (II), which is the average authoritarianism score across two consecutive waves. In column (III) and (IV) the dependent variable is the authoritarianism score of mothers, which is the average authoritarianism score of two consecutive waves. All authoritarianism measures are z-score standardized. *High SES* is a dummy, which is one if the child is from a high socioeconomic status household and zero otherwise. *Single Parent (LSES)* is a dummy variable, which is one if the child is from a single parent household and zero otherwise, which indicates low socioeconomic status. *Poor (LSES)* is a dummy variable, which is one if the child is from a low income household and zero otherwise, which indicates low socioeconomic status. *Low Education (LSES)* is a dummy variable, which is one if neither of the child's parents have a high educational attainment and zero otherwise, which indicates low socioeconomic status. Further description of the variables is provided in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

1.5.7 Joint Effects

Adorno et al. (1950) focus on bivariate relationships in their analysis of authoritarianism, mainly in the form of correlations and cross tabulations. So far we have also focused on bivariate relationships to closely follow the approach of Adorno et al. (1950). However, disentangling attitudes such as authoritarianism and attitudes towards parenting behavior, respectively, individual characteristics such as maternal cognitive ability, is challenging due to the complex interplay between the different dimensions. It is intuitive in the presence of intergenerational correlation of authoritarianism, as visible in Table 1.3, to look at potential ways of how the transmission might be facilitated. Previously, we have taken maternal parenting attitudes, parenting behavior, and cognitive ability as independent of maternal authoritarianism. In Table A.12 and Table A.13 in the Appendix we look

at the previous findings while simultaneously controlling for maternal authoritarianism. As expected, we find that for an arguably exogenous variable such as the gender of the child, there is only a minor change in the size and significance of the coefficient when controlling for maternal authoritarianism. The same holds for the IQ of the child. For the coefficients of our measures of maternal cognitive ability, we see a drop in magnitude and significance, which is as we would expect given that maternal cognitive ability likely also affects the authoritarianism scores of the mothers and both dimensions might be related. For high activities and parenting style, the coefficients remain low and insignificant. Regarding parenting goals, the goals "Order and Cleanliness" and "Obey Parents" remain significant but decrease in magnitude. It is reassuring to see that the relations hold, in line with our expectations, in a joint analysis with maternal authoritarianism, though some are lower in magnitude and partially also in significance. However, this has to be interpreted with caution as the results do not necessarily imply any direction of a potential mediator effect of the coefficients. As we are able to see in Table 1.7, there is also a significant correlation between the socioeconomic status of the mother, including low educational attainment, and maternal authoritarianism. Even though this is not a core part of our study, it is interesting nevertheless to briefly explore those joint effects.

1.5.8 Overall Findings

After carefully assessing the hypotheses put forward by Adorno et al. (1950), regarding childhood determinants of authoritarianism, we find evidence supporting most of them. We find significant intergenerational transmission; further, we find that maternal parenting goals, such as cleanliness or obeying parents, are significant predictors of authoritarianism. Cognitive ability is also a significant determinant of authoritarianism, with a lower IQ correlated with higher authoritarianism scores. Our results here are of the same magnitude as Adorno et al. (1950). We also find evidence for the role of socioeconomic status and gender. However, we do not find a significant relationship between parenting style and authoritarianism. There are some potential reasons why that might be. In our sample,

Table 1.8: Assessment of Hypotheses

No.	Hypothesis	Finding
1.	Males display higher levels of authoritarianism than females.	✓
2.	Authoritarianism is transmitted from parents onto their offspring.	✓
3.	The parenting style employed by the parents forms authoritarian attitudes in the child, with a warm/caring parenting style correlating with lower authoritarianism.	X
4.	Parenting goals are crucial determinants of authoritarianism.	✓
5.	Cognitive ability of parents and children is negatively correlated with authoritarianism.	✓
6.	Low socioeconomic status of the household is positively correlated with authoritarianism.	✓

we focus on mothers, who are also the main caregiver, who might deviate in their parenting style from fathers. Yet, at the same time, we find a high intra-household correlation of authoritarianism among mothers and fathers (see section A.5 in the Appendix). Our analysis of the interrelatedness of parenting style and socioeconomic status in section A.3 in the Appendix, does not yield any significant results.

For an analysis of the subdimensions of authoritarianism and socioeconomic status and gender, see section A.6 in the Appendix.

1.6 Conclusion

With this project, we contribute to the literature, by giving a renewed test of the hypotheses stated in *The Authoritarian Personality*, which center on the parent-child relationship (Adorno et al. 1950, 972). We find that the hypotheses and findings of Adorno et al. (1950) still hold, further underlining the importance of their seminal work.

We find a significant intergenerational transmission of authoritarianism, which is also reflected in parenting goals mothers set out in the parenting of their child, but we find no significant results for the parenting style mothers employ or for maternal time investment. Cognitive ability is negatively correlated with adolescent authoritarianism. Further, low socioeconomic status is positively correlated with authoritarianism and male adolescents display significantly higher authoritarianism scores than female adolescents.

After identifying contributing factors of authoritarianism, the question arises how to mitigate authoritarian attitudes. If we deem authoritarianism as something undesirable, it is obvious that any intervention aiming to mitigate authoritarian attitudes among low SES individuals, and especially low SES males, has to take place prior or during the time of the impressionable years, which is adolescence. Also in favor of early childhood interventions, Adorno et al. (1950, 975), argue that "if the proper influences were brought to bear earlier in the individual's life, and since the earlier the influence the more profound it will be, attention becomes focused upon child training.", while at the same time even more important than structured programs is that "children be genuinely loved and treated as individual humans."

However, in this context, we also have to refer to literature that finds that authoritarianism at the individual level can serve as a psychological buffering function. For instance Womick et al. (2019) find that RWA is positively correlated with meaning in life, that is feeling that an individual's life is meaningful and has purpose, which is seen as essential in avoiding an existential crisis and hence mental distress. RWA can serve as a means to reduce complexity and creates a rather black and white world view with a clear place for the individual as a follower of authoritarian leaders. Of course, the implications of

those attitudes are in sharp contrast to the social unity at the macro level. Hiel and Clercq (2009) find that mental distress is facilitated by authoritarianism. Yet, with that in mind, the significant SES gap we find becomes ever more intuitive, since low SES individuals are more likely to experience severe mental or economic distress. Dhont, Roets, and Hiel (2013) find that authoritarianism is significantly correlated with an individual's level of *need for closure*, which is an individual's desire for ambiguity aversion and for clear answers and policies to follow in order to live a structured and predictable life. *Need for closure* is a desire for cognitive closure and is negatively correlated with thinking and cognition (Dhont, Roets, and Hiel 2013, 780). Hence, here we see why cognitive ability in our sample is negatively correlated with authoritarianism scores for both adolescents and mothers. Furthermore, Dhont, Roets, and Hiel (2013) also find that parental *need for closure* has a significant correlation with child's authoritarianism.[9]

Taking this into account further complicates any policy recommendations. Authoritarianism at the macro level is undesirable, due to its discriminatory and hence inefficient implications. Yet, at the individual level, authoritarianism might be a logical response to distress and complexity. Hence, policies aiming to decrease authoritarianism could start by mitigating the distress caused by an increasingly complex society for individuals with low cognitive ability, respectively, dampen the distress caused by socioeconomic hardship. Adorno et al. (1950, 973) come to a similar conclusion and state that "countermeasures should take into account the whole structure of the prejudiced outlook. The major emphasis should be placed, it seems, not upon discrimination against particular minority groups, but upon such phenomena as stereotypy, emotional coldness, identification with power, and general destructiveness."

[9]The role of ambiguity aversion was already mentioned in Adorno et al. (1950, 461-463).

Chapter 2

The Formation of Political Attitudes: Causal Evidence From a Childhood Intervention

2.1 Introduction

Individuals with low socioeconomic status (SES) are less likely to participate politically. They are less likely to vote, to be members of parties, and to participate in demonstrations. This pattern occurs in different countries, with different political systems and across time.

With a large disenfranchisement of citizens with the political system in several Western democracies, this socioeconomic participation gap can undermine political stability. One prerequisite of political participation is holding and expressing political attitudes. However, the same socioeconomic status gaps are observable for the expression of political attitudes in surveys across different countries. Political attitudes are often found to be formed in adolescence and tend to remain stable throughout life (Prior 2010, Rekker et al. 2018), yet at the same time those gaps are already visible among children and adolescents (van Deth, Abendschön, and Vollmar 2011, Holbein and Hillygus 2020). These differences in the likelihood of stating preferences and attitudes in surveys are especially

pronounced for political questions. If policies are implemented based on survey data in which item nonresponses, as for instance, expressed by choosing a *Don't Know* (DK) option, are not equally distributed across different socioeconomic statuses, those surveys suffer selection bias (Rapoport 1979). Furthermore, the differences are a potential explanation of disparities in political participation, but so far the expression of political attitudes as a prerequisite of political participation has not yet received sufficient attention in the literature.

This could also be due to the fact that little research has been conducted on how the likelihood of expressing an opinion can be influenced. We address this by analyzing whether a childhood mentoring intervention in a randomized controlled trial is capable of closing socioeconomic status gaps in stating political attitudes and preferences in adolescence. The mentoring program called *Balu & Du* that we are investigating was not specifically designed to stimulate political attitude expression or political participation, rather it is aimed at informal learning, fostering noncognitive skills, and enriching the environment of the child by providing an additional attachment figure. Here, we relate to the research of Sondheimer and Green (2010), Holbein (2017), and Holbein et al. (2022) who show that childhood interventions targeting disadvantaged children can cause political participation in adulthood, even though political participation was not the direct aim of the interventions, but rather fostering noncognitive skills. Recently, noncognitive skills have received increased attention as potential determinants of political participation (Kam and Palmer 2008, Holbein et al. 2018, Holbein and Hillygus 2020, Carlos 2021).

For our outcome variables, we use item nonresponses, such as *Don't Know* and *No Answer* (NA) on political items, as a measure of not stating attitudes. This measure has been used in previous research on a variety of political survey items (Gilljam and Granberg 1993, Berinsky 2002a, Wardle, Robb, and Johnson 2002, Brooks 2004, Berinsky and Margolis 2011, Piekut 2019, Kleinberg and Fordham 2017). Our dependent variables are the item nonresponse on left-right self-placement, on the intention to vote for a specific party, and on three different issues on redistribution, migration, and climate change.

First, to demonstrate that the SES gaps in political participation and attitude expression

are also visible across different data sets and that they are indeed a cross-cultural issue, we show the gaps in the German General Social Survey for an adult population of Germany and in the European Social Survey for an even larger multicountry sample.

Adolescence is considered the crucial stage of life in which political attitudes and preferences are formed that remain stable in adulthood (van Deth, Abendschön, and Vollmar 2011, Prior 2010, Rekker et al. 2018). With a mentoring program aimed at children from low socioeconomic status families, we are able to show that the SES gaps in item nonresponses to political survey items can be mitigated.

To understand how the mentoring treatment affects the mitigation of SES disparities, we decompose the treatment effect and look at potential channels. We analyze the role of school tracking and prosociality and find that the treatment effect is largely independent of higher-school track attendance and prosociality of the adolescents. To rule out that the individuals in our sample are using item nonresponses strategically to conceal socially undesirable attitudes and to rule out that we actually change attitudes and not the likelihood of expressing attitudes, we use dictator games where the recipient is a charitable organization. We deem the dictator game, as an experimental paradigm, suitable for this since it provides no option to provide an item nonresponse and, at the same time, it is incentivized so that refusing to participate in the dictator games results in foregoing financial gains. The dictator game requires an active choice by the individuals, and thus reveals something about the underlying political attitudes. Based on previous research, we know that political attitudes and behavior in dictator games are related (Fowler 2006, Dawes, Loewen, and Fowler 2011, Fisman, Jakiela, and Kariv 2017, Kerschbamer and Müller 2020). On average, we do not find significant differences in giving to a charitable organization between individuals in the item nonresponse groups and individuals in the groups who provided a response. To the best of our knowledge, we are the first to use the dictator game in combination with item nonresponses to analyze whether individuals do in fact hold political attitudes even though they provided an item nonresponse.

The remainder of this chapter is organized as follows: Section 2.2 discusses the literature and possible reasons for providing item nonresponses in surveys. Section 2.3

shows that the socioeconomic status gaps in item nonresponses to political questions can be found in different data sets with different countries and samples. Section 2.4 outlines the data we are using for our analysis. Section 2.5 shows our empirical findings of treatment on the expression of political attitudes and provides a decomposition of the channels in which treatment affects our dependent variables. Section 2.6 concludes.

2.2 Item Nonresponses and Political Attitudes

Failure to provide valuable responses in surveys by resorting to item nonresponses could result in a nonresponse bias if nonresponse is non-random and contingent on demographic characteristics, such as socioeconomic status. Furthermore, if item nonresponses are treated as missing, this could lead to selection bias in surveys. This can translate into representational deficits in policy making, if policies are chosen based on surveys with large shares of item nonresponses and if these shares differ by varying characteristics of the respondents, for example, socioeconomic status, education or ethnic background. Although the no-opinion option is often provided to reduce pressure on the individual, who does not have a "true" attitude, to give a response, this could simultaneously result in an excessive usage of that option as it is perceived as the easiest one (Krosnick et al. 2002).

There are multiple reasons for respondents to give an item nonresponse. Some of those potential reasons are more detrimental to research than others, since it is difficult to rule them out. The difficulties of the black box of *Don't Know* or *No Answer* responses have been addressed decades ago, with several studies finding that such responses are not always random, but rather that the sociodemographic characteristics of the respondents might be crucial (Francis and Busch 1975, Bishop et al. 1980). The notion that *DK* responses only reflect that the respondents never really have an opinion is considered at least partially outdated (Berinsky and Margolis 2011).

In political surveys, SES gaps in *DK* responses are especially pronounced and are found in different countries and different settings. Such SES gaps in *DK* responses, with low SES individuals choosing this option significantly more often than high SES individ-

uals, are, for example, found in Berinsky and Margolis (2011) on items on health care legislation. Furthermore, Berinsky (2002b) finds that there are SES gaps in *DK* responses on issues related to redistribution and other political issues. Survey items on social policy and redistribution, which affect low SES individuals to a greater extent than high SES individuals, are more likely to invoke *DK* responses in the low SES than in the high SES individuals. This can lead to a misrepresentation of the views and interests of low SES individuals on issues for which they are seen as natural proponents (Berinsky 2002b).

Other research looked, for example, at the role of *Don't Know* responses in surveys on charitable giving (Brooks 2004) or nuclear power (Gilljam and Granberg 1993). Piekut (2019) analyzes *DK* responses in the European Social Survey on immigration issues and finds that nonresponses are contingent on the individual characteristics of the respondents and hence nonresponses are not random, which might lead to biased survey results.[1] The response bias has also been documented by Kleinberg and Fordham (2017) who looked at attitudes on foreign policy and also ran an experiment where respondents in the treatment group had the option to choose *Don't Know/No Opinion* and the control did not. The results showed that leaving out the *DK* option skewed the survey results by forcing respondents to choose an option, while they would have preferred a *DK* option.[2] Regarding adolescents, Wardle, Robb, and Johnson (2002) find that low SES adolescents are more likely to choose the *DK* response if asked about parental educational attainment and occupation.

The motivation of item nonresponses is unclear and several reasons could lead to it. For instance, an item nonresponse can mean that the individual is indecisive and, in fact, does not know her decision or is indifferent between the offered options (Urquizu-Sancho 2006, Berinsky and Margolis 2011). Other reasons that could play a role in giving item non-

[1]Regarding political knowledge, extensive literature exists on the *DK* responses to (factual) political knowledge items (Mondak 1999, Sturgis, Allum, and Smith 2008, Luskin and Bullock 2011, Jessee 2017). Political knowledge is a different outcome from political attitudes, but a key finding remains true for both: treating *DK* as having no knowledge in the political knowledge literature (equivalent to providing a wrong answer on a factual political question) and treating *DK* attitudes responses as having no attitude, can cause survey bias if the *DK* response is different from providing a wrong answer or having no attitude. Other research, such as (Bucher-Koenen et al. 2021) finds that *DK* responses among women on factual financial knowledge are partly due to lower confidence in one's knowledge.

[2]There also exists a literature strand on *DK* and other item nonresponses as a tool of self-censorship in authoritarian systems. See, for instance, Shen and Truex (2020) and Naylor and O'loughlin (2021).

responses are, for instance, if the individual thinks that her opinion might be perceived socially not accepted and she fears judgement or ostracism (Noelle-Neumann 1974, Berinsky 1999, Urquizu-Sancho 2006, Piekut 2019). Knowledge of a certain issue and whether the individual considers her knowledge sufficient can drive item nonresponses and affect the communicative intent of the individual (Beatty et al. 1998). Providing responses to surveys can also be a cognitively demanding task, and *Don't Know* or *No Opinion* options are an easy and low-cost way of satisficing, especially among individuals who want to put in little effort to provide an answer or for individuals with low cognitive ability (Krosnick 1991, 1999, Krosnick et al. 2002). A question could also be phrased in a confusing or too complicated way and therefore too cognitively demanding for some individuals (Converse 1976, Shoemaker, Eichholz, and Skewes 2002). Furthermore, respondent characteristics, such as exposure to a certain issue, education, age, interest, could be crucial determinants of item nonresponses (Berinsky and Margolis 2011).

2.3 SES Participation Gaps in Representative Data Sets

Several studies have shown that individuals with low socioeconomic status, defined as either having low educational attainment or low cognitive ability or having low financial resources are more likely to provide item nonresponses (Berinsky 2002b, Laurison 2015, Yildirim and Bulut 2022). Furthermore, low SES individuals are also significantly less politically active (Brady, Verba, and Schlozman 1995, Marien, Hooghe, and Quintelier 2010, Armingeon and Schädel 2014, Schäfer, Roßteutscher, and Abendschön 2020).

To show that individuals from low SES households are more likely to resort to the *DK* response in political surveys than high SES individuals, we analyze two different data sets. Thus, we are also able to show the external validity of such results and that this finding is not exclusive to our data but rather consistently found among many surveys in different countries. We are using data from the German General Social Survey (GGSS/ALLBUS) and the European Social Survey (ESS). The GGSS was chosen to show that SES gaps in item nonresponses and political participation are visible in a large sample of the German

population. Furthermore, we are using GGSS data from 2018 to show that these SES differences were visible even before the COVID-19 pandemic. The ESS is used to look at this at an even larger multi-country sample. We are using the latest version of the ESS (elicitation period between 2020 and 2022). Both data sets were chosen because they have extensive data on household characteristics, allowing us to use a similar socioeconomic status definition, and because they include political survey items that are comparable to the items in our sample.

German General Social Survey We use data from the German General Social Survey, which is a biennial repeated cross-section of a random sample of the German population. We use data from the 2018 survey, which sampled 3,477 individuals (GESIS 2021) who were 18 years or older at the beginning of 2018.[3] Figure 2.1 shows significant socioeconomic status gaps (all $p<0.01$) in the survey responses. Socioeconomic status is defined following Kosse et al. (2020). An individual is classified as having a low socioeconomic status if the individual has either a low educational attainment (not having a school-leaving degree qualifying for university studies), or a low income (household income below the 30% quantile within the sample), or both. If none of the low SES criteria are met, the individual is classified as high SES. The upper left panel shows that 33% of high SES individuals state that they have no party identification, which is a long-term attachment to a party, while 44% of low SES individuals state that they have no party identification. This SES gap in whether individuals have a party identification is crucial, as citizens with party identification are more likely to go to the ballot (Bartels 2000, Lewis-Beck et al. 2008) and thus create a participation gap. The upper right panel shows the SES gap in political interest, where 7% of the high SES individuals state to have little or no interest in politics, while among low SES respondents the share is nearly three times that with 19%. The lower left panel displays the rate of *No Answer* in a survey item that asked respondents to state their political alignment on the conventional left-right self-placement

[3]The GGSS/ALLBUS data is weighted so that it is representative of the individual level of the whole of Germany. The unweighted sample would oversample East German individuals. For weighting, the variable *wghtpew* was used.

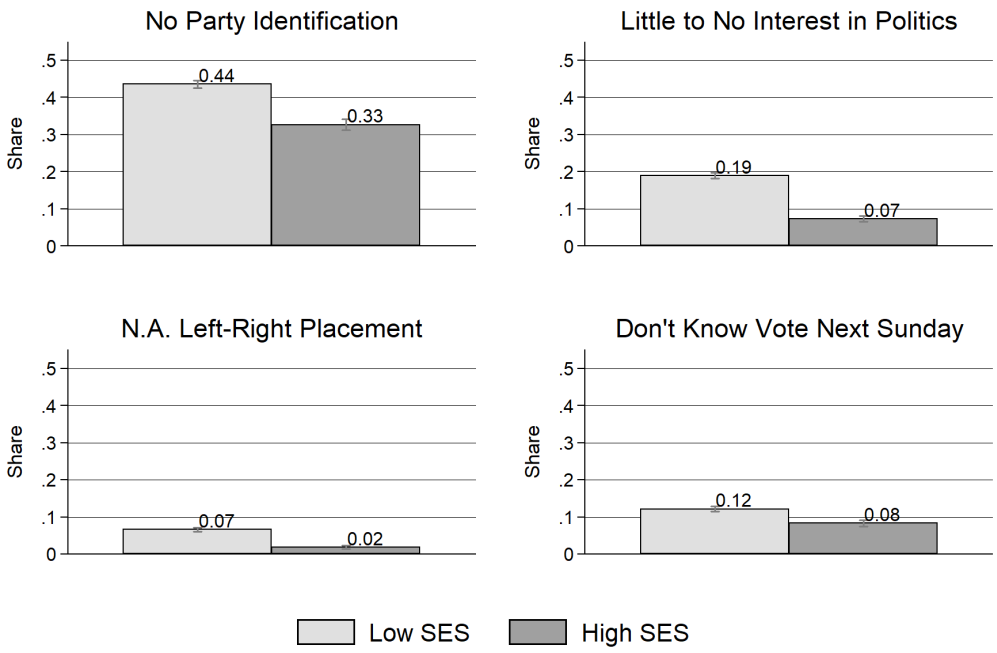


Figure 2.1: Socioeconomic Status Gaps in the German General Social Survey

Data stems from the German General Social Survey (GGSS/ALLBUS) and covers the year 2018. The number of observations is 3,477 individuals. Low socioeconomic status (LSES) classification is based on low educational attainment (not having a school-leaving degree qualifying for university studies) and low income (household income below the 30% quantile within the sample) following Kosse et al. (2020). An individual is classified as having a high socioeconomic status (HSES) if none of the previous LSES classifications apply. The "No Party Identification" panel displays the share of "No" responses among individuals on the question "Many people in Germany tend to support a particular political party over a long period of time although they may also occasionally vote for another party. What about you? Do you – in general – tend to support a particular political party?". The "Little to No Interest in Politics" panel displays the share of respondents that answered "very little" or "not at all" on the question "How interested in politics are you?". Respondents could answer with "very strongly", "strongly", "middling", "very little", and "not at all". The panel "N.A. Left-Right Placement" displays the share of respondents, who answered with "no answer" to the question "Many people use the terms 'left' and 'right' when they want to describe different political views. Here we have a scale that runs from left to right. Thinking of your political views, where would you place these on this scale?" to which they could respond on a 10-point scale from left to right, but a certain amount of respondents chose not to answer the question and stated "no answer". The panel "Don't Know Vote Next Sunday" displays the share of respondents who indicated "Don't Know" on the question "If there was a general election next Sunday, which party would you vote for?". Error bars show standard errors of the means.

scale. Again, low SES individuals are significantly more likely to provide no answer here than high SES individuals. In the lower right panel, the share of respondents who state that they do not know who they would vote for if there were an election on the next Sunday is displayed. Low SES respondents are again significantly more likely to state that they do not know compared to high SES individuals. Overall, we find that low SES individuals in the GGSS are less likely to voice political attitudes and are less likely to be interested in politics and to participate.

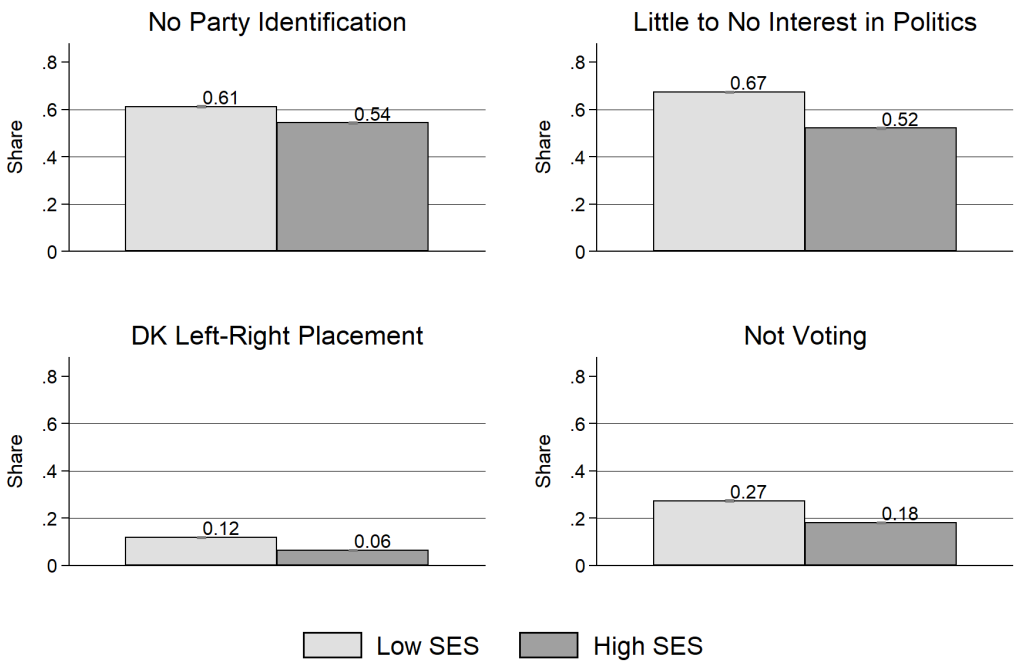


Figure 2.2: Socioeconomic Status Gaps in the European Social Survey

Data stems from the European Social Survey Wave 10 elicited between 2020-2022 (Integrated file, edition 2.0). The number of observations is 33,351 and the sample consists of respondents from Bulgaria, Croatia, Czechia, Estonia, Finland, France, Hungary, Lithuania, Slovakia, Slovenia, Switzerland, Greece, Iceland, Italy, Montenegro, North Macedonia, Netherlands, Norway, and Portugal. Low socioeconomic status (LSES) classification is based on low educational attainment (not having a school-leaving degree qualifying for university studies) and low income (household income below the 30% quantile in the respective country of the individual) following Kosse et al. (2020). The panel "No Party Identification" is the share of respondents who responded with either "No", "Don't Know", or "No Answer" on the question "Is there a particular political party you feel closer to than all the other parties?". The panel "Little to No Interest in Politics" shows the share of respondents who answered either "Not at all interested" or "Hardly interested" on the question "How interested would you say you are in politics?". The panel "DK Left-Right Placement" shows the share of respondents who answered "Don't Know" on the question "In politics people sometimes talk of "left" and "right". Where would you place yourself on this scale, where 0 means the left and 10 means the right?". The panel "Not Voting" displays the share of respondents who responded with "No" on the question "Some people don't vote nowadays for one reason or another. Did you vote in the last national election?". Error bars show standard errors of the means.

European Social Survey To show that SES gaps are not only a German phenomenon, we use the latest version of the European Social Survey ERIC (2022), which covers 33,351 individuals from 19 European countries. The ESS is a biennial repeated cross-section of a random sample of citizens in European countries. Similarly to the findings for Germany in Figure 2.1, Figure 2.2 shows significant socioeconomic gaps (all $p<0.01$) in the survey response to certain issues. The upper left panel shows that among low SES individuals, about 61% do not have a party identification, while this is the case for 54% of high SES individuals. The upper right panel shows significantly more low SES individuals respond

that they have little to no interest in politics. The lower left panel shows that the share of low SES individuals, who respond with "Don't Know" on the issue of Left-Right Self-Placement, is twice the share of high SES individuals who respond like that. The lower right panel shows that a significantly higher share of low SES than high SES individuals state that they did not vote in the last national election.[4] We find a clear pattern of SES differences in the likelihood of attitude expression and political participation.

2.4 Data

2.4.1 briq family panel

We use the briq family panel (bfp), which is an ongoing panel that tracks the development of children from as early as second grade in elementary school until they reach adulthood. An extensive description of the data set, especially of the mentoring program and the sampling procedure, is provided by Kosse et al. (2020). The panel tracks a wide variety of individual and household characteristics. It offers us the opportunity to evaluate the effect of a childhood intervention on political outcomes, such as political will formation, attitude expression, and political participation. Children born between 01.09.2002 and 31.08.2004, from low and high socioeconomic families are sampled. The intervention was a year-long mentoring program for low SES children, enriching the lives of these children. The mentoring program was conducted by the non-profit charity organization *Balu & Du* (*Baloo & You*), which offers a mentoring program for children of disadvantaged households. The program has been in existence for two decades and has implemented more than 12,000 mentoring relationships so far.

The mentors (called *Baloos*) are mainly college or university students between the ages of 18 and 30 years. The mentoring intervention took place in the German cities Bonn and Cologne, between fall 2011 and spring 2013. The one-on-one mentoring program is

[4]Since there are sizeable level differences between the countries in the sample, Table B.6 displays estimation results for the different dependent variables with country-fixed effects. The results show significant socioeconomic status gaps for all dependent variables.

designed to last at least 12 months and its aim is to provide elementary school children with a mentor, who promotes *informal learning* in which mentors encourage the acquisition of new ideas and skills in the daily life of the mentees (called *Mowglis*). The aim is to mitigate parental deficits in activating the child, such as creating a desire to learn and curiosity. *Informal learning* is understood in the context of mentoring as learning something during everyday life that happens casually (Niebuhr 2020), which also entails learning about societal contexts in conversations. The learning and conversing about current events between *Baloos* and *Mowglis* is also reflected by the *Balu & Du* organization providing support and resources to their mentors on how they can talk about the war in Ukraine with their mentees (Balu und Du e.V. 2023).

The *Balu & Du* one-on-one mentoring consists of ideally spending one afternoon (one to three hours) per week together while engaging in highly interactive activities that are tailored to the individual interests, weaknesses and needs of the child. Such activities are, for example, going to a museum, doing handicrafts, sports, having a conversation, exploring nature, and playing games (Müller-Kohlenberg and Drexler 2013, 109). Activities are agreed on in a discursive manner between the *Mowgli* child and the *Balu* mentor (Niebuhr 2020).

A mentor is considered an altruistic role model who is socially enriching the child's environment (Müller-Kohlenberg and Drexler 2013). Existing research has found a positive correlation between altruism as well as prosociality, both in terms of attitudes and behavior, and political participation such as discussing politics and voting (Saha 2004, Fowler 2006, Fowler and Kam 2007, Dawes, Loewen, and Fowler 2011). The volunteer mentors in the intervention study in the bfp are also more altruistic than the mothers in the sample who are the primary caregiver of the children (Kosse et al. 2020). Previous studies on the benefits of mentoring interventions on the mentors have also shown that college mentors that mentor at-risk youths are on average more politically aware and politically and civically engaged before their mentoring experience. This even increased during their time as mentors, while they also agreed more with the statement that it is their duty to solve social problems (Weiler et al. 2013).

The mentoring program is under professional guidance, where mentors are expected to complete an online diary every week in which they give details of the activities they carried out with their mentee and any potential problems of the mentor-child relationship. The program coordinators of *Balu & Du*, who are trained professionals, evaluate and comment on the diaries and provide support if necessary. There are also biweekly monitoring meetings in which mentors and program supervisors interact, and mentors receive suggestions on potential activities the mentors and mentees could do together (Kosse et al. 2020). The diaries provide us with examples of how politics was the topic of several conversations. For example, one mentee asked the mentor what politicians and the government are and how this works. Specifically, the mentee asked about the president of Germany and about politicians in general. Another mentor mentions that the mentor and the mentee went on election day together to the polling station. Several mentors went to the museum *Haus der Geschichte* in Bonn that discusses the history of the Federal Republic of Germany and its political system. One mentor mentioned that they talked about the first German chancellor Konrad Adenauer, and the mentor explained what a parliament is and why it exists. Another specifically mentions that they explained the concept of a parliament and the process of voting in parliaments to the mentee. Talking about German history and especially the World Wars and the German separation and unification occurs from time to time as well.[5]

To be eligible for participation in the mentoring program within the bfp sample, children must be from a low socioeconomic status household. Following the definition used for sampling in Kosse et al. (2020, 441) a household is classified as low socioeconomic status if the household satisfies at least one criterion: (I) Low Income: the household has a low income (equivalence income is less than 1,065€, which is the 30% quantile of the German income distribution at the time of the sampling); (II) Low Education: neither of the parents of the child has a school-leaving degree qualifying for university studies (*German Abitur)*; (III) Single-Parent Household: a household is classified as a single-parent house-

[5]A detailed list of the German-language quotes from the diaries is listed in Table B.1 and Table B.2 in the Appendix.

hold if the main caregiver is not living together with a partner, resulting in stronger time constraints. If none of the low SES criteria is met, the household is classified as a high SES household. After the baseline survey in the fall of 2011, and the subsequent evaluation of the mentoring program in early 2013, an annual panel was established. The variables of political attitudes we are using are from wave 8 (in 2019, when the children in the sample were between 15 and 17 years old), wave 9 (in 2020, when the children were between 16 and 18 years old) and wave 10 (in 2021, when the children were between 17 and 19 years old) of the panel.

The matching of mentors and mentees was done by the *Balu & Du* organization, but since not all children in the treatment group were matched with a mentor (lack of mentors, mentor refusals, and other external reasons such as coordination problems with the family of the children), we are looking at an intention-to-treat design (ITT). 74% of the children in the ITT group were successfully matched with a mentor, while for 26% of the children in the ITT group, this was not possible. Most of the children that were not matched with a mentor were never contacted by *Balu & Du* (Kosse et al. 2020, 448). The ITT design is able to maintain the original randomization and provides us, in general, with conservative estimates of the treatment effect.[6]

The data set has, among others, previously been used in Kosse et al. (2020) and Falk, Kosse, and Pinger (2020). Kosse et al. (2020) show that the aforementioned mentoring leads to higher prosocial behavior among treated low socioeconomic status children. In Falk, Kosse, and Pinger (2020) the authors show that the mentoring leads to a significantly higher attendance of higher-school tracks by the treated children.

Other research on childhood interventions has also found, that even though the aim of an intervention might at first glance not directly be related to political attitudes and political behavior, they might still be affected. Sondheimer and Green (2010), Holbein (2017), and Holbein et al. (2022) show that childhood interventions that foster noncognitive skills, such as prosocial behavior, and educational attainment, are able to causally increase political participation among adults who participated in the childhood intervention.

[6] Attrition in the sample is not significantly different between the treatment groups.

2.4.2 Measures of Political Attitudes and Participation

For our measures of political attitudes, political preferences, and political participation, we use a wide range of variables that are common in political surveys.

Left-Right Self-Placement One of the most commonly used concepts to get an overall understanding of an individual's general political leaning is the Left-Right Self-Assessment item. We use this item following the German Longitudinal Election Study GLES (2019). We ask the individuals in our sample: "Many people use terms like 'left' and 'right' to denote different political attitudes. We have a scale here that runs from left to right. If you think about your political views, where would you place those views on this scale?". Respondents could state their political leaning on an 11-point Likert scale from left to right. In addition, they could respond with "Do not know the term(s)", "Does not apply", "Don't Know", or "No answer". The original German version of the item can be found in Appendix B.2.1 in Table B.3.

Party Vote & Political Participation For voting as the most crucial form of political participation, we use a filtered question in which only individuals who intend to vote are asked which party they would vote for. The filter question was: "If there were a federal election next Sunday and you were eligible to vote, would you vote?" (federal elections in Germany are always on Sundays).[7] Regarding the party preference in the second step, we asked: "Which party would you vote for if there were a federal election next Sunday?". The respondents could respond with the most common German parties, namely "SPD", "CDU", "CSU", "FDP", "Bündnis 90/Die Grünen", "Die Linke", "AfD", "NPD/Republikaner/Die Rechte". Furthermore, they could choose the option "other", when they were then asked to specify the other party. They also had the option of responding with "Keine Angabe/No answer" as a form of item nonresponse. The original

[7]Citizenship could arguably be crucial as some adolescents without German citizenship are not allowed to vote. Therefore, we include the pretext that respondents should assume that they are eligible to vote. Furthermore, voting age and recent elections to which the adolescents were exposed are outlined in section 2.5.2.

German version of the items can be found in Appendix B.2.1 in Table B.3.

Political Issues We asked individuals about their attitudes toward certain issues based on items from GLES (2019). We elicit attitudes on redistribution and taxation by asking the question: "Some people prefer lower taxes, although this results in less social services. Others prefer more social services, although this results in raising taxes. And what position do you take on the issue?". Respondents could state their attitude on an 11-point Likert scale ranging from "Lower taxes, although this results in less social services" to "More social services, although this results in raising taxes". Furthermore, the respondents could answer with "Don't Know" or "No answer". Regarding migration, we asked the individuals the question: "And what about immigration? Should it be easier or more difficult for foreigners to immigrate? What position do you take on the issue?". The respondents could state their attitude on an 11-point Likert scale ranging from "Immigration for foreigners should be easier" to "Immigration for foreigners should be more difficult". Furthermore, the respondents could answer with "Don't Know" or "No answer". Regarding climate change we asked: "Some say that the fight against climate change should definitely take precedence, even if it impairs economic growth. Others say that the economic growth should definitely take precedence, even if it impairs the fight against climate change. What position do you take on the issue?". The respondents could state their attitude on an 11-point Likert scale ranging from "Fight against climate change should take precedence, even if it impairs economic growth" to "Economic growth should take precedence, even if it impairs the fight against climate change". Furthermore, the respondents could answer with "Don't Know" or "No answer". The original German versions of the items can be found in Appendix B.2.1 in Table B.4.

2.5 Results

Similarly to the findings in section 2.3, we analyze the SES gaps in item nonresponses for the political items in our survey. First, we look at left-right self-placement as an item, which directly refers to an underlying political self-identification of the adolescents in our sample. Second, we analyze SES gaps in the party vote question on which party the adolescents would vote for if there were a general election next Sunday. This is a standard measure used as an item to elicit current political attitudes of adolescents. Third, in line with the party vote item, we ask the adolescents about their attitudes on three different issues, which are redistribution/economic growth, immigration, and environment/climate change. Following the potential nonresponse bias that *DK* responses, which are contingent on socioeconomic status, could create, it is compelling to analyze how to mitigate such SES gaps. For that reason, we look at a childhood mentoring intervention that enriched the childhood of treated low SES children in our sample (as described in section 2.4) and the likelihood of expressing/holding political attitudes. In a subsequent step, we evaluate education and prosociality as potential channels of item nonresponses, respectively, the mitigation of such, and rule out potential causes of item nonresponses.

2.5.1 SES Gap in Left-Right Self-Placement

Figure 2.3 shows that there is a significant gap between low and high SES adolescents in our data in the share of *DK* responses to the left-right self-assessment item. The graph shows the average share of three consecutive annual waves. 19% of low SES individuals respond on average that they do not know where they would position themselves on the left-right political spectrum, whereas only 9% of high SES individuals do so on average. The gap between high and low SES individuals is significant ($p<0.01$). In the figure, we also see that the treated adolescents from low SES households are, with 10%, very close to the high SES group (there is no significant difference between the treatment and the high SES group). The treatment group is significantly different from the low SES control group ($p<0.01$). The treatment closes the SES gap completely and shows that the *DK*

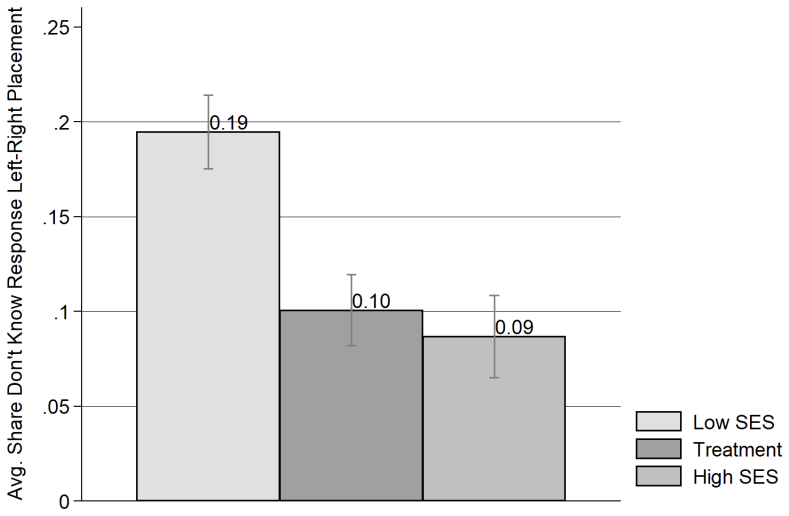


Figure 2.3: Don't Know Responses on the Left-Right Self-Placement

The displayed variable is the average share across three waves of respondents who answered "Don't Know" on the left-right self assessment item. The number of observations is 482 with 249 individuals in the low SES (LSES) control group, 139 individuals in the treatment group, and 94 individuals in the high SES (HSES) control group. There is a significant difference between LSES and HSES groups of magnitude 0.1 ($p<0.01$). There is no significant difference between the treatment group and the LSES control group. Error bars show standard errors of the means.

responses of low SES adolescents are malleable through a childhood mentoring intervention. Even years after the intervention took place, the mentoring had long-lasting effects. Adolescents from the low SES control group, who never received the treatment, show significantly higher item nonresponses than high SES adolescents.

In addition to the *DK* option, we included the options "Does not apply", "Do not know the term(s)", and "No answer", to capture any type of item nonresponse. Figure 2.4 shows the average rate of item nonresponse by group across three waves of observation. On average 36% of low SES control group adolescents respond with any type of item nonresponse, while this is the case for only 18% of the high SES adolescents (significant difference ($p<0.01$)). The average item nonresponse for individuals in the treatment group is 24%, which mitigates the SES gap.

The different types of item nonresponse might measure something different and might be given due to different reasons; hence, we split the responses in Table 2.1. Column (I) in Table 2.1 shows the results of Figure 2.3. Column (II) displays the results as presented in

Figure 2.4, where the constant is equal to the average share of item nonresponses of low SES individuals. Column (III) displays the results for the response "No answer", where we see that there is no SES gap and also no treatment effect. Column (IV) displays the results for the "Does not apply" response as a dichotomous dependent variable on the Left-Right placement item. We observe no significant SES gap and also no treatment effect here. Column (V) shows the estimation results, where "Do not Know the Term(s)" is a dichotomous dependent variable. Here, we observe that about 6% of the low SES control respondents respond that way, while close to zero of the high SES control group responds that way. The treatment group does not differ significantly from the low SES control group. This shows that high SES adolescents are either all familiar with the concept or more likely to respond that they are familiar with the political left-right concept. Given that we only observe a treatment effect on the "Don't Know" response, we infer that the treatment only affects the likelihood to express an attitude and does not affect the likelihood to respond with any of the alternative responses. The treatment effect is also robust to controlling for the "Don't Know" response of the main caregiver (see Table B.11 in the Appendix).

Table 2.1: Split of Item Nonresponses on Left-Right Placement

	(I) Don't Know	(II) Any Nonresponse	(III) No Answer	(IV) Does not apply	(V) Don't Know the term(s)
Treatment	-0.092***	-0.111***	-0.010	0.010	-0.019
	(0.03)	(0.04)	(0.02)	(0.02)	(0.02)
High SES	-0.106***	-0.171***	-0.018	0.008	-0.054***
	(0.03)	(0.04)	(0.02)	(0.01)	(0.01)
Constant	0.188***	0.338***	0.064***	0.030**	0.057***
	(0.03)	(0.04)	(0.02)	(0.01)	(0.02)
N	482	482	482	482	482

Notes: The dependent variable in column (I) is dummy, which is one if the individual provided "Don't Know" as response on the question "We have a scale here that runs from left to right. If you think about your own political views, where would you place those views on this scale?", and zero otherwise. The dependent variable in column (II) is a dummy, which is one if the surveyed adolescent provided any form of item nonresponse, where a item nonresponse is defined heres as giving either the response "Don't Know", "No answer", "Does not apply", or "Don't know the term(s)". Column (III) uses only "No answer" as a dichotomous dependent variable. Column (IV) uses only "Does not apply" as a dichotomous dependent variable. Column (V) uses only "Don't know the term(s)" as a dichotomous dependent variable. Treatment is a dummy variable, which is one if the child was in the treatment group and zero otherwise. *HSES* is a dummy, which is one if the child is from a high socioeconomic status household and zero otherwise. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

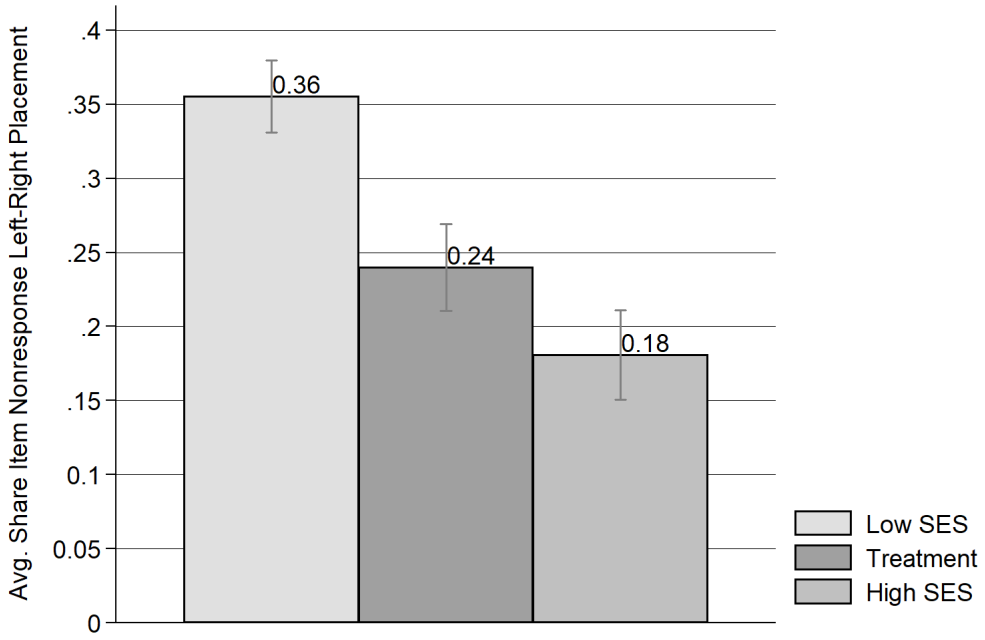


Figure 2.4: Item Nonresponses on Left-Right Self-Placement

The displayed variable is the average share of respondents who answered either "Don't Know", "No answer", "Does not apply", or "Don't Know the term(s)" on the left-right self-assessment item. The number of observations is 482 with 249 individuals in the low SES (LSES) control group, 139 individuals in the treatment group, and 94 individuals in the high SES (HSES) control group. There is a significant difference between the LSES and HSES control groups of around 17.5 percentage points ($p<0.01$). Error bars show standard errors of the means.

2.5.2 SES Gap in Party Vote

In order to elicit some form of early partisanship, we asked the adolescents in our sample which party they would vote for if there were a federal election next Sunday. Since adolescents do not yet have long-lasting partisanship, we use this as a proxy for partisanship and political leaning. However, some of the respondents had already had the opportunity to vote in different types of elections. In May 2020, local and municipal elections took place in the German state of North Rhine-Westphalia, the state where the sampling was originally conducted, and a large share of the respondents still live. In those local elections, adolescents with EU citizenship who were at least 16 years old on the day of the election were allowed to vote. This means that some of the adolescents in our sample were eligible to vote in the 2020 local elections. Furthermore, in September 2021, German

federal elections took place, where the voting age is 18 years and German citizenship is required to be eligible to vote.[8] Given the high visibility of elections to the individuals in our sample throughout the survey years, it is possible that this salience contributed to higher reported voting intentions and a lower rate of item nonresponse, potentially making our results more conservative.

The voting question is a filtered question in which only individuals who intend to vote are asked which party they would vote for. The distribution of "Do not intend to vote", respectively "NA", on the filter question "If there were a federal election next Sunday and you were eligible to vote, would you vote?" is distributed in the following way (see Figure 2.5): Low SES individuals state on average at 22% that they would not vote, treated low SES individuals at 18%, and high SES individuals only at 3% that they would not vote if there were a federal election on Sunday. We find a significant gap between the low SES control group and the high SES control group ($p<0.01$), but we do not find a significant treatment effect on the likelihood of voting intention.

[8]In May of 2022 the North Rhine-Westphalian state election also took place, which might have been anticipated by the individuals during our elicitation period, respectively might have increased the salience of elections.

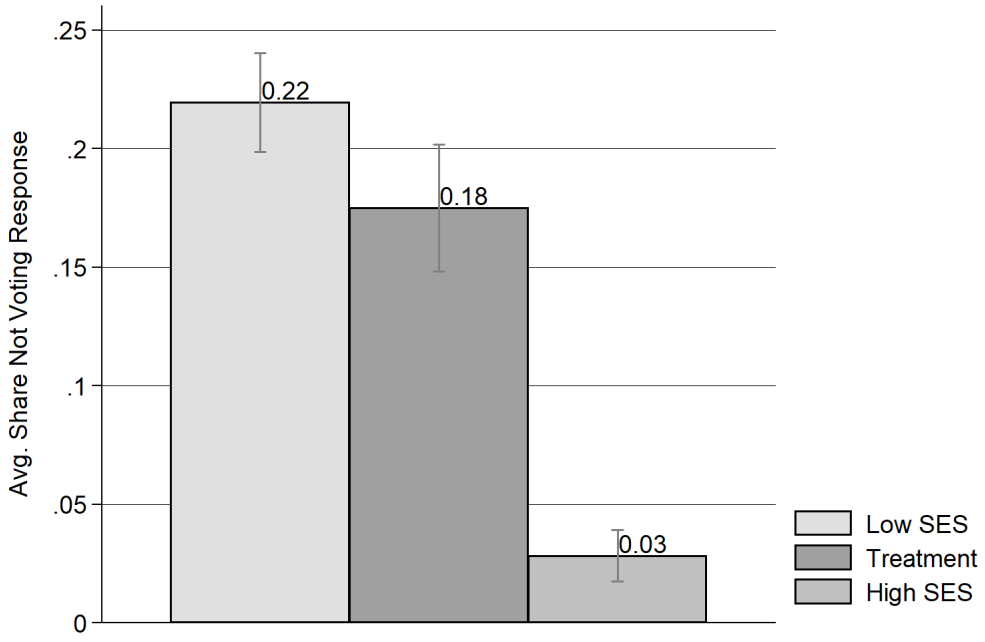


Figure 2.5: Not Voting

The displayed variable is the average across three waves of respondents who answered that they would not vote or *NA* in an upcoming election. The number of observations is 482 with 249 individuals in the low SES control group, 139 individuals in the treatment group, and 94 individuals in the high SES control group. There is a significant difference between the low SES control group and the high SES control group of magnitude 0.19 ($p<0.01$), there is no significant difference between the low SES control group and the treatment group. Error bars show standard errors of the means.

In the next step, we analyze in Figure 2.6 the distribution of item nonresponses on which party the individual would vote for among individuals, who indicated that they would vote in the previous filter question. Hence, individuals who stated that they would not vote are excluded here. Figure 2.6 shows that conditional on intended voting about 21% of low SES individuals provide an item nonresponse on the question "Which party would you vote for if there were a federal election next Sunday?". 14% of the adolescents in the treatment group provided an item nonresponse and 9% of the adolescents in the high SES control group. We observe a significant treatment effect ($p<0.05$). Treatment closes a substantial part of the SES gap, and hence individuals of the treatment group are less likely to provide an item nonresponse on which party they would vote for. Although there is a strong intergenerational correlation of item nonresponses on the party vote item, the treatment effect is fairly robust to controlling for the item nonresponse of the main

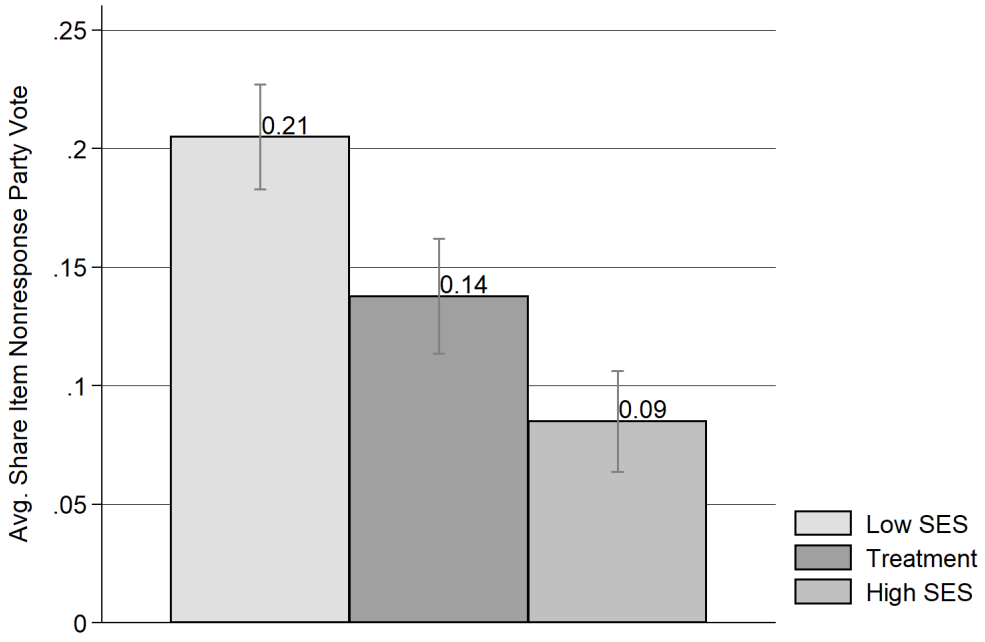


Figure 2.6: Item Nonresponse on Party Vote Among Voters

The displayed variable is the average across three waves of respondents who answered *NA* as a form of item nonresponse on the question which party they would for if they stated in a previous question that they would vote if there were an upcoming election. The number of observations is 447 with 226 individuals in the low SES control group, 127 individuals in the treatment group, and 94 individuals in the high SES control group. There is a significant difference between the low SES control group and the high SES control group of magnitude 0.12 ($p<0.01$). There is a significant treatment effect of 0.07 ($p<0.05$). There remains a significant difference of 0.05 ($p<0.1$) between the treatment group and the high SES control group indicating that the SES gaps is not fully mitigated. Error bars show standard errors of the means.

caregiver of the child (see Table B.11 in the Appendix).

2.5.3 SES Gaps in Issue Responses

Besides placing oneself on the left-right political scale and stating a party preference, we are interested in the attitudes of the respondents on key political issues. These issues are namely redistribution, migration, and climate change. The questions are phrased so that the respondent has to choose an option on an 11-point Likert scale between two opposing policy stances.[9] Again, we are interested in the *DK* responses of adolescents based on their socioeconomic status and, respectively, their treatment status. Figure 2.7 displays

[9]The wording of the political issues are taken from the questionnaire of GLES (2019) (see also Table B.4 in the Appendix).

the share of *DK* responses on the redistribution issue (see subsection 2.4.2). We observe a significant SES gap of about 10 percentage points ($p<0.1$) between the LSES control group and the HSES control group. The treatment closes the SES gap and this treatment effect is also robust to controlling for parental (main caregiver) item nonresponse on the issue (see Table B.11 in the Appendix).[10] The SES gap is especially interesting since low SES individuals are typically considered to be the natural proponents of redistribution. The results are in line with Berinsky (2002b), who finds that education and income are positively correlated with the probability of providing a response. The SES gap in providing a response on the redistribution issue can have adverse effects if surveys are used to justify certain policies. Overall, there is a high share of *DK* responses to the redistribution item across all groups, which suggests that this may be a challenging question for many adolescents in our sample. The difficulty in answering this question could stem from the wording of the question itself, as well as the high level of knowledge required on topics such as taxation, redistribution, and the welfare state.[11]

[10] In addition, we use *No Answer/Keine Angabe* (NA) as another form of item nonresponse. We pool *DK* and *NA* as a dependent variable as item nonresponse for the three political issues outlined in this chapter. Figures and a discussion of the results can be found in section B.4 in the Appendix.

[11] Furthermore, redistribution and the welfare state might also be less salient to the adolescents. For that reason, we also elicit the importance that respondents attribute to the issues in Table B.9 in the Appendix, which shows that the baseline importance as expressed by the constant is fairly similar to the political issue of migration, but less than the importance of the political issue of climate change.

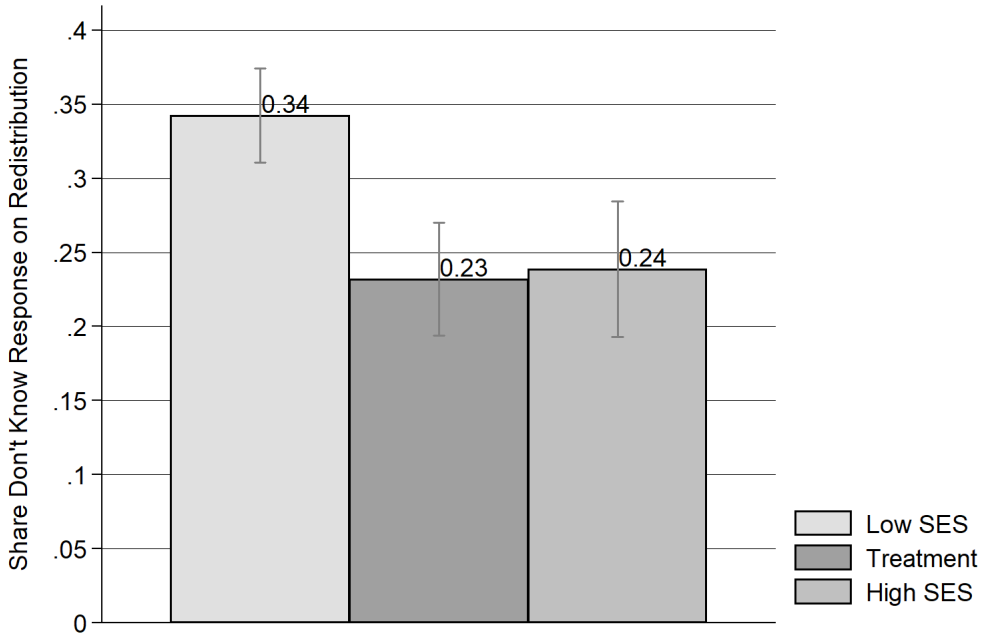


Figure 2.7: Don't Know Responses on Redistribution Issue

The displayed variable is the share of respondents who answered "Don't Know" on the redistribution and taxation item. Results are from panel wave 8 in which the respondents were between 15 and 17 years old. The number of observations is 438, with 225 individuals in the low SES (LSES) group, 125 individuals in the treatment group, and 88 individuals in the high SES (HSES) group. Error bars show standard errors of the means. Figure B.1 in the Appendix displays all item nonresponses on this issue combined.

Figure 2.8 shows the rate of *DK* responses among the three groups in our sample on the migration issue (see subsection 2.4.2). The distribution of the *DK* responses between the three groups in our sample shows that there is no significant difference between the low SES control group and the high SES control group. At the same time we do not observe a significant treatment effect.

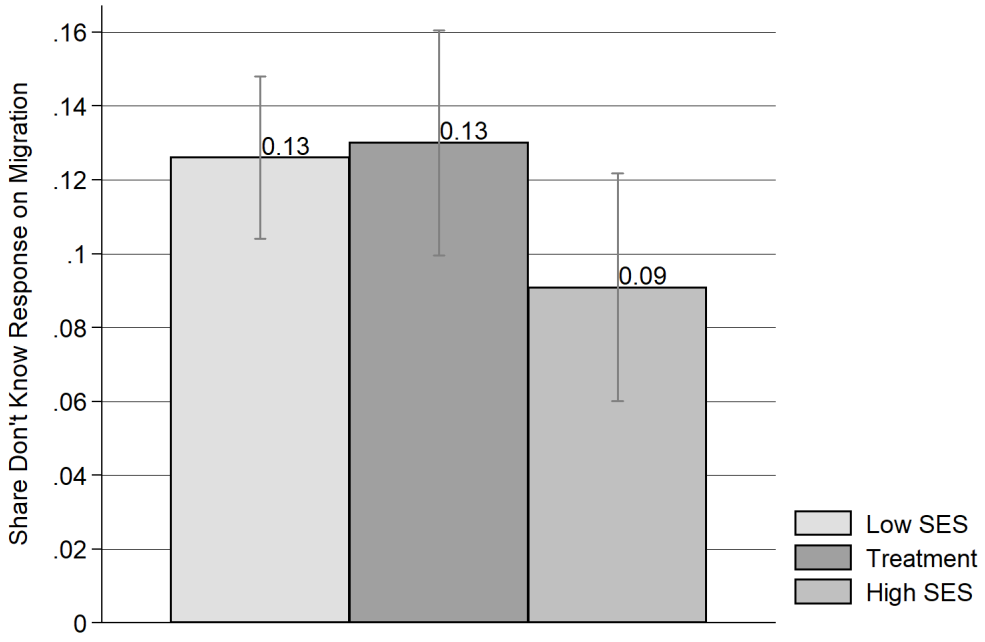


Figure 2.8: Don't Know Responses on Migration Issue

The displayed variable is the share of respondents who answered "Don't Know" on the migration item. Results are from panel wave 8 in which the respondents were between 15 and 17 years old. The number of observations is 441, with individuals 230 individuals in the low SES (LSES) control group, 123 individuals in the treatment group, and 88 individuals in the high SES (HSES) control group. Error bars show standard errors of the means. Figure B.2 in the Appendix displays all item nonresponses on this issue combined.

Regarding the issue of climate change versus economic growth, we asked respondents to state their attitude on the issue (see subsection 2.4.2). The results in Figure 2.9 show that there is a significant SES gap ($p<0.01$) between individuals in the low SES control group, where on average 11% of the respondents selected the *DK* option, and the high SES group, in which only about 2% did. We do not find a significant treatment effect.

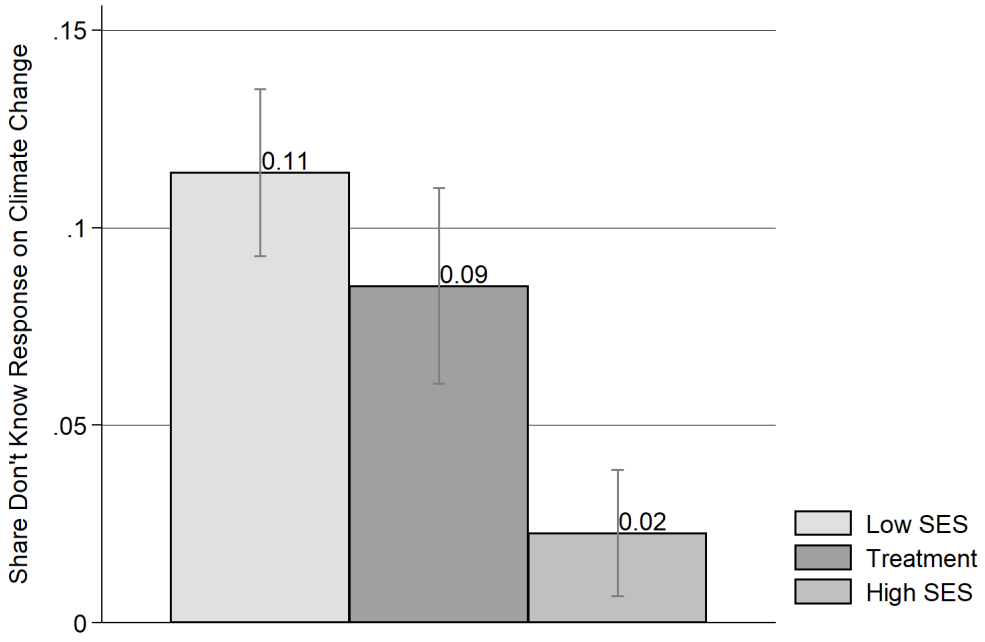


Figure 2.9: Don't Know Responses on Climate Change Issue

The displayed variable is the share of respondents who answered "Don't Know" on the climate change item. Results are from panel wave 8 in which the respondents were between 15 and 17 years old. The number of observations is 445, with 228 individuals in the low SES (LSES) control group, 129 individuals in the treatment group, and 88 individuals in the high SES (HSES) control group. Error bars show standard errors of the means. Figure B.3 in the Appendix displays all item nonresponses on this issue combined.

In comparison, the climate change issue invokes the lowest share of *DK* responses, whereas the redistribution issue invokes the highest share of *DK* responses. In addition to the survey items on attitudes toward political issues, we asked respondents how important they consider the issue to themselves. Table B.9 in the Appendix shows the attributed importance of the three political issues by group (low SES control group, treatment group, and high SES control group). The most important issue is climate change, followed by the redistribution issue, and the lowest importance is attributed to the migration issue. We do find that high SES adolescents do on average consider all three issues to be significantly more important than individuals from the low SES control group. However, we do not find a significant treatment effect on the importance adolescents in the treatment group place on the issues compared to the low SES control group.

2.5.4 Channels of Item Nonresponses

So far, we have shown that a childhood intervention can causally change the likelihood of expressing political preferences and attitudes, and thus mitigate socioeconomic gaps. However, the intervention does not change the average political attitudes in the treatment group, as shown in section B.5 and section B.6 in the Appendix. In the following, we will analyze different potential channels of how treatment might affect the lower likelihood of item nonresponses, such as *DK* responses, on political items.

Ruling Out Social Desirability

One concern is that the reduction in *DK* responses among treated low SES individuals not only empowers them to express their opinion, but also that the treatment changes the opinions of treated adolescents. Hence, if the treated adolescents become more similar to the high SES adolescents with regard to their attitudes, they are more likely to express their opinion if it is closer to "mainstream" attitudes and further away from any extreme attitudes. To show that the nonresponses of the untreated adolescents are not due to them strategically concealing extreme attitudes, which they might not perceive as socially accepted or desirable, we exploit behavioral data from dictator games.

In these dictator games, adolescents were asked to distribute money between themselves and a charitable organization concerned with helping refugees, redistribution, or climate change. Abstention through a nonresponse category was not possible here, and since it was an incentivized game, it was also not economically sensible for the participants. We test whether respondents who selected the *DK* category in the political attitude items deviate in their charitable giving from respondents who provided a clear response to political issues. The dictator game used here is as follows: Respondents were faced with three decisions in which they could distribute 10 stars between themselves and a charitable organization. One star equals 0.80€, and after all decisions are made, a randomized computer process decides which of the decisions is payoff relevant and informs

the adolescent about the result.[12] The adolescents in the panel are familiar with the type of dictator game played here because different variations have been included in previous waves. Individuals had to decide on distributing an integer of 10 stars between themselves and the charitable organization. Only integer allocations that account for 10 stars of the following form [(0:10),(1:9)...(10:0)] were allowed. The individuals were asked to distribute stars between themselves and "an organization committed to environmental and climate protection", "an organization that supports refugees in Germany", and "an organization that aims to narrow the gap between rich and poor people in Germany". The order in which the decisions were made was random. The survey conductor assured the adolescents that the money is paid to the charitable organization. Table 2.2 shows the average stars distributed among the respective organizations. Column (I) displays that on average, everything else equal, 6.6 stars were allocated to the charitable organization committed to narrowing the gap between rich and poor in Germany by the respondents, who never responded with *DK* on the left-right self-placement item. The variable *Avg. Share of Don't Know* is the average share of *DK* responses on the left-right placement of the individual across multiple waves (one to three waves depending on data availability). The coefficient is not significantly different from the constant, i.e., the group that never gave a *DK* response on the left-right self-placement item. The sample in column (I) consists of individuals from the low SES control group and the high SES control group.[13] Since the high SES and low SES individuals may differ in their charitable giving and show different uses of *DK*, we restrict the sample to only low SES individuals in column (II). The coefficient of the explanatory variable is still insignificant. Column (III) is analogous to column (I), with the charitable organization now being the one committed to helping refugees in Germany, while column (IV) is the same estimation with the sample restricted to only the low SES adolescents. Columns (V) and (VI) are analogous with the charitable organization that promotes environmental and climate protection. We observe that the highest allocation of

[12] A detailed description of the dictator games with the exact wording is provided in the Appendix in B.2.3.

[13] Since the treatment affects the likelihood of giving a *DK* response, we exclude the treatment group in this analysis.

stars among never *DK* responders is made for an organization concerned with the environment and climate change. In terms of any social-desirability bias, the migration issue is certainly the most sensible. We observe in columns (III) and (IV) in terms of magnitude the largest coefficients for the explanatory variable, and the negative sign is in the direction where we expect it to be if social-desirability bias is at play and respondents would try to conceal anti-refugee/anti-foreigner attitudes that way. However, in both specifications, the coefficient is not significant, and if we look at the restricted sample with only low SES individuals in column (IV), we see an even smaller coefficient.

Since we do not see any significant coefficients for the left-right self-placement Don't Know variable across all six estimations, this shows that the respondents providing any *DK* response(s) on the left-right self-placement do not differ with regard to their charitable giving from the respondents, who never gave a *DK* response on the item. From that, we conclude that the *DK* category in the left-right placement is on average not chosen by the respondents to conceal attitudes, especially since previous research has found that giving in dictator games correlates with political attitudes (Fowler 2006, Dawes, Loewen, and Fowler 2011, Fisman, Jakiela, and Kariv 2017, Kerschbamer and Müller 2020). Furthermore, if the *DK* respondents were extremely indifferent or completely unconcerned with politics, we would expect the charitable donations to be lower, especially since giving to the charitable organization itself is not apolitical, because the charitable organizations are taking a strong position on a political issue (pro-refugee, pro-environmentalist, pro-redistribution). In addition, the incentivized structure of dictator games implies a financial loss for choosing a "socially accepted" allocation that is deviating from the actual preferred allocation. Hence, concealing an attitude implies foregoing financial gains. As respondents who partly or always respond with *DK* do not differ significantly from respondents who always provided a "valuable" response on the left-right placement, we argue that there are actual political attitudes underlying the *DK* response. Especially if we assume that individuals are not willing to forego financial gains by supporting organizations that support causes that are contrary to the attitudes of the individual.

Table 2.2: Left-Right Don't Know & Behavior in Dictator Games

	Redistribution		Migration		Climate Change	
	(I)	(II)	(III)	(IV)	(V)	(VI)
Avg. Share of Don't Know L-R	0.035	0.242	-0.480	-0.279	0.009	0.178
	(0.55)	(0.63)	(0.55)	(0.61)	(0.56)	(0.63)
Constant	6.605***	5.866***	6.895***	6.221***	7.092***	6.387***
	(0.31)	(0.41)	(0.30)	(0.40)	(0.31)	(0.41)
Only LSES Control		✓		✓		✓
N	343	249	343	249	343	249

Notes: The dependent variable in columns (I) & (II) is the average amount of stars given to an organization that aims to narrow the gap between rich and poor people in Germany. The dependent variable in columns (III) & (IV) is the average number of stars given to an organization that supports refugees in Germany. The dependent variable in columns (V) & (VI) is the average number of stars given to an organization committed to environmental and climate protection. The dictator games were played in two consecutive waves and the results here display the average of those two waves where available. If only one value was available this value was used. The explanatory variable *Avg. Share of Don't Know L-R* is the average share of *DK* responses an individual gave on the left-right self-placement across three consecutive waves if available. If less than three observations were available, the average of two waves or if only one observation was available this observation was used. Hence the explanatory variable can take any of the values [0, 0.33, 0.5, 0.66, 1]. In columns (I), (III), and (V) the sample consists of adolescents from the LSES control group and the HSES control group. In columns (II), (IV), and (VI) the sample is restricted to adolescents from the LSES control group. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

In Table 2.3 we show the analogous approach with the average share of item nonresponses on the party vote item described in subsection 2.5.2 as an explanatory variable. Again, we do not find significant differences in donations between individuals who partially or always responded with an item nonresponse on the question of which party they would vote for if they had previously replied that they would participate in the election.

Table 2.3: Party Vote Item Nonresponse & Behavior in Dictator Games

	Redistribution		Migration		Climate Change	
	(I)	(II)	(III)	(IV)	(V)	(VI)
Avg. Share NA Party	-0.690	-0.490	-0.515	-0.045	0.085	0.550
	(0.67)	(0.77)	(0.66)	(0.73)	(0.66)	(0.74)
Constant	6.687***	5.985***	6.882***	6.177***	7.084***	6.336***
	(0.31)	(0.42)	(0.30)	(0.40)	(0.31)	(0.41)
Only LSES Control		✓		✓		✓
N	343	249	343	249	343	249

Notes: The dependent variable in columns (I) & (II) is the average amount of stars given to an organization that aims to narrow the gap between rich and poor people in Germany. The dependent variable in columns (III) & (IV) is the average number of stars given to an organization that supports refugees in Germany. The dependent variable in columns (V) & (VI) is the average number of stars given to an organization committed to environmental and climate protection. The dictator games were played in two consecutive waves and the results here display the average of those two waves where available. If only one value was available this value was used. The explanatory variable *Avg. Share NA Party* is the average share of *NA* as an item nonresponse an individual gave on the Party Vote item across three consecutive waves if available. If less than three observations were available, the average of two waves or if only one observation was available this observation was used. Hence the explanatory variable can take any of the values [0, 0.33, 0.5, 0.66, 1]. In columns (I), (III), and (V) the sample consists of adolescents from the LSES control group and the HSES control group. In columns (II), (IV), and (VI) the sample is restricted to adolescents from the LSES control group. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

Furthermore, Table 2.4 shows the relationship between *DK* responses to the issues of subsection 2.5.3 and charitable giving for the corresponding charitable organization. We see that for redistribution, *DK* respondents give more, but not significantly, to the charitable organization. The same holds for the migration/refugee issue, while the coefficients for climate change are negative but also insignificant. These insignificant coefficients assure us that the true preferences are not concealed by choosing the *DK* option.

To conclude, we rule out that social desirability, based on individuals trying to conceal their attitudes that could be considered socially unacceptable, causes the *DK* responses. This suggests that there are some forms of political preferences and that they do not differ significantly from the attitudes/preferences of the respondents who do not provide a *DK* response. Therefore, we argue that social desirability is not the channel through which treatment would affect the lower *DK* responses on political items.

Table 2.4: Issues Don't Know & Behavior in Dictator Games

	Redistribution		Migration		Climate Change	
	(I)	(II)	(III)	(IV)	(V)	(VI)
Don't Know Redistribution	0.327	0.663				
	(0.35)	(0.41)				
Don't Know Migration			0.475	0.587		
			(0.54)	(0.64)		
Don't Know Climate Change					-0.676	-0.515
					(0.50)	(0.54)
Constant	6.567***	5.778***	6.787***	6.163***	7.223***	6.690***
	(0.34)	(0.45)	(0.31)	(0.41)	(0.31)	(0.41)
Only LSES Control		✓		✓		✓
N	313	225	318	230	316	228

Notes: The dependent variable in columns (I) & (II) is the average amount of stars given to an organization that aims to narrow the gap between rich and poor people in Germany. The dependent variable in columns (III) & (IV) is the average number of stars given to an organization that supports refugees in Germany. The dependent variable in columns (V) & (VI) is the average number of stars given to an organization committed to environmental and climate protection. The dictator games were played in two consecutive waves and the results here display the average of those two waves where available. If only one value was available this value was used. The explanatory variable *Don't Know Redistribution* is a dummy for the *DK* response an individual gave on the redistribution item as described in subsection 2.5.3. The explanatory variable *Don't Know Migration* is a dummy for the *DK* response an individual gave on the migration item as described in subsection 2.5.3. The explanatory variable *Don't Know Climate Change* is a dummy for the *DK* response an individual gave on the climate change item as described in subsection 2.5.3. In columns (I), (III), and (V) the sample consists of adolescents from the LSES control group and the HSES control group. In columns (II), (IV), and (VI) the sample is restricted to adolescents from the LSES control group. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

Education and Prosociality

The question remains whether the treatment effect on item nonresponses is driven by previously documented treatment effects of the mentoring program. Specifically, the effects on education (Falk, Kosse, and Pinger 2020) and prosociality (Kosse et al. 2020). This would be plausible because educational attainment and *DK* responses are negatively correlated in several studies (Converse 1976, Berinsky 2002b, Laurison 2015). The same holds true for educational attainment levels and actual political participation, but the evidence on whether education causes participation is mixed (Brady, Verba, and Schlozman 1995, Mayer 2011, Persson 2013, Armingeon and Schädel 2014, Schäfer, Roßteutscher, and Abendschön 2020, Willeck and Mendelberg 2022).

In the case of Germany, Eckstein, Noack, and Gniewosz (2012) find that the school track, especially attending a college-bound school track, is positively correlated with the political participation of adolescents.

Sondheimer and Green (2010) find that interventions in early childhood and adolescence among low SES individuals, such as the Perry Preschool experiment, increase educational attainment, in terms of high school graduation rates, and also increase political participation of treated individuals in adulthood, in terms of voting in US presidential elections.[14] Holbein (2017) finds that in a randomized controlled trial, a childhood skill development intervention in schools, targeted at fostering psychosocial and noncognitive skills of disadvantaged children, is able to causally increase political participation in the form of voting 20 years after the intervention. However, a mediation analysis revealed that educational attainment only explains little of the average direct effect of the treatment. Holbein (2017, 581) argues that the treated children "[...] who develop psychosocial skills early on are more likely to be set on a path toward active civic participation in adulthood." Holbein et al. (2022) also find that an early childhood intervention among low socioeconomic status children aimed at fostering noncognitive skills, such as social and emotional skills, can promote voting in adulthood. They compare two interventions and find that

[14]See also Heckman et al. (2010) on the rate of return to the Perry Preschool Intervention.

the one-year long intervention set out to foster skill development in the classroom setting is crucial in promoting adult participation, while another intervention aimed at increasing the partnership between parents and schools failed to do so.[15]

Germany is among the countries with the earliest tracking in the school system with children being about 10 years old at the end of four years of elementary school. Higher-track schools for upper secondary school degrees in Germany qualify students to enter university after graduation (German *Abitur*). All other education programs are classified here as lower-track schools, which are typically shorter and prepare students for vocational training afterward. High SES children are more likely to attend high-track schools than low SES children. Falk, Kosse, and Pinger (2020) show that the mentoring intervention in the briq family panel causally mitigates the SES gap in school tracking, that is, more low SES children from the treatment group than children from the low SES control group are placed in higher track schools. About a third of the unconditional SES gap (i.e., without conditioning on GPA, sex, and age of the child) is closed by the intervention, while about half of the conditional SES gap is closed. The dependent variable, school track attendance, is one if the child attends a high track school and zero otherwise.

Furthermore, Kosse et al. (2020) show that the mentoring treatment in the bfp causally increases the prosociality of the treated low SES children and by thus mitigates the SES gap in prosociality. Prosociality is measured as an index consisting of altruistic behavior in three incentivized dictator games, responses to three items regarding trust, and five items on other-regarding behavior of the child reported by the child's mother (Kosse et al. 2020, 443-446). Through the composition of the prosociality measure, potential connections to political interests and attitude expression might appear apparent. Altruism in dictator

[15]There is also a strand of literature focusing on tertiary education and political participation, in which the results are mixed. For example, Berinsky and Lenz (2010) find that college education does not drive political participation in the United States. However, here they focus on college education, which takes place rather late in life, whereas we are looking at educational attainment in secondary schooling tracks, which happens during childhood and adolescence. Kam and Palmer (2008) also find that college education might not cause political participation, instead preadolescent and adolescent conditions that lead individuals to pursue higher education are also factors driving political participation. Therefore, they argue that research should also focus on childhood and adolescence to identify determinants of political participation, which is what we are doing in our project.

games, for example, is a good predictor of political participation, with higher altruism positively correlated with higher participation in the form of turnout (Fowler 2006, Fowler and Kam 2007). Saha (2004) finds that prosociality and political knowledge, attention to politics and political activism correlate. Research on trust and political participation is mixed, but is often found to at least some degree (and under varying circumstances) correlate positively with political participation (Kaase 1999, Hooghe and Marien 2013, Bäck and Christensen 2016). Trust is also positively correlated with certain political inclinations (Dohmen et al. 2012). It is reasonable to assume that the relationship between the components of prosociality and political participation might also hold for the propensity to express political attitudes.

With a back-of-the-envelope calculation, we provide suggestive evidence of how much of the treatment effect might be attributed to sending children to a higher school track or to fostering prosociality. We do so by analyzing the raw treatment effect and include in a stepwise process the outcome variables of Falk, Kosse, and Pinger (2020) and Kosse et al. (2020). Here we assume that this is a sequential process, i.e., going to a higher track school and higher prosociality have been affected previously by the treatment. However, we acknowledge that this is a strong assumption, since in fact we cannot rule out that both education/prosociality and political will expression could have been affected at the same period in time by the treatment. In the following we assume that school track attendance and prosociality are potential channels that are not themselves determined by political attitude expression. Table 2.5 displays this procedure for the *DK* responses in the left-right self-placement, where column (I) shows the treatment effect. In column (II) a dummy is included for the attendance of a higher school track, which has a negative and significant ($p<0.01$) coefficient, indicating that higher quality educational attainment is negatively correlated with the likelihood of expressing a *DK* on the left-right self-placement item. The comparison between columns (I) and (II) indicates a decrease in the magnitude of the treatment coefficient by approximately 9% (from -0.091 in column (I) to -0.083 in column (II)). Column (III) indicates the same magnitude of the treatment coefficient as in column (I) while controlling for standardized prosociality. Controlling for higher-school track at-

tendance and standardized prosociality jointly in column (IV) shows that approximately 9% of the treatment effect can be explained by the effects of attendance of a higher school track and prosociality.

Table 2.6 is analogous to Table 2.5 with the item nonresponse on the party vote question for the individuals who indicated that they would vote as the dependent variable. The estimation in column (I) shows that the treatment significantly reduces item nonresponses on the party vote item. Column (II) shows that this holds if we control for higher-school track attendance. The comparison between column (I) and column (II) shows that the inclusion of the higher-school track attendance variable in column (II) lowers the treatment coefficient by about 5% (from -0.081 in column (I) to -0.077 in column (II)). If we control for standardized prosociality in column (III), the treatment coefficient has the same magnitude as in column (I), indicating that prosociality is likely not affecting the treatment effect. Controlling for higher-school track attendance and prosociality jointly in column (IV) provides a fairly similar estimation as in column (II).

In Table 2.7 the dependent variable is the *DK* response to the redistribution item of Section 2.5.3. The analogous comparison shows that the treatment effect in column (II) is about 8% lower than in column (I), when we include the higher-school track attendance variable (from -0.098 in column (I) to -0.90 in column (II)). The comparison between columns (I) and (III) shows that including prosociality as an explanatory variable does not affect the magnitude of the treatment coefficient. The results in column (IV) show that when controlling for higher-school track attendance and prosociality, the treatment coefficient decreases by about 6% in magnitude from -0.098 in column (I) to -0.092 in column (IV).

In terms of how much of the variation in the dependent variables is explained by the explanatory variables in the models in Table 2.5, Table 2.6 and Table 2.7, including the higher school track variable in the model always increases the R^2 to a greater extent than including the prosociality variable.

The results in Table 2.5, Table 2.6, and Table 2.7 show that the treatment effects on the likelihood of expressing political attitudes are largely independent of school track atten-

Table 2.5: Channel of Treatment Effect on Left-Right Placement Don't Know

	Left-Right Don't Know			
	(I)	(II)	(III)	(IV)
Treatment	-0.091***	-0.083***	-0.091***	-0.083***
	(0.03)	(0.03)	(0.03)	(0.03)
Higher-School Track Attendance		-0.117***		-0.116***
		(0.03)		(0.03)
Std. Prosociality			0.020	0.019
			(0.02)	(0.01)
Constant	0.183***	0.243***	0.180***	0.240***
	(0.03)	(0.04)	(0.03)	(0.04)
Adj. R^2	0.021	0.063	0.023	0.064
N	360	360	360	360

Notes: The displayed variable is the average share across three waves of respondents of the treatment and low SES control group who answered "Don't Know" on the question "Many people use terms like 'left' and 'right' to denote different political attitudes. We have a scale here that runs from left to right. If you think about your political views, where would you place those views on this scale?". Respondents could state their political leaning on an 11-point Likert scale from left to right. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

dance and prosociality.[16] However, the results should be taken with caution and only as a descriptive analysis of potential channels.[17]

[16]The significant coefficients of the higher-school track attendance dummy in all three tables appear intuitive and reassuring, since all three items require a fairly high level of cognitive ability and knowledge.

[17]Another potential channel could be confidence. Bucher-Koenen et al. (2021) show that financial knowledge and confidence in one's knowledge, as expressed by *DK* responses, are correlated with participation in the stock market. Knowledge may not suffice if confidence and knowledge are complementary. Wolak (2020) finds that self-confidence is positively correlated with following politics and believing in one's ability to be influential in politics. Wolak and Stapleton (2019) find that the self-esteem of young adults is positively correlated with having a political party identification. However, unfortunately we do not have adequate data for confidence in this context and cannot test for it, but it might be a promising approach for future research to look at confidence.

Table 2.6: Channel of Treatment Effect on Item Nonresponse Party Vote

	Item Nonresponse Party Vote			
	(I)	(II)	(III)	(IV)
Treatment	-0.081**	-0.077**	-0.081**	-0.077**
	(0.04)	(0.04)	(0.04)	(0.04)
Higher-School Track Attendance		-0.062*		-0.062*
		(0.04)		(0.04)
Std. Prosociality			-0.013	-0.013
			(0.02)	(0.02)
Constant	0.226***	0.260***	0.227***	0.262***
	(0.04)	(0.04)	(0.04)	(0.04)
Adj. R^2	0.009	0.015	0.007	0.013
N	328	328	328	328

Notes: The dependent variable is the average share across three waves of respondents of the treatment and the low SES control group who provided an item nonresponse on the question "If there were a federal election next Sunday and you were eligible to vote, would you vote?". One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

Table 2.7: Channel of Treatment Effect on Redistribution Issue Don't Know

	Redistribution Issue Don't Know			
	(I)	(II)	(III)	(IV)
Treatment	-0.098*	-0.090*	-0.099*	-0.092*
	(0.05)	(0.05)	(0.05)	(0.05)
Higher-School Track Attendance		-0.157***		-0.157***
		(0.05)		(0.05)
Std. Prosociality			0.037	0.037
			(0.03)	(0.03)
Constant	0.350***	0.438***	0.346***	0.434***
	(0.06)	(0.07)	(0.06)	(0.07)
Adj. R^2	0.004	0.030	0.007	0.033
N	326	326	326	326

Notes: The dependent variable is the share of respondents of the treatment and the low SES control group who answered "Don't Know" on the question "Some want fewer taxes and contributions, even if that means fewer welfare state services; others want more welfare state services, even if that means more taxes and contributions. What is your position on this issue?". Respondents could state their attitude on an 11-point Likert scale ranging from "Fewer taxes and social security contributions, even if that means fewer welfare state benefits" to "More welfare state benefits, even if that means more taxes and contributions". One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

2.5.5 Discussion

So far, we have shown that treatment mitigates the socioeconomic gap in the likelihood of expressing political attitudes. By that we contribute to the literature by showing that the likelihood of expressing political attitudes is contingent on socioeconomic circumstances of an individual, but that it is also malleable. A childhood mentoring intervention can mitigate SES gaps with regard to political survey items. Currently, the literature on civic engagement and political engagement is focusing on motivation as a prerequisite for participation. However, motivation and expressing attitudes might be related.

To demonstrate that the construct of item nonresponses across the different dependent variables in this analysis is a coherent measure, we perform a principal component analysis (PCA). The PCA identifies a single common factor that explains 48% of the variance in the data (if we use the item nonresponse for the left-right self-placement, for the party vote, and for the redistribution item). This suggests that there is a strong relationship between the variables and that they are likely to measure a similar dimension.[18]

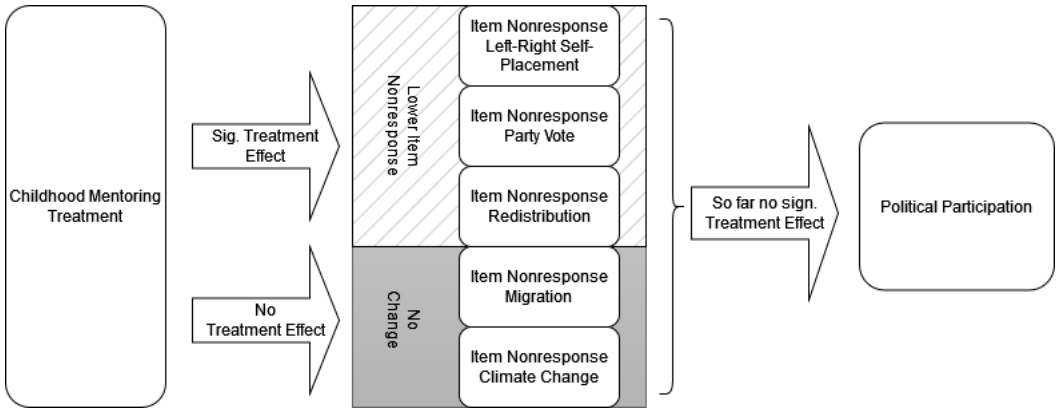


Figure 2.10: Mentoring Treatment, Item Nonresponses & Political Participation

Furthermore, to provide an overview of our overall findings of this project, Figure 2.10 visualizes that the mentoring treatment lowers item nonresponses to left-right self-placement, to the party vote question, and to the redistribution issue. It does not signif-

[18]If we additionally use the items for climate change and migration and perform a PCA, one factor with an Eigenvalue above 1 is identified that cumulatively explains 38% of the variation in the data.

icantly lower item nonresponses to the migration and the climate change issues. In the next step, we analyze whether the treatment also increases political participation.

Table B.10 in the Appendix displays the treatment effects and socioeconomic gaps of different items of political participation, ranging from types of participation that require little effort and resources (political interest and information seeking on political topics) to items that are more engaging and more costly with respect to resources (discussing politics and voting). We identify significant socioeconomic gaps in stated political participation between adolescents of low and high socioeconomic households. Adolescents from households with high socioeconomic status are more likely to state that they are interested in politics, that they seek information on political topics more often, that they discuss political items more often, and also that they are more likely to vote. The results in column (IV) indicate that about 82% of the adolescents in the low SES control group would vote, while nearly all of the adolescents in the high SES control group indicated that they would vote. This further underscores the potential difficulties that arise from a SES participation gap. However, we do not find a significant treatment effect on political participation. These results are to some extent in line with our previous results on attitude expression, since we first expect the likelihood of expressing political attitudes to change and only after having (strong) attitudes would we expect that to translate into political participation. Following the findings of Sondheimer and Green (2010), Holbein (2017), Holbein et al. (2022) we expect that the childhood intervention translates into higher political participation during adulthood. However, given that the adolescents in our sample are still relatively young and that political participation is something that often begins only after school education is over and in the early years of adulthood, we expect the treatment effect on *DK* expression to translate into participation only later in life. Another important aspect to mention here is that large parts of our surveys were conducted in the context of the COVID-19 pandemic (in 2020 and 2021), in which political participation was halted to some extent and low SES individuals were disproportionately stronger affected by adverse health outcomes, but also by financial and other resource constraints, which could also have hampered political participation. Reassuringly, we do not find a

clear pattern of the treatment shifting attitudes in a specific political direction (see section B.5 and section B.6 in the Appendix for treatment effects on party vote and attitudes). In addition, treatment does not significantly increase the importance attributed to certain political issues for the treated low SES children (see section B.7 in the Appendix).

2.6 Conclusion

So far, the likelihood of expressing political preferences and attitudes as a prerequisite for political participation has been neglected. We show that this likelihood is not equal across different levels of socioeconomic status. This holds for different cross-country samples of adults, but also for adolescents in the briq family panel data used in this project. Adolescents from low socioeconomic status households are less likely to state a political attitude and are more likely to provide an item nonresponse to political survey items than adolescents from high socioeconomic status households. Following research on how childhood interventions that foster noncognitive skills can have unanticipated positive long-term effects on political participation (Sondheimer and Green 2010, Holbein 2017, Holbein et al. 2022), we investigated the effects of a childhood mentoring program on the likelihood of expressing political attitudes. Our analysis shows that a mentoring intervention for children from low SES households can mitigate SES gaps in the likelihood of expressing political attitudes, in terms of nonresponses to survey items regarding left-right self-placement, intention to vote for a party, and an item on redistribution. This might translate into political participation later on.

A downside of item nonresponses, such as "Don't Know" or refusal to answer, is that the underlying motivation of the individual to provide such a response is unclear. We evaluated some possible reasons why the individuals in our sample provided item nonresponses. We argue that concealing socially undesirable attitudes is likely not the reason for an item nonresponse.

In addition, we assessed whether educational attainment or prosociality explain the treatment effect on lower item nonresponses among the adolescents in the treatment group.

However, the treatment effects on the likelihood of expressing political attitudes are largely independent of school track attendance and prosociality of the adolescents.

Future research has to show whether the treatment-induced increased likelihood of stating political attitudes in our sample ultimately translates into higher political participation in (early) adulthood and what specific mechanism might be at play.

Chapter 3

Is Right-Wing Populist Rhetoric Contagious? Evidence from Parliamentary Speeches in Germany

3.1 Introduction

For a long time since the end of World War II, far-right political rhetoric and ideas had been ostracized in Western democracies. Yet, the recent rise of right-wing populism across many countries has been accompanied by an increasing normalization and acceptability of such language in the political discourse (Guriev and Papaioannou 2022). Spreading extreme ideas by saying the previously intolerable has been part of the successful playbook of right-wing populists such as Viktor Orbán in Hungary, Jair Bolsonaro in Brazil or Donald Trump in the United States. Recent research has highlighted that such language has consequences and can have detrimental effects on political attitudes, social norms, and even violent behavior (Bursztyn, Egorov, and Fiorin 2020, Müller and Schwarz 2020, Müller and Schwarz 2021, Djourelova 2023). While a growing body of research has documented the consequences of such changes in acceptability, less work exists that investigates the mechanisms leading to the spread of right-wing populist ideas. We argue that

day-to-day exposure plays a key role in this normalization process and show how contact with right-wing populism makes politicians from mainstream parties adopt and converge to the language employed by the extreme right.[1]

In this project, we study how the first-time entry of a right-wing populist party, the *Alternative für Deutschland* (AfD), to the *Bundestag*, the federal parliament of Germany, affected the political rhetoric of incumbent politicians. Using techniques from natural language processing on several thousand parliamentary speeches, we construct different measures of rhetorical similarity to the language employed by right-wing AfD politicians. To induce variation in politicians' exposure to right-wing populists, we exploit a quasi-exogenous component in the allocation of parties to parliamentary committees. This allows us to analyze the causal effect of individual-level contact with AfD politicians on rhetorical similarity to right-wing political speech.

We find that politicians who are relatively more exposed to right-wing populist politicians in committees use language more similar to right-wing rhetoric. More precisely, comparing a politician with the highest to one with the lowest relative AfD exposure increases the cosine similarity to right-wing speech by 0.1 of a standard deviation, an effect size comparable to the average distance between the main centre-left SPD and centre-right CDU/CSU parties. Importantly, our difference-in-differences approach allows us to estimate this effect *within* individual speakers, highlighting how politicians converge to AfD rhetoric in response to higher exposure. Our findings imply that direct contact and confrontation with right-wing populism might exert a contagion effect on political language, even in a democracy that places a high social stigma on far-right ideology and rhetoric.

We corroborate this main result with two alternative measures of rhetorical similarity to right-wing populism: relatively higher AfD exposure also makes politicians use language more similar to extra-parliamentary speeches by the far-right AfD politician Björn Höcke, who is known to employ an extreme right-wing rhetoric. Furthermore, we find that speakers are more likely to use populist-specific phrases in their speeches as identi-

[1]Convergence in our framework refers to the habitualization of right-wing rhetoric in the political discourse by increasing usage of distinctively right-wing vocabulary but does not necessarily imply convergence in ideology.

fied in the German-language populist dictionary by Gründl (2022). Placebo tests suggest that the effect is specific to exposure to right-wing populism and does not extend to *any* interaction with other politicians of a different political ideology.

Finally, we explore why politicians might adopt right-wing language in their publicly displayed speeches. Building on insights from theories on communication accommodation by social psychologists (Giles and Ogay 2007), we hypothesize that such language use follows strategic motives with respect to electoral support. Indeed, our results show that the contagious effect of AfD exposure on political rhetoric increases with the intensity of local competition with the AfD in a politician's electoral district.

This study contributes to a number of active research agendas in economics and political science. First, our project adds to the rapidly growing literature on populism and political change, as recently reviewed by Guriev and Papaioannou (2022). Specifically, it aims to contribute to a better understanding of how populist politicians can influence political and social norms and, ultimately, affect behavior. A number of existing studies have shown how the electoral success of populism can increase the acceptability of extreme political rhetoric and erode social norms up to the point of fanning hate crimes (Schilter 2018, Albornoz, Bradley, and Sonderegger 2020, Bursztyn, Egorov, and Fiorin 2020, Müller and Schwarz 2020, Müller and Schwarz 2021, Hagemeister 2022, Romarri 2022). The strong connection between language and norms has been emphasized by Gentzkow, Shapiro, and Taddy (2019) who argue that changes in political rhetoric might contribute to differences in animus in the broader public. Consistent with this argument, Djourelova (2023) documents how even small differences in language alone can have wide-ranging impacts on political attitudes. Newman et al. (2021) find how the use of explicitly inflammatory speech by political elites can have an emboldening effect on expressing prejudiced opinions among the general public. In our setting, we study the spread of right-wing language *within* the political elite, potentially setting a precedent for the subsequent normalization and further dissemination to a wider audience.

Second, this study is also embedded in the literature on strategic policy responses of mainstream parties to rising populism (Meguid 2005). Using text data from party man-

ifestos, Abou-Chadi (2014) shows that parties' strategic reactions differ vis-à-vis radical right and green contenders. When radical right parties gain electoral support, convergence to anti-immigration positions follows suit, while in contrast parties de-emphasize ecological issues in response to green competitors. Similarly, work by van Spanje (2010) and Abou-Chadi and Krause (2020) provides evidence for a contagious effect on anti-immigration stances of mainstream parties across Europe in response to radical right parties' appearance. While the study by Hjorth and Larsen (2020) on Denmark demonstrates how accommodating strategies can be beneficial in terms of electoral success for left-wing parties, other studies find inconclusive or conflicting results on the effectiveness of such accommodation to radical right parties (Bale et al. 2009, Dahlström and Sundell 2012, Spoon and Klüver 2020, Krause, Cohen, and Abou-Chadi 2023). We extend existing research on party-level accommodation by studying rhetorical changes of individual politicians in the face of a newly emerging right-wing populism.

Third, we advance the existing literature on the effects of polarization and populism on parliamentary speech.[2] Previous studies of political speech have, among others, studied plenary debates in Sweden (Magnusson et al. 2018), the UK (Gurciullo et al. 2015), Norway (Fiva, Nedregård, and Øien 2021), or the European Parliament (Greene and Cross 2015). For the case of Germany, Lewandowsky et al. (2021) and Atzpodien (2022) explore how the entry of the AfD to the Bundestag and state parliaments, respectively, affects issue-specific polarization in plenary debates, with only the latter finding evidence for an increase in polarization over immigration. Similarly, Breyer (2022) analyzes parliamentary speeches in Austria and Germany and finds that both mainstream and populist parties use more populist rhetoric when in opposition than when in government. Whereas most of these studies only provide correlational evidence, a notable exception is the work by Valentim and Widmann (2021) that exploits variation in the timing of elections when AfD politicians enter German state parliaments. They find that politicians of other parties re-

[2]This also relates to a body of research studying the effects of populism on party manifestos. Rooduijn, de Lange, and van der Brug (2012) analyze whether populism has contagious effects on the party manifestos of non-populist established parties in Western democracies finding that manifestos of mainstream parties have not become more populist in recent years. Similarly, Han (2014) analyzes the potential impact of radical right-wing parties on policy positions of mainstream parties regarding multiculturalism and immigration.

spond by using more positive, rather than negative, emotional rhetoric in their speeches. Our study goes beyond existing approaches by exploiting a novel source of variation in individual-level exposure to right-wing politicians in parliament. This allows us to study within-speaker changes in political rhetoric in the same parliament and to shed light on the important role of day-to-day work interactions with right-wing colleagues. Furthermore, we go beyond sentiment analysis and party positions by employing both similarity and dictionary measures of distance to right-wing rhetoric.

Finally, our empirical approach adds to a rapidly growing literature in economics and political science that studies large-scale text data combining methods from natural language processing with the toolkit for causal inference of applied econometrics (Wilkerson and Casas 2017, Gentzkow, Kelly, and Taddy 2019, Gentzkow, Shapiro, and Taddy 2019, Hager and Hilbig 2020, Kelly et al. 2021, Widmer, Galletta, and Ash 2022). In particular, the addition of a novel source of variation due to a quasi-exogenous committee allocation rule may offer new research opportunities to study the effects of individual-level exposure to other politicians.

The remainder of this chapter is structured as follows: Section 3.2 provides background information on right-wing populism in Germany and discusses existing research on political rhetoric and strategic accommodation. Section 3.3 describes the data and construction of our measures of similarity to right-wing rhetoric. Section 3.4 introduces our identification strategy and explains how allocation rules to parliamentary committees in the Bundestag lead to quasi-exogenous variation in exposure to right-wing populists. Section 3.5 presents our main results as well as a number of robustness checks and discusses evidence on strategic reasons for rhetorical change. Finally, Section 3.6 concludes.

3.2 Background

3.2.1 Right-Wing Populism in Germany

Since the re-establishment of parliamentary democracy in 1949 after the end of the Nazi dictatorship, far-right parties had for a long time only played a minor role in (West) German politics. At the federal level, no far-right or right-wing populist party had managed to cross the 5% electoral threshold for parliamentary representation in the German Bundestag.[3] In the federal election of September 2013, a newly established right-wing party called *Alternative für Deutschland* (AfD, Alternative for Germany) fell just short of overcoming this threshold when it won 4.7% of the votes. Subsequently, the AfD continued to gain electoral support and established itself in several state parliaments, albeit undergoing an increasing radicalization and a strong shift to the right in the context of the 2015 European migration crisis. In the next federal election in September 2017, the AfD scored 12.6% of the votes and entered the Bundestag for the first time as the third largest parliamentary group and the strongest opposition party. The AfD's continued electoral success appears to be sustainable since it re-entered the Bundestag with a 10.3% of the vote share in the 2021 federal election. Furthermore, the AfD is currently (as of January 2023) represented in 15 of 16 German state parliaments, as well as in the European Parliament.

While having been founded in early 2013 in the context of the European debt crisis as a socially conservative party with soft eurosceptic views (Arzheimer 2015), the AfD veered increasingly to the right of the political spectrum and evolved into a populist radical right-wing party with a distinctively anti-immigration, anti-refugee and anti-Islam platform (Arzheimer and Berning 2019). This ideological shift to the far-right also manifested itself in a significant change in the language used by the AfD in speeches, party manifestos and social media posts with an increasing usage of words related to Islam,

[3] At the state- and municipal-level, a number of radical right-wing parties such as the *Sozialistische Reichspartei* (SRP, Socialist Reich Party) – which was banned by the German Federal Constitutional Court in 1952 – the *Deutsche Volksunion* (DVU, German People's Union), the *Republikaner* (REP, Republicans), and the *Nationaldemokratische Partei Deutschlands* (NPD, National Democratic Party of Germany) enjoyed geographically and temporarily limited electoral success that never proved to be sustainable in the long-run.

migration and the nation/Germany (Cantoni, Hagemeister, and Westcott 2020).[4] Parts of the AfD have also cooperated with the xenophobic PEGIDA ("Patriotic Europeans Against the Islamization of the Occident") movement that organizes anti-immigrant rallies mostly in East Germany. Prominent members of the AfD have held speeches at PEGIDA rallies, such as Björn Höcke, the de facto leader of the far-right faction within the AfD *"Der Flügel"* ("The Wing") that had been under surveillance by the *Federal Office for the Protection of the Constitution* for being considered a "secured extreme right-wing threat against the free democratic constitutional order" (Bundesamt für Verfassungsschutz 2020). Although *"Der Flügel"* was officially dissolved in 2020, both the main federal party itself, several state-level associations of the AfD as well as the AfD's youth organization *Junge Alternative* (JA, Young Alternative) continue to be classified by domestic intelligence agencies as a "subject of extended investigation to verify a suspicion" for suspected right-wing extremism (Bundesamt für Verfassungsschutz 2023). Furthermore, following classifications by political scientists (Hansen and Olsen 2018, Arzheimer and Berning 2019), we argue that the AfD can be considered as a populist radical right party in the spirit of Mudde (2007). According to this definition, populism among Western far-right parties can be understood as politicizing the "pure people" against the "corrupt elite", reflecting a dichotomous understanding of society.

3.2.2 Accommodation

As the success of the AfD in consecutive elections at various legislative levels appears to be enduring, the question arises of how existing "traditional" parties and their politicians react to and deal with this new populist competitor on their right. Initially, after the entrance of the AfD to the Bundestag and the different state parliaments, all mainstream parties tried to emphasize the formation of a *cordon sanitaire* against the AfD with

[4]This increasing radicalization of the AfD is furthermore exemplified by the fact that two of its three initiators (Bernd Lucke and Konrad Adam), two former party leaders (Frauke Petry and Jörg Meuthen) as well as multiple members in the Bundestag and state parliaments left the party claiming that it had become too radical.

the exclusion of any formal cooperation.[5] As documented by Heinze (2022), increasing signs of minor cooperation between established parties and the AfD as well as a turn toward *ad hoc toleration* could be observed at the municipal and the state level: while there has been no formation of official coalitions so far, mainstream parties have elected AfD candidates to parliamentary offices and debated motions by the AfD on a case-by-case basis. The arguably biggest violation of this non-cooperation policy happened in the federal state of Thuringia in February 2020, when Thomas Kemmerich from the liberal FDP was elected minister-president with the votes of the AfD and the conservative CDU. Kemmerich quickly had to step down amongst massive public outcry and resistance from the FDP and CDU federal leaderships. The case exemplifies the increasing difficulties parties and individual politicians are facing in response to the sustained electoral success of the AfD. Especially in some states in East Germany, where the AfD has managed to repeatedly score close to or more than 25% of the vote share, the formation of government coalitions as well as the functioning of parliamentary routines become increasingly difficult.[6] This raises the question whether both parties and individual politicians might resort to an *accommodation* strategy towards the AfD. In the following, we will discuss a number of existing theoretical frameworks and empirical findings for potential accommodating reactions to new – in particular radical right-wing and populist – parties.

Accommodation by Parties Since the AfD has shown to be able to repeatedly gain considerable shares of votes at different electoral levels, it is essential to examine the reactions of established parties to such an electoral threat. In particular, existing studies from political science have studied whether and how parties adopt their policy platforms in

[5]For example, the AfD has so far been denied by the other parties the election of a Bundestag vice-president from their ranks of which traditionally every parliamentary group received at least one position. While all of the six candidates presented by the AfD since 2017 failed to receive the required simple majority, they have increasingly scored more votes than the AfD itself has seats, hinting at an increased questioning of this formal exclusion practice among some MPs from other parties.

[6]In the 2017 federal elections, the AfD received the second-largest vote share with 21.9% in East Germany (vs. 10.7% in West Germany), even coming out as the strongest party in the state of Saxony (27.0%). Furthermore, the AfD received more than a fifth of the vote share in the state elections of Brandenburg 2019 (23.5%), Mecklenburg-Western Pomerania 2016 (20.8%), Saxony 2019 (27.5%), Saxony-Anhalt 2016 (24.3%) and 2021 (20.8%), and Thuringia 2019 (23.4%).

response to the rise of (populist right-wing) contenders. Using text data from party manifestos in Western European countries, Abou-Chadi (2014) shows that parties' reactions to radical right and green contenders differ: when radical right-wing parties are able to gain substantial electoral support, convergence to anti-immigration positions follows suit. If green parties gather stronger support, however, existing parties de-emphasize ecological issues. In a similar vein, the empirical findings by van Spanje (2010) point towards a contagion impact on entire party systems with respect to immigration policy positions in Western European countries following electoral success of the extreme right. Relatedly, Abou-Chadi and Krause (2020) show that mainstream parties in European democracies change their immigration policies if radical right parties enter parliament. With respect to the effectiveness of such strategies, a survey experiment in Denmark by Hjorth and Larsen (2020) highlights how accommodation by left mainstream parties can attract anti-immigration voters at the expense of pro-immigration voters. As former voters of left mainstream parties switch to other left parties without anti-immigration stances, this can in turn lead to an increased overall support for left parties. Accommodation towards right-wing positions might in this way foster the political prospects of the mainstream left in governing coalitions. However, other studies find conflicting or inconclusive results on the effectiveness of strategic accommodation to radical right parties (Bale et al. 2009, Dahlström and Sundell 2012, Spoon and Klüver 2020, Krause, Cohen, and Abou-Chadi 2023). Given that the AfD received substantial and continued support in elections at different levels in Germany, we might expect some form of reaction to this electoral threat among existing parties, in particular, as it has been shown that the AfD was successful in politicizing issues that were previously less controversial and, respectively, less politicized (Gessler and Hunger 2021, Engler et al. 2022, Hansen and Olsen 2022).

Accommodation by Individuals While much attention has been paid to strategic accommodation decisions by entire parties, the accommodating behavior of *individual* politicians in the face of newly emerging (populist right-wing) parties has not been thoroughly examined. One reason for this might be that due to the traditionally strong party disci-

pline – especially in parliamentary systems across Europe – it might seem that individual MPs have less room for potentially accommodating decisions in terms of voting behavior or the choice of policy platforms.

Therefore, in this project we study changes in the political rhetoric of individual politicians in publicly held parliamentary speeches. This has a number of advantages with respect to alternative sources available for text analysis: While party manifestos and policy papers are often the product of widespread cooperation among party members and the party leadership, parliamentary speeches are more directly attributable to individual politicians. Furthermore, party manifestos are typically only drafted for election campaigns, whereas parliamentary speeches are given on a regular basis, allowing us to more directly capture reactions to exposure to right-wing populists as well as take care of time-specific trends.[7] Parliamentary speech also differentiates itself from legislative text, since the latter is a very formal type of language with multiple individuals involved in the writing process, whereas speeches leave more room for individual rhetorical accentuation.

For our analysis of accommodation in parliamentary speech, we draw on the framework of *Communication Accommodation Theory* developed by Howard Giles (cf. Giles and Ogay 2007). This framework aims to predict and explain individual language adjustments as a function of creating, maintaining, or decreasing the social distance in personal interactions. In particular, communication accommodation theory consists of four main components: first, communication is context-specific and contingent on the receiver. For example, individuals communicate differently when talking to their friends than when talking to people they do not know. Second, language use is the result of habit formation and is subject to gradual change. Communication experience and social interactions shape the way language is used. Third, communication is used in part to indicate and signal their attitudes toward each other and can therefore be seen as a "barometer of the level of social distance" (Giles and Ogay 2007, 294). In this sense, *accommodation* is a movement toward and away from others by changing communicative behavior. Among the

[7] An advantageous feature of our setting is that plenary speeches are often given in the afternoon right after meetings of parliamentary committees, where politicians have been in direct contact with AfD colleagues as will be explained with more detail in Section 3.4.

different possible accommodative strategies speakers can use, the most frequent ones are *convergence* – adapting one's own communication to become more similar to others – and *divergence*, i.e., accentuating the differences between self and others. Fourth, accommodation entails benefits and costs. The benefit of accommodation is that greater similarity to the conversational partner might lead to greater approval, respect, or even direct social rewards from the accommodated speaker.

Taken together, in our context of parliamentary speeches in the German Bundestag, this framework implies that politicians face a trade-off: with increasing support for right-wing populism, they could choose *converging* accommodation toward right-wing rhetoric in order to win support from both the right-wing populist electoral base as well as the right-wing politicians themselves. The cost of this strategy could be an alienation from in-group politicians as well as the own electoral base, which might sanction right-wing populist accommodation with lower support. Alternatively, politicians might opt for *divergence* in accommodation towards right-wing political speech and choose a language that is clearly distinct from right-wing populist rhetoric. A benefit of this strategy might be increasing support from in-group politicians and the non-populist voter base, at the cost of losing voters attracted by right-wing populism, as well as lower potential of cooperation with right-wing populist politicians.

3.3 Data

3.3.1 Parliamentary Speech Data

Our empirical analysis is based on the *Open Discourse* dataset by Richter et al. (2020), a corpus of (plenary) parliamentary speeches in the German Bundestag. The dataset consists of all plenary protocols with the texts and metadata of speeches since the first session of the Bundestag in 1949, as well as demographic information on the speakers, such as their age, gender, occupation, and place of residence. For our analysis, we choose a time window around the first-time entry of the AfD in the German Bundestag after the federal

elections in 2017: our dataset contains all speeches of the 18th Bundestag between October 2013 and September 2017 as well as all speeches of the 19th Bundestag between October 2017 and December 2019.[8]

To render the data more suitable for our analysis, we perform a number of pre-processing steps in the following order: first, we exclude speeches by the President and Vice-Presidents of the Bundestag, the respective chairperson of the plenary sessions, or other speeches related to special functions, as they are likely to merely reflect administrative content. Second, we only keep speeches by speakers who are members of the Bundestag and were a member in at least one parliamentary committee during the analyzed period. This ensures a comparable setting for all analyzed speeches, since members of the government, members of the parliament in special functions, and external speakers might systematically differ in how and about what they speak. Third, we correct a number of corpus-specific text issues: we remove punctuation including characters specific to the German language and the context (e.g., –, used to denote speech breaks), as well as digits, other numerical characters, and stopwords. Fourth, and as the final pre-processing step, we lemmatize the remaining tokens. A more detailed description of all steps of data preparation and pre-processing, including the software packages employed, is provided in Appendix C.3.1 of Appendix C.3. Our final dataset consists of 39,310 speeches held by 931 different speakers over the course of 57 months between October 2013 and December 2019.[9]

[8]We decided to not use speeches after January 2020 until the end of the 19th Bundestag in September 2021, as this period was heavily influenced by the COVID-19 pandemic. In particular, as discussed in Section 3.4, our empirical strategy critically hinges on direct and repeated personal contact between MPs in parliamentary committees. However, with the outbreak of the pandemic, the Bundestag changed its rules of procedure to allow for the participation in committee sessions via electronic means of communication and reduced the necessary quorum of attending members to one quarter instead of the usual 50% majority (Deutscher Bundestag 2020). Therefore, we cannot directly compare the level and quality of personal interaction with AfD members in committees during this time period with the period prior to the COVID-19 pandemic.

[9]Figure C.1 in the Appendix shows the distribution of the speeches in our dataset over time and by party.

3.3.2 Committee Data

We gather data on Bundestag committees (*Bundestagsausschüsse*) from multiple sources: committee names and lists of committee members for the 18th Bundestag (2013-2017) and 19th Bundestag (2017-2021) were retrieved from the website of the Bundestag (Deutscher Bundestag 2022a). Data on committees in previous legislative periods were manually extracted from the "*Amtliches Handbuch des Deutschen Bundestages*" (Official Manual of the German Bundestag) (Deutscher Bundestag 1954-2017). Since the names of committees and their responsibilities for different policy areas might slightly change over legislative periods, we manually harmonized committees based on the committee names in the 19th Bundestag (2017-2021). Throughout all of our analyses, we only evaluate full membership in committees and disregard if MPs are deputy or stand-by members in committees as they do not regularly attend committee sessions.[10]

We merge the information on committee membership – that is constant within a legislative period – to the main speech-level dataset via the name and party affiliation of a speaker. In addition to the information on age, gender, residency, and occupation of MPs contained directly in the *Open Discourse* dataset of parliamentary speeches, we furthermore add constituency-level data on results in federal elections as well as which MPs stood as candidates in which electoral district obtained from Bundeswahlleiter (2022).

3.3.3 Measuring Similarity to Right-Wing Populist Rhetoric

Cosine Similarity Our preferred measure of the similarity of a speech to right-wing populist language is the standardized average cosine similarity to AfD speeches. More specifically, we construct the AfD cosine similarity score for speech i as the average over

[10]Several committees confirmed to us in writing that stand-by members attending committee sessions is the exception rather than the rule and that personal attendance is usually only observed in case of full members being sick or otherwise incapacitated.

all pairwise cosine similarities of speech i with all AfD speeches $j \in J$

$$\text{AfD Cosine Similarity}_i = \frac{1}{J} \sum_{j=1}^{J} \frac{\sum_{k=1}^{K} a_k b_k}{\sqrt{\sum_{k=1}^{K} a_k^2 \sum_{k=1}^{K} b_k^2}} \tag{3.1}$$

where a_k and b_k are *term-frequency inverse-document-frequency* (tf-idf) weighted counts of word k in speeches i and j. We use tf-idf weighting and calculate tf-idf scores for each speech because words with particularly high frequencies or extremely low occurrence are usually not informative.[11] These scores take into account both the frequency of words within a given speech as well as the relative frequencies of words with respect to the overall corpus of speeches. The tf-idf weighted count of word k in speech i is given by

$$a_k = tf(i,k) \cdot idf(k) = \frac{f_{k,i}}{\sum_{k \in i} f_{k,i}} \cdot ln \frac{I}{|\{i \in I : k \in i\}|} \tag{3.2}$$

where $f_{k,i}$ is the frequency of word k in speech i and I is the total number of speeches. For ease of interpretation and comparison, we standardize the cosine similarity measure with mean zero and standard deviation one. As speeches differ in length, we also calculate cosine similarities to AfD speeches using different sample restrictions on the minimum number of terms of a speech.

Speeches at Far-Right Rallies As a second outcome measure, we compute the average cosine similarity to speeches given by Björn Höcke at far-right rallies in 2015 and 2016.[12] Björn Höcke is the chairman of the AfD in the East German state of Thuringia and is the de facto leader of the increasingly influential hard-line nationalist faction within the AfD.[13] Höcke has repeatedly made headlines with a number of highly controversial statements which have been considered to exhibit racist and xenophobic views as well as elements of

[11] A more detailed description on the implementation can be found in Appendix C.3.2 of Appendix C.3.

[12] The four speeches were held in Erfurt, Thuringia, on September 30, 2015, October 28, 2015, and January 13, 2016, as well as in Magdeburg, Saxony-Anhalt, on January 27, 2016, and have a length of 1,574, 2,432, 1,653, and 1,686 terms, respectively. We have retrieved the texts from the transcripts of the speeches provided by Enderstam (2020).

[13] As described in Section 3.2.1, Höcke was the de facto leader of the far-right faction *"Der Flügel"* within the AfD that was put under surveillance by domestic intelligence services and later dissolved.

historical revisionism and fascism.[14]

The speeches held by Höcke in 2015 focused on asylum policy and the contemporaneous large influx of refugees and how, according to Höcke, the government was actively trying to harm the German population. In the January 2016 speeches, Höcke additionally exploits for political purposes the events of the 2015 New Year's Eve sexual assaults in Cologne. In his speeches, Höcke uses clearly identifiable patterns and elements of populism and nativism (Mudde and Kaltwasser 2018). Many statements allude that there is allegedly too much immigration to Germany that poses a threat to the security and culture of native Germans. For example, Höcke claims that "we have hundreds of thousands of illegal immigrants in hiding, we have millions of Muslims living in non-integrated parallel societies" (January 13, 2016) or that "the millions of young men who are now being let in will also be legalized by the Germany abolitionists of the *Altparteien* ("old parties", derogatory term for established parties") (September 30, 2015). In his speech on January 27, 2016, Höcke proclaims that "we want to live according to our values and customs and norms, we want to preserve our culture, we do not want to go back to the Middle Ages, we want to keep our country!". Another important topic of his speeches is the purported antagonism between the established political elites and the German people. In his speech on September 30, 2015, Höcke says about a local politician: "[...] because he stands up for the rule of the people, he can no longer stand the fact that the media-political pseudo-elite in this country tramples on the will of the people!". Some passages even contain barely veiled warnings about upheaval or revolt: "Sometimes one could think that our country is being deliberately plunged into chaos in order to establish an authoritarian order." (January 13, 2016). Overall, Höcke employs a radical and extremist language that constitutes a sharp departure from the established consensus on German political rhetoric.[15]

For each speech in our dataset, we calculate a measure of cosine similarity to the cor-

[14]For example, Höcke has criticized the Memorial for the Murdered Jews of Europe in Berlin as a "monument of shame" and called for "a 180 degree turnover" in Germany's remembrance of the Nazi era (Bennhold and Eddy 2019).

[15]The excessive use of words such as *"Volk"*, oftentimes linked to Nazi ideology and rhetoric, or derogatory terms such as *"Altparteien"* (old parties) or *"Asylorkan"* (asylum hurricane) provide other striking examples.

pus of Höcke speeches using the same approach as for the similarity to AfD speeches described above in Equation (3.1). This measure is intended to approximate similarity to a clearly far-right and arguably more extreme populist rhetoric outside of the specific form and norms surrounding parliamentary speeches.

Populism Dictionary As our third measure of similarity to right-wing rhetoric, we construct a populism score from the German-language populism dictionary provided by Gründl (2022). This dictionary is based on distinctively populist rhetoric in German-speaking social media posts by politicians and parties in Austria, Germany, and Switzerland. It scans the speeches on a sentence level and counts the sentences in which it identifies words or phrases which are identified as populist or point to populist rhetoric.[16] Again, we standardize the resulting outcome measure with mean zero and standard deviation one such that a higher relative number of sentences with populist phrases in a speech indicates a higher degree of populism. Of the 238 words and phrases contained in the dictionary, 98 appear in the analyzed corpus of parliamentary speeches. The majority of the phrases are, according to the classification of populist ideology from Gründl (2022), associated with anti-elitism (77), 16 are about sovereignty and five are attributed to people-centrism. Among the most frequent phrases are for example *"sogenannt"* ("so-called", 4,696 appearances), *"Bürokrat"* ("bureaucrat", 513), or *"manipuliert"*("manipulated", 141), but also more distinct words like *"undemokratisch* ("undemocratic", 82), *"Elite/Eliten"* ("elite/elites", 35) or *"Volksverräter"* ("traitor to the nation/people", 2) appear in our measure. A full list of terms found in our corpus is provided in Table C.7 of Appendix C.3, for the full list of dictionary items see Gründl (2022).

3.3.4 Validation

Before moving to our empirical analysis, we want to verify whether our similarity measures are able to accurately capture patterns of right-wing populist rhetoric. Figure 3.1

[16]For more details on the construction of the populist dictionary measure, see Appendix C.3.2 and Gründl (2022).

displays the average score by party for our three different measures of similarity to right-wing rhetoric. The upper panel of Figure 3.1 provides the party averages of the standardized average cosine similarity to the whole corpus of AfD speeches in the dataset. As expected, speeches by members of the AfD themselves have the highest cosine similarity compared to all other AfD speeches.[17] With respect to the other parties, we can roughly differentiate two groups: first, speeches by conservative (CDU/CSU), social-democratic (SPD) and liberal (FDP) members of the Bundestag are less similar to the AfD than AfD speeches themselves, with the CDU/CSU being the closest in rhetorical terms. The remaining parties, the Left party and the Greens, are furthest away in terms of rhetorical similarity to the AfD. This emerging pattern is reassuring since they mirror the ideological distribution from right to left in the Bundestag fairly well. In particular the fact that CDU/CSU is closest in terms of shared rhetoric and the Greens are the farthest from the AfD is much in line with how close these parties associate or distance themselves from the far-right.

The middle panel of Figure 3.1 is analogous to the upper panel, now showing the average cosine similarity by party of MPs' speeches to the speeches by Björn Höcke. The results are very similar, except that liberals and social democrats switch their positions. However, again, speakers from the Greens and the Left party are significantly furthest away in terms of rhetorical similarity to these rather extreme speeches than MPs of other parties.

Finally, the lower panel of Figure 3.1 displays the similarity to populist rhetoric in terms of the German-language populism dictionary by Gründl (2022). More specifically, it displays the frequency of the usage of distinctively populist words after standardization. The figure shows that, as expected, MPs from the AfD are by far most likely to use such populist words in their speeches.[18] With respect to the other parties, the emerging pattern

[17] When calculating the cosine similarity of one individual AfD speech, we leave out that speech from the sample of AfD speeches they are compared to in order to avoid mechanically higher cosine similarities.

[18] In the non-standardized scale, the AfD scores a mean populist dictionary measure of 0.99 (sd = 1.32), indicating that on average one sentence per speech contains a populist phrase. The values for the other parties are as follows: Left (mean = 0.55, sd = 0.94), SPD (mean = 0.39, sd = 0.75), CDU/CSU (mean = 0.39, sd = 1.32), FDP (mean = 0.36, sd = 0.70) and Greens (mean =0.32, sd = 0.69).

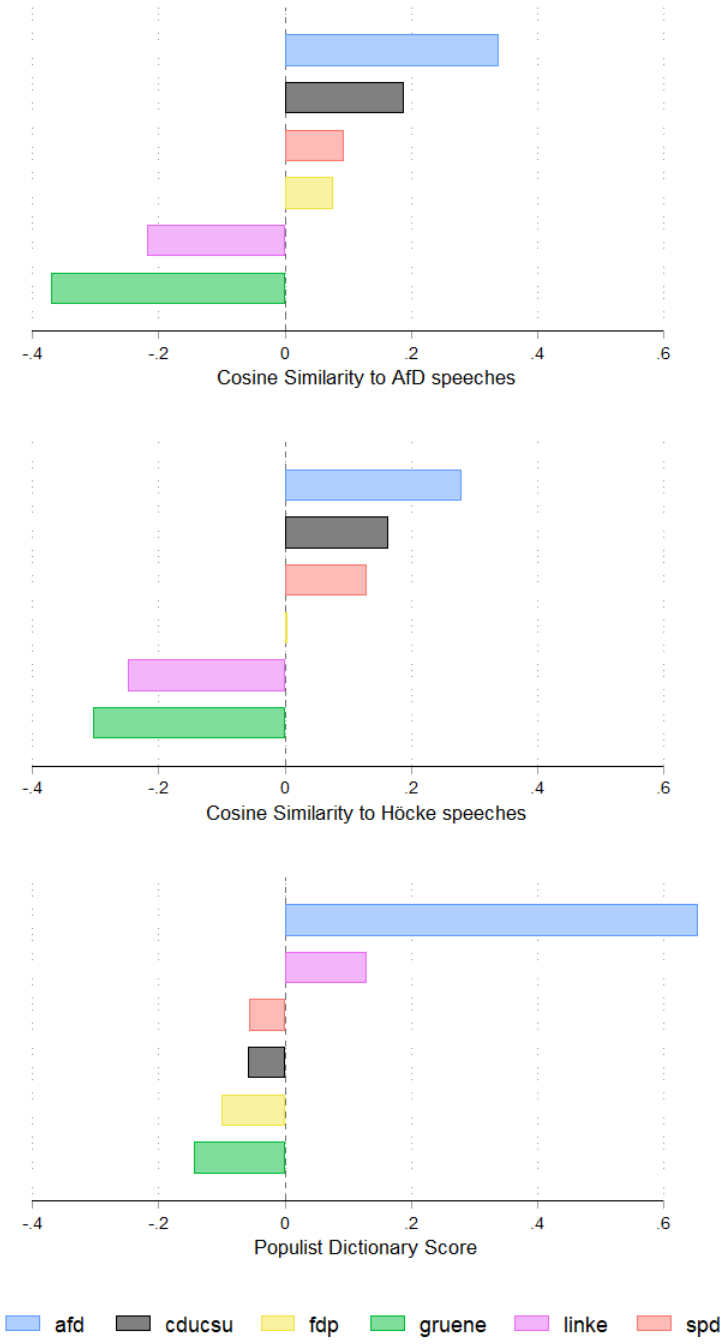


Figure 3.1: Similarity Measures by Party

All outcome variables have been standardized with mean 0 and standard deviation 1. For the construction of each outcome, the sample was restricted to speeches with a minimum length of 100 terms.

differs from the previous figures: speeches from the Left party are significantly less likely to use populist words but more so than the remaining other parties. Given that the Left party has been categorized by political scientists as a populist far-left party itself, this finding is not surprising (Rooduijn et al. 2019). Overall, the observed pattern is in line with theoretical expectations and shows that also the populist dictionary approach does well at identifying populist right-wing rhetoric.[19] At the same time, this shows that the populism dictionary approach deviates from our other cosine similarity measures of right-wing populist speech and seems to capture another aspect of AfD rhetoric.

In Figure 3.2, we furthermore explore the time dimension of the usage of right-wing rhetoric in our dataset and plot the development over time of our three similarity measures. As before, the upper panel displays the average standardized cosine similarity to AfD speeches in the Bundestag, the middle panel shows the average cosine similarity to Höcke speeches, while the lower panel shows the standardized scores from the populism dictionary provided by Gründl (2022). We display the party averages by month in which the speech was recorded, with the vertical dashed lines indicating the entry of the AfD in the Bundestag after the federal election in September 2017. Importantly, there seems to be a large variation over time in terms of how similar speeches are to right-wing rhetoric across all of our three measures, and most parties seem to move together in this aspect. This indicates important time-specific aspects in Bundestag speeches, e.g., due to which topics are more frequently discussed in a month or how polarized the debate at a certain time is. This underlines the need to account for such time-specific variation in our empirical analysis which we will address with the inclusion of month fixed effects and controls generated by a Latent Dirichlet Allocation (LDA) topic model.[20]

[19] In the original paper that analyzes texts from social media posts on Facebook and Twitter, Gründl (2022) finds that the AfD, followed by the Left party, has the highest score in terms of the populist dictionary. It is reassuring that we can reproduce this ranking for our different corpus of parliamentary speeches in the German Bundestag.

[20] Details on the implementation of the topic modelling are provided in Appendix C.3.3.

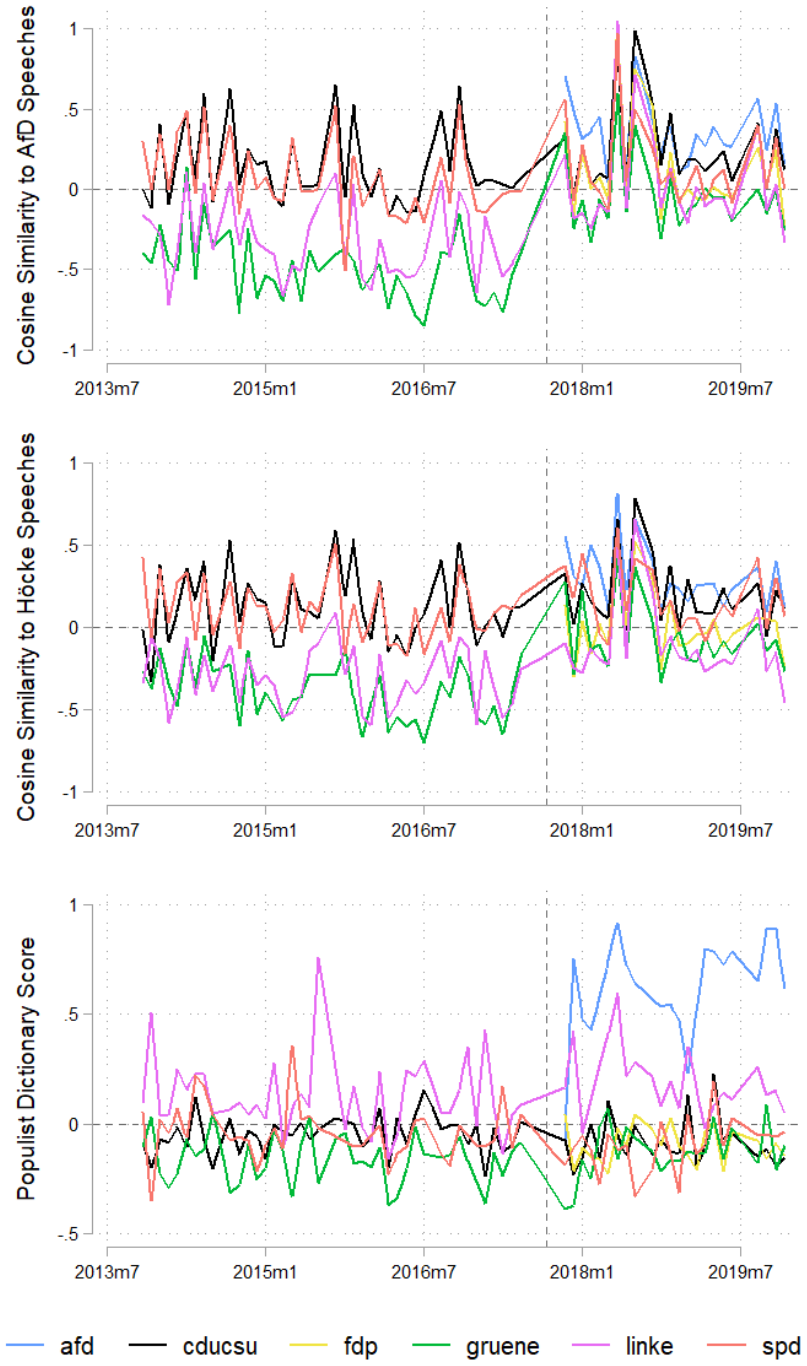


Figure 3.2: Similarity Measures Over Time

Excludes months with few speeches (n<30) due to summer breaks and around change of legislative period (August 2015, September 2017, October 2017, July 2019). All outcome variables have been standardized with mean 0 and standard deviation 1. For the construction of each outcome, the sample was restricted to speeches with a minimum length of 100 terms.

In a last step, we also formally study the correlation between our preferred measure of AfD cosine similarity and the other measures of similarity to right-wing rhetoric in Appendix Table C.1. We find that both a higher cosine similarity to Höcke speeches as well as a higher number of words from the populist dictionary significantly predicts a higher cosine similarity to AfD speeches. Importantly, both correlations remain highly significant when including speaker fixed effects, i.e., only comparing speech similarity measures within one speaker, as well as adding topic controls, month fixed effects and excluding speeches by AfD and FDP members, in line with our main empirical specification presented in Section 3.5.1.[21] Overall, the strong correlation between these three very differently constructed measures gives us confidence that we can validly identify similarity to right-wing or populist rhetoric.

3.4 Identification Strategy

According to our main hypothesis, the new presence of the AfD in the Bundestag and the active participation of right-wing populist politicians in parliamentary work might influence the language and rhetoric used by other politicians. However, simple comparisons of rhetorical similarity to the AfD across time or between parties are unlikely to identify the *causal* effect of exposure to the AfD due to a number of potentially serious endogeneity concerns. For example, the salience of different topics, especially those related to right-wing electoral success such as migration, might change over time and could simultaneously drive rhetoric similarity measures which would invalidate a simple comparison of speeches before and after the entry of the AfD.

We try to overcome such concerns by exploiting variation in *individual-level* exposure to the AfD within the parliamentary committees of the Bundestag (*Ausschüsse*). Using this novel source of variation has a number of advantages: conceptually, we study personal exposure to right-wing colleagues in repeated encounters in the context of the day-to-

[21] We exclude speeches by the FDP as it was also not represented in the Bundestag in our pre-treatment electoral period from 2013 to 2017.

day work routine of members of parliament. In line with the ideas of communication accommodation theory discussed in Section 3.2, we thereby focus on the impact of human interactions on language and political rhetoric. In terms of the empirical analysis, using this source of variation across different politicians *within* the same parliament allows us to hold a number of potential confounders constant that relate to the Bundestag overall. This feature is a particular advancement compared to other studies that have exploited variation *between* different parliaments in terms of exposure to right-wing populists (Atzpodien 2022, Valentim and Widmann 2021).

In the following, we first provide a brief institutional description of the central role of committees for the functioning of the German Bundestag. Second, we provide a description of the mechanism that is used for the allocation of committee seats to different parties in parliament. We show that this allocation mechanism yields arguably exogenous variation in party-level exposure to the AfD that we can exploit to study a potential individual-level contagion effect of right-wing populism on political rhetoric.

3.4.1 Committees in the Bundestag

The Bundestag is the federal parliament of Germany and the only directly elected body on the national level. Federal elections take place every four years and the 598 nominal members of the Bundestag are elected by a mixed-member proportional representation voting system. This system implies that every voter has two votes: with the first vote, also called constituency vote, voters elect 299 MPs as the winners in single-member constituencies via simple majority. With the second vote, also called party list vote, the remaining MPs are elected from closed state-wide party lists in all 16 German states. The share of second votes determines the share of seats a party receives in parliament. As parties may win more constituencies with the first vote than their second vote share would assign them, a complex allocation system that adds compensatory seats (*Ausgleichsmandate*) to outweigh such surplus seats (*Überhangmandate*) makes the Bundestag typically larger than the 598 ordinary seats. During the 18$^{\text{th}}$ legislative period after the 2013 election, there were 631

elected members of parliament, while during the 19th legislative period following the 2017 election, the Bundestag consisted of 709 elected MPs.

Political scientists have classified the Bundestag as predominantly exhibiting characteristics of a so-called *working parliament* (*Arbeitsparlament*) in which most legislative work is done in topic-specific specialized parliamentary committees which prepare legislation proposals that are then submitted to the plenary for approval (Ismayr 2001, 167; Schmidt 2021, 148).[22] Therefore, the time spent on debating, working and voting inside committees typically largely outweighs the time spent on debating and giving speeches in the plenary sessions.[23] Committees are hence the central place for policy-making and inter-party political discussions and exchanges in the Bundestag.

While the German constitution prescribes that Bundestag committees on foreign affairs, defence, petitions and European Union affairs must be formed, the exact number and specializations of the committees are not determined and decided upon by the members of the Bundestag for each legislative period. Typically, the topical specialization of committees mirrors those of the federal ministries and their competencies. As a result, the number and specialization of committees varies from one legislative period to the other, reflecting changes in the relevance and overlapping of different policy areas.[24]

Usually, however, committee meetings are not public and, therefore, speech transcripts are not available.[25] In contrast, the plenary sessions of the Bundestag are the most visible arena of parliamentary work where members of parliament hold speeches that are

[22]The opposing type of parliamentary work is the so-called *speech parliament* (*Redeparlament*) where the plenary session is the main arena in which debates are held and legislative decisions are made. The canonical example for such a *speech parliament* is the House of Commons of the United Kingdom, while the United States Congress is seen as the prototype of a *working parliament*.

[23]This priority of committee work can be quantified by the fact that there have been almost ten times as many committee meetings (38,731) than plenary sessions (4,106) from 1949 to 2017 as recorded in the Bundestag statistics compiled by Feldkamp (2018, 214-216).

[24]For instance, the War Victims and Repatriates committee (*Ausschuss für Kriegsopfer- und Heimkehrerfragen*) played an important role in immediate post-WWII politics but the issue is no longer relevant today and the committee does not exist anymore. On the other hand, the Digital Agenda committee (*Auschuss für Digitale Agenda*), that was for the first time established after the 2013 election, represents the emergence of a new policy area.

[25]There are some exceptions when committee meetings are public, often due to a hearing that deviates from standard committee procedure. Committees gather information from external experts on certain legislative proposals, so the focus is on speeches given by invited experts and not on speeches given by MPs who rather ask questions.

livestreamed and transcribed. Hence, MPs are well aware that their speeches will be visible to other members, their own party and its leadership as well as the media and, ultimately, voters. Both plenary sessions and committee meetings are typically held in the same week when the Bundestag is officially *"in session"* which occurs at least in 20 weeks per year and for which MPs usually travel to and work in their Berlin offices located in the *Reichstag* and surrounding buildings. Usually, committee meetings are scheduled for Wednesday morning and plenary sessions are held on Wednesday afternoon (Deutscher Bundestag 2022b). This scheduling sequence gives us confidence that plenary speeches might at least to some degree be given in reaction to debates in the preceding committee meetings and, hence, might give room for exerting an influence on the rhetoric used by speakers.

3.4.2 Allocation of Committee Seats

The size of committees, i.e., the number of members that have full voting rights, is not fixed but depends on the importance of their respective policy agenda and the amount of legislative work involved. The different parties represented in the Bundestag jointly decide on the size of committees at the beginning of each legislative period when committees are formed. In the main periods of interest in our empirical analysis, there exist 23 main committees in the 18th Bundestag (2013-17) that have between 14 and 46 members, while in the 19th Bundestag (2017-21) there are 24 main committees with 14 to 49 members.[26]

[26]Table C.3 and Table C.4 in the Appendix display the name and size of the committees in the 18th and 19th Bundestag, respectively, as well as the absolute number of seats assigned to each party in a given committee. We exclude a number of non-standard committees from our analysis: the committee on election audit (*Wahlprüfungsausschuss*) is excluded as it has the specific task of auditing whether the elections for the Bundestag and the European Parliament were conducted lawfully and without intervention. The committee meets significantly less often than other committees and consisted of only 9 members in both periods of interest. The mediation committee (*Vermittlungsausschuss*) is the common committee between the Bundestag and the Bundesrat, which is the parliamentary body representing the 16 German states at the federal level. Its main function is to mediate between the interests of the Bundestag and the Bundesrat in case of disagreement in the legislative process. As this committee consists of both members from the Bundestag and Bundesrat, we exclude it from our analysis. We also exclude the joint committee (*Gemeinsamer Ausschuss*) as its only function is to work as an emergency parliament in case of a state of defence and does not regularly meet. Furthermore, we exclude sub-committees (*Unterausschüsse*) that can be formed within the main committees, as well as five investigative committees (*Untersuchungsauschuss*) that are temporarily formed *ad-hoc* to investigate specific cases of potential misconduct by the government. Finally, we also exclude the

Once the absolute size of committees is established, seats are allocated to parties on the premise of ensuring proportional representation, i.e., the share of seats of a party in a given committee should equal the share of seats this party has in the Bundestag. As the number of available seats in a committee is finite and relatively low, a perfect proportional representation is, however, not always attainable and committee shares might deviate from the share of seats in the plenary. In order to ensure a fair representation and, in particular, to avoid discrimination against smaller parties, the Bundestag uses the *Sainte-Laguë/Schepers* rule for the allocation of committee seats to parties.[27] The rule is based on the idea of iteratively calculating an allocation quotient from the following formula: for each party p and its already allocated number of seats s, an allocation quotient Q is calculated based on the share of the party's seats in parliament V:

$$\mathrm{Q}_p = \frac{V_p}{2s_p + 1} \tag{3.3}$$

An iterative procedure that starts with $s = 0$ for all parties allocates a seat to the party with the highest quotient. If more than one party has the highest quotient, the seat is randomly allocated to one party rather than the other. After the allocation of the seat, the quotient is recalculated. The process ends when all available seats in a committee have been allocated.

Figure 3.3 visualizes how the *Sainte-Laguë/Schepers* rule leads to plausibly exogenous variation in the share of seats assigned to a party, here for the example of the AfD. Panel (a) shows the allocated number of seats to all parties by the *Sainte-Laguë/Schepers* rule based on different total committee sizes. Panel (b) visualizes the change in the allocated share of AfD members for differently sized committees. There are a number of distinct jumps in the share of AfD members when the marginal additional seat in a committee is allocated to the AfD. The dashed vertical lines indicate the number of seats in existing

two temporary main committees (*Hauptausschuss*) that were formed for one month in 2013 and two months in 2017/18 as a stand-in committee until the constitution of the main committees while negotiations for the formation of a coalition government were on-going.

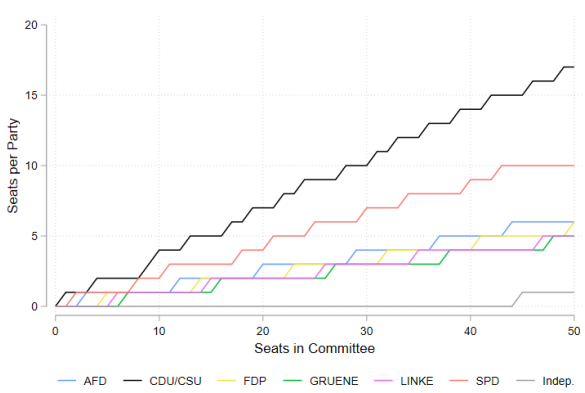
[27] The rule has been applied for the allocation of committee seats in the Bundestag since 1980, and since 2009 it also determines the allocation of plenary seats in the Bundestag as well as the allocation of the German seats in the European Parliament.

committees in the 2017-2021 legislative period. Hence, we can observe that there were committee sizes where the AfD was "lucky" in the sense of being overrepresented due to having just gained the next additional seat and in areas where the AfD was "unlucky", respectively. Panel (c) shows the actual distribution of speeches held after 2017 in our sample by the respective share of AfD members in a speaker's committees. Reassuringly, we find substantial variation in relative AfD exposure in our speech sample.[28]

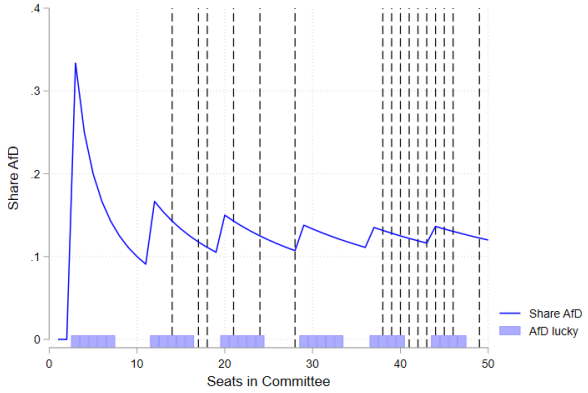
The share of AfD members in a given committee of a certain size therefore arguably features an exogenous component.[29] Two politicians in committees of comparable size might therefore have a different relative exposure to far-right AfD politicians. For example, a politician represented in the *Digital Agenda* committee (with a total of 21 members) has to work on a regular basis with three colleagues from the AfD, implying a relative share of 14.3% AfD members. In contrast, a politician in the committee for *Culture and Media Affairs* (with a total of 18 members) faces only two AfD members in her committee meetings with a relatively lower share of 11.1% AfD members. Table C.4 in the Appendix summarizes the distribution of AfD members across all Bundestag committees, exhibiting variation in the relative share of AfD members in committees of different size. From the perspective of politicians of other parties, this implies variation in the exposure to right-wing populist politicians and their ideology in their day-to-day parliamentary work. In the following empirical analysis, we will exploit this variation to analyze the effect of this exposure on the rhetorical similarity to right-wing populism in parliamentary speeches given by these politicians.

[28]Note that the empirical mean of 12.97% of AfD committee members in our speech sample corresponds exactly to the relative share of the 92 AfD members among the 709 total Bundestag MPs.

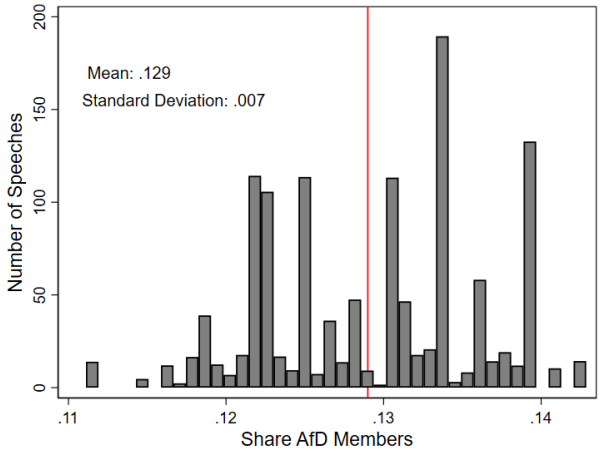
[29]In the spirit of a regression discontinuity design, one could assume that politicians in committees are not able to manipulate the size of committees to be either just to the right or just to the left of a jump in the share of AfD members function. As shown in Figure C.2 in the Appendix, relative committee sizes are quite stable over time and, in particular, there seems to be little movement in relative committee sizes between the 2013-2017 and 2017-2021 legislative periods that are of interest for our empirical analysis.



(a) Absolute Number of Members



(b) Share of AfD Members



(c) Distribution Share of AfD Members

Figure 3.3: Sainte-Laguë/Schepers Rule

Panel (a) shows the absolute number of members for each party for different sizes of committees according to the *Sainte-Laguë/Schepers* rule for the 2017-2021 legislative period. Panel (b) shows the assigned share of AfD members based on the *Sainte-Laguë/Schepers* rule for different potential sizes of committees. Shaded ranges on the x-axis indicate seat numbers for committees that are midpoints between seat numbers where the AfD gains an additional seat according to the *Sainte-Laguë/Schepers* rule. Dashed vertical lines indicate the total number of seats in existing committees. Panel (c) shows the distribution of the associated share of AfD committee members for all speeches in our sample held after September 2017.

3.5 Results

3.5.1 Main Results

Our goal is to estimate the causal effect of individual exposure to radical right-wing AfD politicians on similarity to right-wing populist rhetoric. However, a simple comparison of the relative committee exposure to AfD members on speech similarity might suffer from selection bias. As we have previously argued, the committee allocation procedure leads to variation in the share of seats assigned to a party, and hence individual-level variation in exposure to the AfD; yet, individual assignment of politicians to committees might still be endogenous. For example, parties could strategically select politicians for committees with relatively higher AfD presence due to some individual characteristics such as ideological solidity or distance to right-wing populism.[30]

To address such endogeneity concerns, we exploit that our data comprises speeches before the AfD's entry into the Bundestag. We run a difference-in-differences regression comparing speeches of the *same* politicians before and after being differentially exposed to right-wing politicians. In particular, we estimate the following regression model:

$$Similarity_{ist} = \beta\, Share\, AfD\, Members_{s(i)} \times Post_t + \boldsymbol{X_i\gamma'} + \delta_t + \phi_s + \epsilon_{ist} \tag{3.4}$$

where $Similarity_{ist}$ is one of our measures of similarity to right-wing rhetoric for the plenary speech i held by speaker s at time t.

Our main explanatory variable $Share\, AfD\, Members_{s(i)}$ measures the share of AfD politicians among all full members of the committee of which politician s is a full member in the 19$^{\text{th}}$ Bundestag.[31] $Post_t$ is a dummy variable equal to 1 if plenary speech i was held

[30] In Table C.5 in the Appendix, we empirically investigate such selection and regress the share of AfD committee members on a number of observable individual characteristics of MPs. We find that female and older MPs tend on average to sit in committees with relatively fewer AfD members. Interestingly, results in column (2) suggest that electoral competition with the AfD – as measured by the absolute vote share and relative distance to the AfD in an MP's electoral district in the last federal election – does not seem to predict assignment into committees. Nevertheless, these findings confirm that our empirical strategy needs to account for potential individual-level selection into committees.

[31] If a politician is a full member in multiple committees, we assign her the average share of AfD members across all respective committees.

after the entry of the AfD in September 2017. As shown in Figure 3.2, there is substantial variation over time in rhetorical similarity, for which we account by including month fixed effects δ_t as well as a vector $\boldsymbol{x_i}$ controlling for 20 topics generated by a Latent Dirichlet Allocation (LDA) topic model.[32] Crucially, we also include speaker fixed effects ϕ_s that control for all time-invariant factors related to an individual speaker. The inclusion of this relatively demanding set of 437 speaker fixed effects should alleviate concerns relating to unobserved characteristics influencing political speech and selection into committees. Throughout all specifications, we cluster standard errors on the committee times electoral period level. Our main coefficient of interest is given by β: a positive and significant coefficient would indicate that more AfD members in a given committee increase similarity to right-wing rhetoric. However, a negative effect would suggest that direct exposure to AfD politicians might lead members of other parties to rhetorically distinguish themselves more from right-wing speech.[33]

Table 3.1 presents our main results from estimating the regression specification as shown in Equation 3.4. Column (1) shows the effect on our preferred measure of rhetorical similarity, the standardized average cosine similarity to all AfD speeches, by comparing speeches given by the *same* politicians before and after the entry of the AfD into the Bundestag. Furthermore, topic controls and month-fixed effects assure that the estimated effect is not confounded by time- or topic-specific trends in plenary speeches. We obtain a positively estimated coefficient for β significant at the 10 percent level, implying an increase in similarity to AfD rhetoric with higher exposure to right-wing politicians. The magnitude of the effect is non-negligible: comparing a politician in a committee with the highest to one in a committee with the lowest relative AfD exposure (corresponding to an increase in the share of AfD members by 0.03 as indicated in Table C.2) increases the AfD cosine similarity by 0.1 (3.356×0.03) standard deviations. To put this into perspec-

[32] Details on the implementation of the topic modelling are provided in Appendix C.3.3.

[33] Note that β is not mechanically driven by AfD speeches. AfD speeches will both feature a higher AfD cosine similarity and tend to come from politicians sitting in committees with high shares of AfD members. However, the difference-in-differences design with speaker fixed effects requires that speeches included in our analysis come from politicians who were present in both legislative periods, before and after the entry of the AfD. Thus, the sample of speeches in our design excludes speeches from AfD politicians (as well as speeches by the FDP who also only re-entered parliament in 2017).

tive, this increase corresponds roughly to the 0.09 difference in the average standardized AfD cosine similarity between speakers of the center-left social democratic SPD and the center-right CDU/CSU as shown in the upper panel of Figure 3.1.

Table 3.1: Main Results

	AfD Similarity	Höcke Similarity	Pop. Dictionary
	(1)	(2)	(3)
Share AfD × Post	3.356*	3.868***	4.194**
	(1.932)	(1.321)	(1.630)
Topic Controls	✓	✓	✓
Month FE	✓	✓	✓
Speaker FE	✓	✓	✓
Observations	17,383	17,383	17,383

Notes: Table reports coefficients and standard errors from linear regressions as laid out in Equation 3.4. The independent variable of interest is the interaction between the (average) share of AfD members of all committees in which a politician is a full member and an indicator whether the speech was recorded in the 19th German Bundestag (2017-2021). The dependent variables are as follows: (Column 1) the standardized average cosine similarity to AfD speeches after pre-processing and tf-idf vectorization; (Column 2) the standardized average cosine similarity to speeches by Björn Höcke after pre-processing and tf-idf vectorization; (Column 3) the standardized number of sentences with words from the German-language populist dictionary by Gründl (2022). Topic controls are derived from a 20-topic LDA model. The sample comprises plenary speeches by members of the German Bundestag held between October 2013 and December 2019 with a minimum length of 100 terms from parties that were represented throughout the whole period (CDU/CSU, SPD, The Left, and Alliance90/The Greens). Standard errors clustered at the committee times electoral period level are reported in parentheses: $* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$.

When looking at alternative measures of rhetorical similarity to right-wing speech, we find very comparable results: Column (2) shows a positive and strongly significant effect of higher committee exposure to the AfD on the average cosine similarity to extra-parliamentary speeches held by extreme right-wing AfD politician Björn Höcke in the context of anti-immigration AfD rallies. Column (3) reports a likewise positive effect on the number of sentences with populist words as classified in the German-language populism dictionary by Gründl (2022). As all outcomes were standardized to allow for easier

comparison of magnitudes, we can further note that the estimated effect sizes are reassuringly similar.

Taken together, our main results reported in Table 3.1 provide evidence for a contagious effect of direct exposure to far right-wing politicians on using similar language in public speeches. Notably, this effect can even be detected *within* politicians who seem to adapt their rhetoric once they have to deal with more extreme right-wing politicians in their daily committee work after 2017. Furthermore, the change in language is not only detectable in similarity to rhetoric used by the AfD itself in parliamentary speeches, but also extends to arguably more extreme rhetoric, as showcased by the similarity to Höcke speeches, and the usage of distinctively populist vocabulary.

3.5.2 Robustness Checks

FDP Placebo So far our results have suggested a contagious effect of exposure to far-right politicians on other MPs' rhetoric. Yet, it remains unclear to what extent such contagion is specific to (right-wing) populism or whether politicians generally adopt their language use in reaction to any increased exposure to newly elected colleagues, independent of their ideology. The specific setting of the German Bundestag provides us with a useful placebo exercise to shed more light on this question: at the same time as the AfD was elected into parliament for the first time at the 2017 federal elections, also the liberal non-populist FDP re-entered the Bundestag after not having been represented in the 18th legislative period between 2013 and 2017.[34] This allows us to re-estimate the baseline regression framework presented in Equation 3.4 but changing the "treatment" variable to measure the intensity of personal exposure to non-populist FDP instead of populist AfD politicians in committees.

The results of this placebo-style exercise are presented in Table 3.2. Columns (1) to

[34]The FDP (*Free Democratic Party*) is the main liberal political party in Germany and typically associated with the center or center-right of the political spectrum. The FDP has been a traditional established force of the German party system since the end of World War II, having been represented in the Bundestag since 1949 and having served repeatedly as junior coalition partner in both CDU/CSU-led (1949–1956, 1961–1966, 1982–1998, 2009–2013) and SPD-led (1969–1982, since 2021) governments. In 2013, it failed to meet the 5% electoral threshold for parliamentary representation for the first time in its history, but was reelected in 2017.

Table 3.2: FDP Placebo

	AfD Similarity	Höcke Similarity	Pop. Dictionary	FDP Similarity (res.)
	(1)	(2)	(3)	(4)
Share FDP × Post	4.189	1.716	-1.432	-0.583
	(2.732)	(1.481)	(1.625)	(0.577)
Topic Controls	✓	✓	✓	✓
Month FE	✓	✓	✓	✓
Speaker FE	✓	✓	✓	✓
Observations	17,383	17,383	17,383	17,383

Notes: Table reports coefficients and standard errors from linear regressions as laid out in Equation 3.4. The independent variable of interest is the interaction between the (average) share of AfD members of all committees in which a politician is a full member and an indicator whether the speech was recorded in the 19th German Bundestag (2017-2021). The dependent variables are as follows: (Column 1) the standardized average cosine similarity to AfD speeches after pre-processing and tf-idf vectorization; (Column 2) the standardized average cosine similarity to speeches by Björn Höcke after pre-processing and tf-idf vectorization; (Column 3) the standardized number of sentences with words from the German-language populist dictionary by Gründl (2022); (Column 4) the standardized average cosine similarity to FDP speeches after pre-processing, tf-idf vectorization and residualizing on standardized average AfD cosine similarity. Topic controls are derived from a 20-topic LDA model. The sample comprises plenary speeches by members of the German Bundestag held between October 2013 and December 2019 with a minimum length of 100 terms from parties that were represented throughout the whole period (CDU/CSU, SPD, The Left, and Alliance90/The Greens). Standard errors clustered at the committee times electoral period level are reported in parentheses: $* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$.

(3) show the effect of relatively higher FDP exposure on our three measures of rhetorical similarity to right-wing AfD speeches, analogous to the structure of Table 3.1. We do not find any of the estimated coefficients to be significantly different from zero. Column (4) now additionally tests whether relatively higher FDP exposure in committees also makes other politicians use more similar rhetoric to the FDP. In order to avoid that FDP similarity partially absorbs similarity to the AfD as well, we first residualize average FDP cosine similarity on average AfD cosine similarity. Intriguingly, when regressing this residualized FDP cosine similarity on the share of FDP committee members, we also do not find a statistically significant effect with the coefficient being close to zero. The absence of any effect for FDP exposure seems to suggest that the observed contagion effects are indeed specific to being exposed to (right-wing) populist rhetoric and ideology.

General Accommodation We can further explore the idea that politicians – consciously or unconsciously – accommodate their language in general to *any* exposure and interac-

tion with colleagues of a different ideology who are using distinct rhetoric. We therefore extend our difference-in-differences framework to analyze potential contagion effects for all parties represented in the Bundestag. The AfD and FDP (re-)entered the Bundestag in September 2017, meaning that previous AfD and FDP exposure in committees was zero. For the other parties, our treatment captures the *change* in relative committee exposure between electoral periods.

The main coefficients from this exercise are visually represented in Figure 3.4.[35] Most importantly, we find that *only* direct exposure to right-wing populist AfD members significantly affects the rhetoric employed by politicians of other parties slanting the language into the AfD's direction. On the other hand, relatively higher exposure to politicians of the established parties such as the CDU/CSU and SPD does not lead MPs to adopt their rhetoric.[36] The remaining cases of the Green and Left party are insightful as speakers from these parties exhibit the most distinctive rhetoric with respect to the AfD as can be seen in Figure 3.1. We might expect that contagion effects are especially salient for parties using more distinct language from the average Bundestag politician. However, we also do not find significant effects on rhetorical similarity with higher exposure to committee members from these parties. This contributes to our assessment that the estimated contagion effects seem to be specific to exposure to right-wing populism.

Speech Length In our baseline specification, we restricted our sample to speeches with a minimum length of 100 terms in order to select sufficiently long speeches which should better capture distinctive right-wing rhetoric used by the AfD.[37] In Table 3.3 we therefore repeat our main difference-in-differences analysis as laid out in Equation 3.4 for different restrictions on the minimum number of terms in a speech. Reassuringly, the estimated coefficients remain largely stable for all three employed rhetorical similarity measures.

[35]The corresponding regression results can be found in Table C.6 in the Appendix.

[36]In the case of the FDP, in difference to the results presented in Table 3.2 we do not residualize our results on AfD similarity, as we want to compare the uncontrolled effect on speech similarity for all parties. Nevertheless, we can again not reject that the positive coefficient estimate is statistically different from zero.

[37]Indeed, as can be seen in Figure C.3 in the Appendix, the more we restrict the sample to include longer speeches, the better the cosine similarity measure becomes at identifying AfD speeches and, hence, arguably at capturing distinctive right-wing rhetoric.

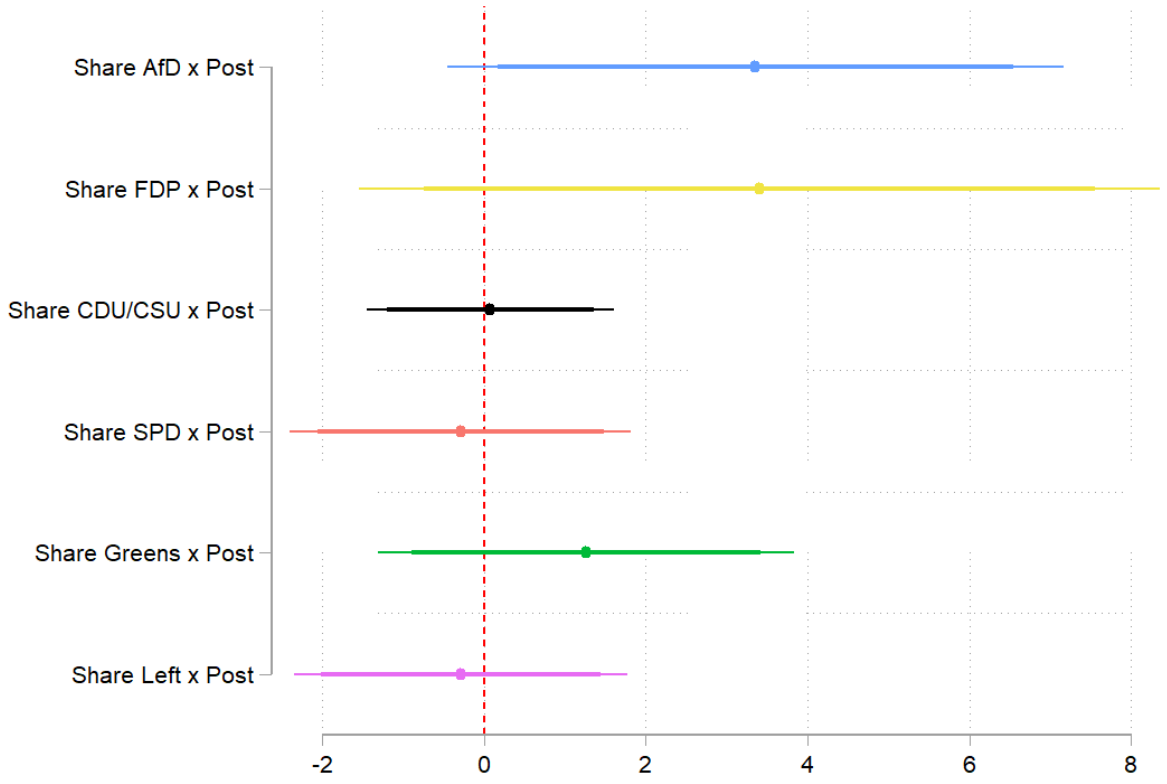


Figure 3.4: Full Accommodation Effects

Figure shows coefficients and confidence intervals (90 and 95 percent) from separate linear regressions as laid out in Equation 3.4. The full corresponding regression results can be found in Table C.6. For each estimated coefficient the variables are defined as follows: the independent variable of interest is the interaction between the (average) share of the respective party members of all committees in which a politician is a full member and an indicator whether the speech was recorded in the 19th German Bundestag (2017-2021). The dependent variables is the standardized average cosine similarity to speeches of that respective party after pre-processing and tf-idf vectorization. The sample comprises plenary speeches by members of the German Bundestag held between October 2013 and December 2019 with a minimum length of 100 terms from parties that were represented throughout the whole period (CDU/CSU, SPD, The Left, and Alliance90/The Greens), excluding members of the respective party. Standard errors clustered at the committee times electoral period level.

Only in the case of no speech length restrictions – potentially containing many short (non-ideological) remarks – and when restricting our sample to contain mostly longer speeches – significantly reducing the sample size – do the estimated coefficients become smaller and lose statistical significance.

Table 3.3: Minimum Speech Length Restrictions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Minimum Terms	0	20	30	50	100	200	400	600
Panel A: [Std.] Cosine Similarity to AfD Speeches								
Share AfD × Post	2.423	4.374**	4.108**	3.828**	3.356*	2.800	0.796	1.521
	(1.946)	(1.924)	(1.753)	(1.783)	(1.932)	(1.791)	(2.098)	(2.621)
Observations	22,705	20,958	20,442	19,396	17,383	14,750	12,754	8,497
Panel B: [Std.] Cosine Similarity to Höcke Speeches								
Share AfD × Post	2.782*	4.128***	4.085***	3.896***	3.868***	3.633***	2.247	2.975
	(1.542)	(1.374)	(1.301)	(1.311)	(1.321)	(1.339)	(1.621)	(1.872)
Observations	22,705	20,958	20,442	19,396	17,383	14,750	12,754	8,497
Panel C: [Std.] Populist Dictionary Score								
Share AfD × Post	3.698***	4.192***	4.190***	4.379***	4.194**	4.869***	4.539**	5.395**
	(1.384)	(1.493)	(1.507)	(1.574)	(1.630)	(1.636)	(1.888)	(2.458)
Observations	23,216	20,958	20,442	19,396	17,383	14,750	12,754	8,497
Topic Controls	✓	✓	✓	✓	✓	✓	✓	✓
Month FE	✓	✓	✓	✓	✓	✓	✓	✓
Speaker FE	✓	✓	✓	✓	✓	✓	✓	✓

Notes: Table reports coefficients and standard errors from linear regressions as laid out in Equation 3.4. Across all panels, the independent variable of interest is the interaction between the (average) share of AfD members of all committees in which a politician is a full member and an indicator whether the speech was recorded in the 19th German Bundestag (2017-2021). The dependent variables are as follows: (Panel A) the standardized average cosine similarity to AfD speeches after pre-processing and tf-idf vectorization; (Panel B) the standardized average cosine similarity to speeches by Björn Höcke after pre-processing and tf-idf vectorization; (Panel C) the standardized number of sentences with words from the German-language populist dictionary by Gründl (2022). Throughout columns (1) to (8), the sample is restricted to speeches with a minimum number of terms as shown in the column head, which is the sample used to construct the respective outcome variables and standardize with mean zero and standard deviation one. Topic controls are derived from a 20-topic LDA model. The sample comprises plenary speeches by members of the German Bundestag held between October 2013 and December 2019 from parties that were represented throughout the whole period (CDU/CSU, SPD, The Left, and Alliance90/The Greens). Standard errors clustered at the committee times electoral period level are reported in parentheses: $* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$.

3.5.3 Effect Heterogeneities

Our results so far have shown that politicians adapt their own rhetoric in reaction to being directly exposed to newly arriving colleagues using a radically different right-wing language. In the following, we want to provide some suggestive evidence under *what con-*

ditions and *why* political actors might revert to such changes in their publicly displayed language use. To this end, we test whether our treatment effect varies with respect to a number of observable characteristics of politicians. We therefore adapt our baseline estimation strategy to a triple difference-in-differences framework to test for effect heterogeneities in the following way:

$$\begin{aligned} Similarity_{ist} = &\beta_1 \, Share\,AfD\,Members_{s(i)} \times Post_t + \beta_2 \, Z_{s(i)} \times Post_t + \\ &\beta_3 \, Share\,AfD\,Members_{s(i)} \times Post_t \times Z_{s(i)} + \\ &\boldsymbol{X_i}\boldsymbol{\gamma'} + \delta_t + \phi_s + \epsilon_{ist} \end{aligned} \tag{3.5}$$

where $Z_{s(i)}$ is an observable characteristic of speaker s giving plenary speech i. All other variables are defined in the same way as described in Equation 3.4. Our main coefficient of interest in this exercise is given by β_3 which tells us how the within-speaker effect of relative AfD exposure on rhetorical similarity differs by characteristic Z.

Table 3.4 shows the results of estimating Equation 3.5 with our preferred outcome measure of rhetorical similarity – standardized average cosine similarity to AfD speeches – for four different speaker-specific characteristics.[38] In column (1), we compare how the treatment effect of relatively higher exposure to AfD members in committees differs for female relative to male speakers. As can be seen by the positive coefficient estimate for β_3, we find that female politicians are significantly more likely to slant their political rhetoric towards the AfD when having relatively more contact with AfD colleagues in committees. In fact, as can be seen by the estimate for β_1, the effect is not significantly different from zero for male speakers. This is consistent with existing research from social psychology and communication science that has highlighted differences in the communicative behavior of men and women. In particular, some studies suggest that female speakers are more prone to accommodate their communication style and match their language patterns to their conversation partners (Giles and Ogay 2007, Palomares et al. 2016). In column (2), we study whether the contagion effect differs by the age of a politician. Older politicians

[38] In Table 3.4, all continuous interacted speaker characteristics have been standardized with mean 0 and standard deviation 1 to ease interpretation and comparability.

with more experience and seniority might be less susceptible to accommodation. However, we do not find that the effect of higher AfD exposure on rhetorical similarity differs by age.

Finally, in columns (3) and (4), we explore the role of political competition and electoral pressure in *strategic* changes of political rhetoric. As discussed in Section 3.2, individual accommodation to right-wing speech might follow strategic motives with respect to political support: with increasing success of right-wing populism, politicians might be able to win support from the populists' electoral base by using a similar language. We test this conjecture by adding information on the intensity of local competition in the electoral districts of Bundestag MPs.[39] Column (3) shows the effect of interacting our main treatment variable with the AfD's vote share scored in an MP's local district in the 2017 federal election, a measure of the absolute level of populist right-wing support.[40] We do not find that this differentially explains within-speaker changes in political rhetoric towards the AfD. In column (4), we instead use the absolute distance of the MP's own first vote share to that of the AfD's local candidate. Arguably, this constitutes a proxy measure for the intensity of local electoral competition with right-wing populists. Here we find that the higher the distance to the AfD vote share, i.e., the less the AfD was a direct electoral competitor in the 2017 election, the weaker the estimated contagion effect of AfD exposure on political rhetoric. In terms of the magnitude interpretation discussed in Section 3.5.1, a one standard deviation increase in distance to the AfD sizeably reduces rhetorical similarity by 0.18 (5.983×0.03) of a standard deviation. In sum, these results suggest that speakers seem to strategically adapt their political rhetoric to use more similar language to the AfD in response to higher electoral pressure from the far-right.

[39] As not all Bundestag MPs ran as candidates in local electoral districts but sometimes only as candidates on state-wide party lists, we cannot assign all speakers in our dataset to electoral districts. Therefore, the number of observations in these estimations is slightly reduced.

[40] Note that we use the share of first votes (constituency votes for individual candidates) recorded for the AfD in these exercises, as we are interested in the role of *local* electoral competition a specific candidate is facing. Results remain unchanged when instead using the AfD share of second votes, i.e., votes for the state-wide party list instead of individual candidates.

Table 3.4: Effect Heterogeneity by Speaker Characteristics

	AfD Cosine Similarity			
	(1)	(2)	(3)	(4)
Share AfD × Post	0.575	3.382	4.228**	4.487**
	(1.702)	(2.085)	(1.938)	(1.768)
Female × Post	-0.958*			
	(0.518)			
Share AfD × Post × Female	7.658*			
	(4.054)			
Age × Post		0.176		
		(0.215)		
Share AfD × Post × Age		-1.298		
		(1.681)		
AfD Vote Share × Post			-0.026	
			(0.268)	
Share AfD × Post × AfD Vote Share			0.120	
			(2.102)	
Distance to AfD × Post				0.741***
				(0.212)
Share AfD × Post × Distance to AfD				-5.983***
				(1.638)
Topic Controls	✓	✓	✓	✓
Month FE	✓	✓	✓	✓
Speaker FE	✓	✓	✓	✓
Observations	17,383	17,383	16,483	16,483

Notes: Table reports coefficients and standard errors from linear regressions as laid out in Equation 3.5. The dependent variables is the standardized average cosine similarity to AfD speeches after preprocessing and tf-idf vectorization. *Share AfD* describes the (average) share of AfD members of all committees in which a politician is a full member in the in the 19th Bundestag (2017-2021). *Post* is an indicator variable equal to 1 if the speech was recorded in the 19th Bundestag (2017-2021). *Female* is an indicator variable equal to 1 if the speaker is female. *Age* refers to the age of a speaker in years as of the opening of the 19th Bundestag (October 24, 2017). *AfD Vote Share* measures the first vote share of the AfD (in percent) in an MP's electoral district in the 2017 federal election. *Distance to AfD* measures the absolute distance of the MP's own first vote share to the AfD first vote share (in percentage points) in the 2017 federal election. All continuous interaction variables (*Age*, *AfD Vote Share*, *Distance to AfD*) have been standardized with mean 0 and standard deviation 1. Topic controls are derived from a 20-topic LDA model. The sample is restricted to plenary speeches held between October 2013 and December 2019 with a minimum length of 100 terms by speakers from parties that were represented throughout the whole period (CDU/CSU, SPD, Alliance90/The Greens, The Left). Standard errors clustered at the committee times electoral period level are reported in parentheses: $* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$.

3.6 Conclusion

The first-time entry of a right-wing populist party to the German Bundestag presented a novel situation for incumbent politicians, in particular with respect to being personally in contact with far-right AfD politicians. In this project, we exploit quasi-exogenous variation in allocation of MPs to committees to generate individual-level variation in the intensity of such contact with the AfD. We have shown that higher exposure to the AfD has a contagious effect on the language employed by mainstream politicians in terms of converging towards a more similar right-wing rhetoric. Our results are robust to different measures of rhetorical similarity and seem to be specific to right-wing populism. Furthermore, we find some evidence that suggests strategic motives related to local electoral competition behind individual changes in political rhetoric.

A few words of caution are in order: the observed convergence in the usage of similar right-wing language does not necessarily imply that politicians also ideologically converge towards the AfD, i.e., become more right-wing populist themselves. Rather, our measures of rhetorical similarity – be they based on cosine similarity or a dictionary approach – capture how something is said (in terms of words used) and only to a certain extent what is meant (in terms of implied content). For example, we cannot rule out that politicians take up and cite phrases introduced by the AfD with another, or even opposite, political message intended. Nevertheless, our results clearly show how the novel and rather extreme AfD rhetoric finds its way into parliament and spreads even among mainstream politicians. On the one hand, this implies that even in a setting were they do not hold any formal political power, right-wing populists can exert a certain agenda-setting power. On the other hand, regardless of any potential ideological convergence, previous research has highlighted that *"words have consequences"* and even minor changes in rhetoric can already lead to changes in the acceptability of social norms and behavior even beyond the parliamentary arena (Bursztyn, Egorov, and Fiorin 2020, Djourelova 2023, Müller and Schwarz 2020, Müller and Schwarz 2021).

We see at least two interesting avenues for future research departing from these obser-

vations. First, while we have analyzed contagion of right-wing rhetoric within political elites, we know less about the effects of the novel and distinctively right-wing language used by the AfD in the Bundestag on the general public. This is especially relevant as the AfD seems to deliberately target a wider audience by diffusing content and video recordings from parliamentary speeches via social media. Indeed, the AfD has by far the largest number of followers on various social media platforms among all parties represented in the Bundestag.[41] Second, while for our empirical analysis we have implicitly assumed that the AfD's own rhetoric remains constant at least in the short-run, it might be worthwhile to explore if and how right-wing populists themselves adopt their language when in regular contact with more moderate mainstream politicians.

[41]For example, the YouTube channel of the AfD's parliamentary group in the Bundestag has about 300,000 followers, compared to 66,000 for the Left Party, 26,000 for the Greens, 23,000 for the FDP, and 3,500 for each SPD and CDU/CSU (as of January 9, 2023)(Youtube@AfDFraktionimBundestag 2023, Youtube@linksfraktion 2023, Youtube@fdpbt 2023, Youtube@DieGruenen 2023, Youtube@spdbt 2023, Youtube@cducsu 2023). A similar ranking emerges on Facebook, where the AfD's parliamentary group has more than 250,000 followers (as of January 9, 2023), almost double as many as the 140,000 followers of the second-largest page by the Left Party's parliamentary group (facebook@afdimbundestag 2023, facebook@linksfraktion 2023).

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Appendix A

Appendix to Chapter 1

A.1 Positive Parenting Style

Factor analysis: For the construction of the factor analysis of a positive parenting style we follow Falk et al. (2021).

Parental warmth

- I show my child with words and gestures that I like him/her.
- I praise my child.

Psychological and behavioral control

- If my child does something against my will, I punish him/her.
- I make it clear to my child that he/she is not to break the rules or question my decisions.
- I think my child is ungrateful when he/she does not obey me.
- I do not talk to my child for a while when he/she did something wrong.

Monitoring

- When my child goes out, I know exactly where he/she is.
- When my child goes out, I ask what he/she did and experienced.

A.2 High Activities

Share of afternoon activities with a high level of social interaction, which include:

- Having a conversation
- Having a snack together (e.g., a cake)
- Playing board or card games
- Playing music together or going to music lessons

A.3 Parenting Style by Socioeconomic Status

Table A.1: Parenting & Socioeconomic Status

	Authoritarianism Child			
	(I)	(II)	(III)	(IV)
High Activities	0.067	-0.005		
	(0.05)	(0.12)		
Low SES	0.316**	0.316**	0.344***	0.334***
	(0.12)	(0.12)	(0.13)	(0.13)
Low SES × High Activities		0.095		
		(0.14)		
Positive Parenting Style			0.002	0.155
			(0.06)	(0.12)
Low SES × Positive Parenting Style				-0.205
				(0.14)
Constant	-0.232**	-0.232**	-0.277**	-0.261**
	(0.11)	(0.11)	(0.11)	(0.11)
N	337	337	314	314

Notes: Dependent variable is the authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. *High Activities* is the share of highly interactive activities mothers spend during the interaction with the child. *Positive Parenting Style* refers to a construct consisting of several items on child rearing behavior of mothers as explained in section 1.4. Authoritarianism score of the child, high activities and positive parenting style are each z-score standardized. *Low SES* is a dummy for low socioeconomic status household of the child. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

A.4 Other Household Members and Fathers

Table A.2: Sample Main Caregiver (Mothers & Fathers)

	Authoritarianism Child		
	(I)	(II)	(III)
Authoritarianism Parent	0.312***	0.340***	
	(0.06)	(0.08)	
Male	0.316***	0.316***	
	(0.10)	(0.10)	
Male × Authoritarianism Parent		-0.048	
		(0.11)	
High SES			-0.327***
			(0.12)
Constant	-0.163**	-0.163**	0.090
	(0.07)	(0.07)	(0.06)
N	334	334	341

Notes: Dependent variable is authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. *Authoritarianism Parent* is the authoritarianism of either mother or father, who is the main caregiver, which is the average across two consecutive waves. All authoritarianism scores are z-score standardized. *Male* is a dummy for being a male child. *High SES* is a dummy, which is one if the child is from a high socioeconomic status household and zero otherwise. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Table A.3: Intergenerational Transmission Full Set of Parents

	Authoritarianism Child	
	(I)	(II)
Authoritarianism Parent	0.319***	0.333***
	(0.06)	(0.06)
Father	-0.092	-0.090
	(0.07)	(0.07)
Father × Authoritarianism Parent		-0.039
		(0.08)
Constant	0.016	0.016
	(0.05)	(0.05)
N	468	468

Notes: Dependent variable is authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. *Authoritarianism Parent* is the authoritarianism of either mother or father (biological or adoptive), which is the average across two consecutive waves. All authoritarianism scores are z-score standardized. *Father* is a dummy variable for father of the child. The sample includes main caregivers and non-main caregivers, who are the parents of the child. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with household clustered robust standard errors in parentheses.

A.5 Assortative Mating

Assortative mating looks at the correlation of authoritarianism among the parents of the children in our samples. We find a sizeable and significant correlation with Pearson's r of 0.529 ($p < 0.01$) (with N=430 and z-score standardized authoritarianism across both parents) between mothers and fathers of a child. For further research on assortative mating and authoritarianism see also McCourt et al. (1999) and for assortative mating among educational attainment (including Germany) see also Eika, Mogstad, and Zafar (2019).

A.6 Subdimensions of Authoritarianism

The authoritarianism concept can be divided into three subdimensions, as outlined in section 1.2. The analysis of intergenerational transmission along the three subdimensions of authoritarianism in Table A.4, shows that the intergenerational correlation is consistent among the three subdimensions and always positive and significant.

Table A.4: Intergenerational Transmission of Dimensions of Authoritarianism

	Auth. Aggression (I)	Auth. Submission (II)	Conventionalism (III)
Auth. Aggression Mother	0.240***		
	(0.06)		
Auth. Submission Mother		0.257***	
		(0.05)	
Auth. Conventionalism Mother			0.312***
			(0.05)
Constant	-0.030	-0.015	0.007
	(0.05)	(0.05)	(0.05)
N	331	331	332

Notes: Dependent variables are the components of authoritarianism among the children in our sample. The dependent variable *Authoritarian Aggression* in column (I) consists of item 1-3 of the authoritarianism item battery in Table 1.1. The dependent variable *Authoritarian Submission* in column (II) consists of item 4-6 of the authoritarianism battery in Table 1.1. The dependent variable *Conventionalism* in column (III) consists of item 7-9 of the authoritarianism battery in Table 1.1. The subdimensions are all z-score standardized. The construction of the independent variables, *Auth. Aggression Mother*, *Auth. Submission Mother* and *Auth. Conventionalism Mother* is analogous to the construction of the dependent variables but for mothers who are the main caregiver. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Table A.5 displays the relationship between maternal positive parenting style and maternal share of high activities spent with the child and the different subdimensions of authoritarianism among the children in our sample. In line with our findings from Table 1.4, we do not find any significant results.

Table A.5: Parenting Styles & Dimensions of Authoritarianism

	Auth. Aggression		Auth. Submission		Conventionalism	
	(I)	(II)	(III)	(IV)	(V)	(VI)
High Activities	0.038		0.030		0.071	
	(0.05)		(0.06)		(0.06)	
Positive Parenting Style		0.023		-0.023		0.021
		(0.06)		(0.06)		(0.06)
Constant	-0.038	-0.050	-0.033	-0.057	-0.018	-0.046
	(0.05)	(0.06)	(0.05)	(0.06)	(0.05)	(0.06)
N	336	313	336	313	337	314

Notes: Dependent variables are the components of authoritarianism among the children in our sample. The dependent variable *Authoritarian Aggression* in column (I) & (II) consists of item 1-3 of the authoritarianism item battery in Table 1.1. The dependent variable *Authoritarian Submission* in column (III) & (IV) consists of item 4-6 of the authoritarianism battery in Table 1.1. The dependent variable *Conventionalism* in column (V) & (VI) consists of item 7-9 of the authoritarianism battery in Table 1.1. The subdimensions are all z-score standardized. *High Activities* is the share of highly interactive activities mothers spend during the interaction with the child. *Positive Parenting Style* refers to a construct consisting of several items on child rearing behavior of mothers as explained in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Table A.6 displays the relationship between parenting goals as expressed by the mothers in our sample and the authoritarianism subdimension "Authoritarian Aggression" of the children. The results are similar to those of Table 1.5, except that the significance of the "Normal Girl/Boy" goal variable drops below the conventional thresholds.

Table A.6: Parenting Goals & Authoritarian Aggression

	Authoritarian Aggression					
	(I)	(II)	(III)	(IV)	(V)	(VI)
Fit well in Groups	0.069					
	(0.09)					
Order and Cleanliness		0.252***				
		(0.07)				
Obey Parents			0.237***			
			(0.07)			
Self-Control				0.193**		
				(0.09)		
Normal Girl/Boy					0.064	
					(0.05)	
Interest in How and Why						-0.061
						(0.09)
Constant	-0.340	-1.049***	-0.981***	-0.880**	-0.296*	0.224
	(0.37)	(0.27)	(0.28)	(0.37)	(0.18)	(0.41)
N	320	320	320	320	319	320

Notes: Dependent variable is the authoritarian aggression component of authoritarianism among the children in our sample. The dependent variable *Authoritarian Aggression* consists of item 1-3 of the authoritarianism item battery in Table 1.1. The dependent variable is z-score standardized. The parenting goals are described in full in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Table A.7 displays the relationship between parenting goals as expressed by the mothers in our sample and the authoritarianism subdimension "Authoritarian Submission" of the children. The results show that, in contrast to the results in Table 1.5 all coefficients, except for the parenting goal "Obey Parents" are insignificant. However, the significant and sizeable correlation, especially for this item, which should be related to authoritarian submission, is reassuring for our results.

Table A.7: Parenting Goals & Authoritarian Submission

	Authoritarian Submission					
	(I)	(II)	(III)	(IV)	(V)	(VI)
Fit well in Groups	0.139					
	(0.09)					
Order and Cleanliness		0.110				
		(0.08)				
Obey Parents			0.316***			
			(0.07)			
Self-Control				0.079		
				(0.10)		
Normal Girl/Boy					0.030	
					(0.05)	
Interest in How and Why						-0.106
						(0.10)
Constant	-0.618	-0.469	-1.276***	-0.374	-0.150	0.444
	(0.39)	(0.32)	(0.27)	(0.42)	(0.19)	(0.46)
N	320	320	320	320	319	320

Notes: Dependent variable is the authoritarian submission component of authoritarianism among the children in our sample. The dependent variable *Authoritarian Submission* consists of item 4-6 of the authoritarianism item battery in Table 1.1. The dependent variable is z-score standardized. The parenting goals are described in full in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Table A.8 displays the relationship between parenting goals as expressed by the mothers in our sample and the authoritarianism subdimension "Conventionalism" of the children. The results are similar to those of Table 1.5, except that the coefficient of the parenting goal "Interest in How and Why" is now significant.

Table A.8: Parenting Goals & Conventionalism

	Conventionalism					
	(I)	(II)	(III)	(IV)	(V)	(VI)
Fit well in Groups	0.128					
	(0.09)					
Order and Cleanliness		0.354***				
		(0.07)				
Obey Parents			0.373***			
			(0.07)			
Self-Control				0.237***		
				(0.09)		
Normal Girl/Boy					0.176***	
					(0.04)	
Interest in How and Why						-0.210**
						(0.09)
Constant	-0.548	-1.417***	-1.477***	-1.033***	-0.685***	0.936**
	(0.36)	(0.27)	(0.28)	(0.38)	(0.17)	(0.42)
N	321	321	321	321	320	321

Notes: Dependent variable is the conventionalism component of authoritarianism among the children in our sample. The dependent variable *Conventionalism* consists of item 7-9 of the authoritarianism item battery in Table 1.1. The dependent variable is z-score standardized. The parenting goals are described in full in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Table A.9 displays the relationship between children's standardized IQ and the three subdimensions of the authoritarianism concept. We find a consistent, significant, and negative relationship between cognitive ability, in terms of IQ, and the different subdimensions of authoritarianism.

Table A.9: Cognitive Ability & Dimensions of Authoritarianism

	Auth. Aggression (I)	Auth. Submission (II)	Conventionalism (III)
IQ Score Child	-0.186***	-0.265***	-0.321***
	(0.05)	(0.05)	(0.05)
Constant	-0.006	0.012	0.042
	(0.05)	(0.05)	(0.05)
N	338	338	339

Notes: Dependent variables are the components of authoritarianism among the children in our sample. The dependent variable *Authoritarian Aggression* in column (I) consists of item 1-3 of the authoritarianism item battery in Table 1.1. The dependent variable *Authoritarian Submission* in column (II) consists of item 4-6 of the authoritarianism battery in Table 1.1. The dependent variable *Conventionalism* in column (III) consists of item 7-9 of the authoritarianism battery in Table 1.1. The subdimensions are all z-score standardized. *IQ Score Child* is the z-score standardized IQ score of the child consisting of crystallized and fluid IQ as described in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

In Table A.10 we find SES gaps for all components of authoritarianism, but only significant gender differences for authoritarian aggression and authoritarian submission and not conventionalism.

Table A.10: Dimensions of Authoritarianism

	Auth. Aggression (I)	Auth. Submission (II)	Conventionalism (III)
High SES	-0.205*	-0.218*	-0.368***
	(0.12)	(0.12)	(0.12)
Male	0.349***	0.235**	0.085
	(0.11)	(0.11)	(0.11)
Constant	-0.158**	-0.091	0.047
	(0.08)	(0.08)	(0.09)
N	338	338	339

Notes: Dependent variables are the components of authoritarianism among the children in our sample. The dependent variable *Authoritarian Aggression* in column (I) consists of item 1-3 of the authoritarianism item battery in Table 1.1. The dependent variable *Authoritarian Submission* in column (II) consists of item 4-6 of the authoritarianism battery in Table 1.1. The dependent variable *Conventionalism* in column (III) consists of item 7-9 of the authoritarianism battery in Table 1.1. The subdimensions are all z-score standardized. *High SES* is a dummy, which is one if the child is from a high socioeconomic status household and zero otherwise. *Male* is a dummy for being a male child. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

A.7 Authoritarianism Questionnaire – German

The items of authoritarianism are based on the KSA-3 Kurzskala provided by (Beierlein et al. 2014):

Table A.11: Authoritarianism Items – German

1.	"Gegen Außenseiter und Nichtstuer sollte in der Gesellschaft mit aller Härte vorgegangen werden."
2.	"Unruhestifter sollten deutlich zu spüren bekommen, dass sie in der Gesellschaft unerwünscht sind."
3.	"Gesellschaftliche Regeln sollten ohne Mitleid durchgesetzt werden."
4.	"Wir brauchen starke Führungspersonen damit wir in der Gesellschaft sicher leben können."
5.	"Menschen sollten wichtige Entscheidungen in der Gesellschaft Führungspersonen überlassen."
6.	"Wir sollten dankbar sein für führende Köpfe, die uns genau sagen, was wir tun können."
7.	"Traditionen sollten unbedingt gepflegt und aufrechterhalten werden."
8.	"Bewährte Verhaltensweisen sollten nicht in Frage gestellt werden."
9.	"Es ist immer das Beste, Dinge in der üblichen Art und Weise zu machen."

Notes: Answer options: "Stimme ganz und gar nicht zu", "stimme wenig zu", "stimme etwas zu" "stimme ziemlich zu", "stimme voll und ganz zu", and "Keine Angabe".

A.8 Joint Effects

Table A.12: Joint Effects 1

	Authoritarianism Child											
	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)	(XI)	(XII)
Authoritarianism Mother		0.319***		0.261***		0.304***		0.274***		0.286***		0.305***
		(0.06)		(0.06)		(0.06)		(0.06)		(0.06)		(0.06)
Male	0.314***	0.316***										
	(0.11)	(0.10)										
IQ Score Child			-0.316***	-0.258***								
			(0.05)	(0.05)								
IQ Mother					-0.142***	-0.055						
					(0.05)	(0.05)						
Education Years Mother							-0.070***	-0.028				
							(0.02)	(0.02)				
Low Education (LSES)									0.412***	0.201*		
									(0.11)	(0.12)		
Low SES											0.288**	0.163
											(0.12)	(0.12)
Constant	-0.162**	-0.163**	0.053	0.043	0.009	0.003	0.974***	0.392	-0.139**	-0.068	-0.210**	-0.119
	(0.08)	(0.07)	(0.05)	(0.05)	(0.05)	(0.05)	(0.23)	(0.25)	(0.07)	(0.07)	(0.11)	(0.10)
N	332	332	332	332	332	332	332	332	332	332	332	332

Notes: The dependent variable is the authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. *Authoritarianism Mother* is the average maternal authoritarianism score of two consecutive waves. Authoritarianism score of children and mothers are each z-score standardized. *Male* is a dummy for being a male child. *IQ Score Child* is the z-score standardized IQ score of the child consisting of crystallized and fluid IQ as described in section 1.4. *IQ Mother* is maternal IQ, which is z-score standardized. *Education Years Mother* is the educational attainment of mothers in years. *Low Education (LSES)* is a dummy variable indicating that neither the mother nor the father of the child have a school degree qualifying for university studies. *Low SES* is a dummy for low socioeconomic status household of the child. The measures of cognitive ability and Low SES are described in full in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Table A.13: Joint Effects 2

	Authoritarianism Child											
	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)	(X)	(XI)	(XII)
Authoritarianism Mother		0.315***		0.317***		0.294***		0.251***		0.324***		0.341***
		(0.06)		(0.06)		(0.06)		(0.06)		(0.06)		(0.06)
High Activities	0.050	0.015										
	(0.06)	(0.06)										
Positive Parenting Style			0.017	0.009								
			(0.06)	(0.06)								
Order and Cleanliness					0.297***	0.151**						
					(0.07)	(0.07)						
Obey Parents							0.383***	0.239***				
							(0.07)	(0.07)				
Self-Control									0.209**	0.096		
									(0.09)	(0.09)		
Normal Girl/Boy											0.106**	-0.007
											(0.05)	(0.05)
Constant	-0.005	-0.003	-0.030	-0.028	-1.183***	-0.595**	-1.510***	-0.937***	-0.904**	-0.411	-0.409**	0.027
	(0.06)	(0.05)	(0.06)	(0.05)	(0.29)	(0.30)	(0.27)	(0.29)	(0.41)	(0.41)	(0.18)	(0.18)
N	330	330	308	308	317	317	317	317	317	317	316	316

Notes: The dependent variable is the authoritarianism of the child, which is the average authoritarianism score across two consecutive waves. *Authoritarianism Mother* is the average maternal authoritarianism score of two consecutive waves. Authoritarianism score of children and mothers are each z-score standardized. *High Activities* is the share of highly interactive activities mothers spend during their interaction with the child. *Positive Parenting Style* refers to a construct consisting of several items on child rearing behavior of mothers as explained in section 1.4. Parenting Goals *Order and Cleanliness*, *Obey Parents*, *Self-Control*, and *Normal Girl/Boy* are described in section 1.4. All of the measures are described in full in section 1.4. One, two and three stars denote statistical significance at the 10%, 5% and 1% level. Coefficients are ordinary least square estimates with robust standard errors in parentheses.

Appendix B

Appendix to Chapter 2

B.1 Diary Entries

Table B.1: Diary Entries I

Wir haben dann noch länger über Regierung und so erzählt, weil Mogli noch nie etwas vom Bundespräsidenten gehört hatte und auch sich unter einem Politiker nichts vorstellen konnte. Allerdings fand sie die Idee sehr gut, dass wir eine wichtige Person davon überzeugen sollten, dass mehr Balu-Mogli-Paare entstehen können.
[...] was ungefähr ein Politiker ist und dass es auch noch sehr unterschiedlicher Politiker gibt [...]
Da ich noch kurz im Wahllokal vorbei musste, sind wir erst auf einem kleinen Spielplatz vorbei, der direkt daneben liegt.
Im Haus der Geschichte habe ich Mogli einiges an Deutscher Geschichte vermitteln können. Ein paar Beispiele: Wir sprechen über den ersten Bundeskanzler Konrad Adenauer und darüber wer Stalin und Lenin waren. Ich erkläre Mogli, was ein Parlament ist und wozu es gut ist. Ich erzähle Mogli von dem Mauerbau und der Wiedervereinigung, immer im Zusammenhang mit den Bildern und Videos der Ausstellung.
Besonders Exponate zum Anfassen - wie Tonaufzeichnungen durch einen Kopfhörer oder "Wahlmöglichkeiten" im Parlament, die das Bedienen einiger Knöpfe vorsahen, machten Kind besonders Spass.
Unterwegs erzählte ich ihm vom alten Parlament (Wasserwerk), als wir zufällig davor Rast machten. Er selbst hatte viel mitgenommen von unserem Besuch des Haus der Geschichte und so stellte er einige Fragen zu Bonn als Bundeshauptstadt.
Ich zeige Mogli beispielsweise die Parlamentssitze, in denen man an Abstimmungen teilnehmen kann und erkläre ihm das Prinzip und was ein Parlament ist. Ich zeige ihm das Modell zum Rosinenbomber und erkläre ihm, wie der Name zustande gekommen ist. Ich versuche Mogli außerdem anhand mehrerer Aussstellungsstücke zu vermitteln, dass Deutschland lange Zeit geteilt war, wodurch das entstanden ist und warum Deutschland heute wiedervereinigt ist.
Wir haben heute kurz darüber geredet, dass gestern die Polizei zu Kind's Wohnung kam, da ein Gast ihrer Mutter mitbekommen hatte, wie eine Person auf der Straße mit "Heil Hitler" beschimpft wurde. Für Kind war das aufregend und sie hat diesen Ausdruck auch nur geflüstert, weil man ihn ja eigentlich nicht sagen darf. Daraufhin haben wir kurz noch einmal geklärt, wer (grob) Hitler war.
Die Tour war am Anfang sehr zäh, weil sie m. Kind nach nicht unbedingt kindgerecht war, aber später immer besser wurde. Durch die Geschichte des zweiten Weltkriegs über die "wilden 70er" hin in die aktuellen Themen, war alles dabei. Kind zeigte im Verlauf immer mehr Interesse und Wissenshunger und hat sicher einiges mitgenommen aus dem Nachmittag.

Notes: We searched the diary entries for political keywords. We use the lexicon on political keywords provided by HanisauLand - Bundeszentrale für politische Bildung (2023). The website and lexicon aim to educate children between the ages of 8 and 14 on political concepts and terminology.

Table B.2: Diary Entries II

[...] wählte Kind zielstrebig das Haus der Geschichte. Auf der Autofahrt dorthin fragte ich ihn was er denn dort erwarte. Da ihm die deutsche Geschichte des 2. Weltkriegs nur teilweise klar war, erläuterte ich ihm die Geschehnisse. Ich versuchte natürlich auf kinderfreundlichem Niveau zu bleiben. Im Haus der Geschichte angekommen zeigte ich Kind erst einmal die Exponate im U-Bahnschacht, die er zu meiner Überraschung sehr genau betrachtete. Zu einigen erzählte ich ihm etwas und stellte ein paar Fragen, was er denn denke zu sehen und warum es von Bedeutung ist. So blieben wir im Gespräch und Kind konnte sich sein Bild selbst zusammenreimen.
Auch fand er beeindruckend, wie die Städte vor dem 2. Weltkrieg ausgesehen hatten. Er konnte sein historisches Verständnis erweitern.
Zuerst haben wir uns die Friedenskrippe im Hauptbahnhof angesehen und ich habe Mogli ein bisschen erklärt, warum Köln nach dem 2. Weltkrieg so zerstört war.
Kind war zwar schon einmal im Haus der Geschichte, das ist jetzt aber schon mehrere Jahre her, so dass er sich nicht mehr dran erinnern konnte. Er ist direkt erstmal in die Ausstellung "Jung sein in Deutschland" reingelaufen und auch, wenn ihn das thematisch noch nicht so interessiert hat (richtete sich eher an Teenager), fand er toll überall rumzurennen und was zu entdecken. Danach haben wir uns dann auch ein paar geschichtliche Sachen angesehen, besonders alles was mit Panzern und Krieg zu tun hat, hat ihn sehr beeindruckt. Von einer Mauer, die mal durch Deutschland ging, hatte er wohl sogar schon gehört und das Thema hat ihn dann besonders interessiert.
Kind ist mit der deutschen Kriegs- und Nachkriegsgeschichte konfrontiert worden. Zwar hatte er von einigem schon vor dem Besuch im Haus der Geschichte gehört, jedoch konnte er die Geschehnisse nun mit Exponaten und Bildern verknüpfen. Dass er sich alles genau anschaute zeigte sein großes Interesse an dem Thema.
Als ich anrief und vorschlug eine Wanderung zu unternehmen, wollte sich Kind tatsächlich lieber die Ausstellung im Haus der Geschichte weiter anschauen. Wir hatten ja schon den Teil, der die unmittelbare Nachkriegsgeschichte behandelt, gesehen.
Wir aßen Pommes, Burger und Eis und unterhielten uns sehr entspannt und lustig über verschiedene Themen wie Harry Potter, Vegetarismus, Arbeitslosigkeit und Erdkunde.
Mogli hat heute viele generelle Tatsachen gelernt. So erfuhr sie, dass Hartz IV für Arbeitslosengeld, was Eltern von ihr bekannten Kindern beziehen.
So kam es zu den unterschiedlichsten Gesprächsthemen: Tätowierungen, Obdachlose, Umweltverschmutzung, Jugendliche etc.
Es war ganz schon schwierig angemessen zu erklären, wer die Nazis waren und warum sie so schreckliche Dinge getan haben.
Unter anderem auch über Fremdenfeindlichkeit und dass wir das beide kennen und wir haben uns gleich nicht mehr so allein gefühlt. Ich habe das Gefühl, dass wir uns richtig nah gekommen sind, als wir über Situationen gesprochen haben, in denen wir diskriminiert wurden/werden. Das Tolle war, dass wir uns gegenseitig Mut gemacht haben!

Notes: We searched the diary entries for political keywords. We use the lexicon on political keywords provided by HanisauLand - Bundeszentrale für politische Bildung (2023). The website and lexicon aim to educate children between the ages of 8 and 14 on political concepts and terminology.

B.2 Survey and Item Description

B.2.1 Items of Political Attitudes

Table B.3: Items of Political Attitudes (German)

Item	Question	Responses
Left-Right Placement	Viele Leute verwenden die Begriffe „links“ und „rechts“, wenn es darum geht, unterschiedliche politische Einstellungen zu kennzeichnen. Wir haben hier einen Maßstab, der von links nach rechts verläuft. Wenn Du an Deine eigenen politischen Ansichten denkst, wo würdest Du diese Ansichten auf dieser Skala einstufen?	(1) 1 Links (2) 2 (3) 3 (4) 4 (5) 5 (6) 6 (7) 7 (8) 8 (9) 9 (10) 10 (11) 11 Rechts (12) Kenne den/die Begriff(e) nicht (13) Trifft nicht zu (14) Weiß nicht (15) Keine Angabe
Voting	Wenn am nächsten Sonntag Bundestagswahl wäre und Du wahlberechtigt wärst, würdest Du an der Wahl teilnehmen?	(1) 1 Ja (0) 0 Nein (3) Keine Angabe
Party Vote	Welche Partei würdest Du wählen, wenn am kommenden Sonntag Bundestagswahl wäre?	(1) SPD (2) CDU (3) CSU (4) FDP (5) Bündnis 90/Die Grünen (6) Die Linke (7) AfD (8) NPD/Republikaner/Die Rechte (9) Andere, und zwar: (10) Keine Angabe

Table B.4: Political Issues Items (German)

Item	Question	Responses
Redistribution	Manche wollen weniger Steuern und Abgaben, auch wenn das weniger sozialstaatliche Leistungen bedeutet, andere wollen mehr sozialstaatliche Leistungen, auch wenn das mehr Steuern und Abgaben bedeutet. Wie ist Deine Position zu diesem Thema?	(1) 1 Weniger Steuern und Abgaben, auch wenn das weniger sozialstaatliche Leistungen bedeutet (2) 2 (3) 3 (4) 4 (5) 5 (6) 6 (7) 7 (8) 8 (9) 9 (10) 10 (11) 11 Mehr sozialstaatliche Leistungen, auch wenn das mehr Steuern und Abgaben bedeutet (12) Weiß nicht (13) Keine Angabe
Migration	Jetzt geht es um Zuzugsmöglichkeiten für Ausländer. Sollten die Zuzugsmöglichkeiten für Ausländer erleichtert oder eingeschränkt werden? Wie ist Deine Position zu diesem Thema?	(1) 1 Zuzugsmöglichkeiten für Ausländer sollten erleichtert werden (2) 2 (3) 3 (4) 4 (5) 5 (6) 6 (7) 7 (8) 8 (9) 9 (10) 10 (11) 11 Zuzugsmöglichkeiten für Ausländer sollten eingeschränkt werden (12) Weiß nicht (13) Keine Angabe
Climate Change	Manche meinen, dass die Bekämpfung des Klimawandels auf jeden Fall Vorrang haben sollte, auch wenn das dem Wirtschaftswachstum schadet. Andere meinen, dass das Wirtschaftswachstum auf jeden Fall Vorrang haben sollte, auch wenn das die Bekämpfung des Klimawandels erschwert. Wie ist Deine Position zu diesem Thema?	(1) 1 Vorrang für Bekämpfung des Klimawandels, auch wenn es dem Wirtschaftswachstum schadet (2) 2 (3) 3 (4) 4 (5) 5 (6) 6 (7) 7 (8) 8 (9) 9 (10) 10 (11) 11 Vorrang für Wirtschaftswachstum, auch wenn es die Bekämpfung des Klimawandels erschwert. (12) Weiß nicht (13) Keine Angabe

B.2.2 Items of Political Participation

Table B.5: Items of Political Participation (German)

Item	Question	Responses
Interest	Einmal ganz allgemein gesprochen: Wie stark interessierst Du dich für Politik?	(1) Sehr stark (2) Stark (3) Nicht so stark (4) Überhaupt nicht (5) Keine Angabe
Information	Wie häufig informierst Du Dich über politische Themen (z.B. in der Zeitung, im Internet etc.)?	(1) Täglich (2) Jede Woche (3) Jeden Monat (4) Seltener (5) Nie (6) Keine Angabe
Discussion	Wie häufig diskutierst Du über politische Themen?	(1) Täglich (2) Jede Woche (3) Jeden Monat (4) Seltener (5) Nie (6) Keine Angabe

B.2.3 Dictator Games and Political Issues

We played several dictator games with the adolescents in our sample. Dictator games have repeatedly been part of the panel, hence, the respondents are very familiar with the concept.

This part of the interview was done via a CAPI, where the interviewee made the allocation decisions so that the interviewer could not see which allocation was chosen by the interviewee. This was done to limit social-desirability bias.

First, the interviewer reads out the screen: "You can allocate stars between you and an organization. Each organization is promoting a specific issue. You have to make 3 decisions in the following. One important rule is that in the end only one of the 3 decisions counts. After you have made all the decisions, a random computer mechanism will decide

which decision counts. The commissioners of our study will make sure that the money worth of stars reaches the organizations." One star equals 0.80€, and so the interviewees can make in total up to 8€ in the dictator games. The screen is then turned to the interviewee so that the interviewer cannot see the screen. The interviewee is now prompted with the following screen:

The organizations are all based in Germany.
Information on what the respective organizations are committed to can be found under the respective decision field.

You now have **10 stars available for each decision** and can decide in each case how many stars you want for yourself and how many stars you want to give to the organization.

Please enter how many stars it should be in each case and ensure that all 10 stars are distributed.

☐ For me	☐ For an organization committed to environmental and climate protection
☐ For me	☐ For an organization that aims to narrow the gap between rich and poor people in Germany
☐ For me	☐ For an organization that supports refugees in Germany

Subsequently, the interviewees are asked to turn the screen back to the interviewer.

B.3 Item Nonresponse ESS

Table B.6: Socioeconomic Status Gaps in the European Social Survey

	(I) No Party Identification	(II) Little to No Interest in Politics	(III) DK Left-Right Placement	(IV) Not Voting
Low SES	0.057***	0.133***	0.048***	0.094***
	(0.012)	(0.018)	(0.007)	(0.009)
CH	0.043***	-0.148***	-0.044***	-0.022***
	(0.002)	(0.002)	(0.001)	(0.001)
CZ	0.203***	0.272***	-0.006***	0.057***
	(0.001)	(0.001)	(0.000)	(0.000)
EE	0.113***	0.012***	-0.018***	-0.051***
	(0.000)	(0.000)	(0.000)	(0.000)
FI	-0.095***	-0.151***	-0.058***	-0.123***
	(0.002)	(0.003)	(0.001)	(0.002)
FR	0.100***	0.048***	-0.015***	0.071***
	(0.001)	(0.002)	(0.001)	(0.001)
GR	0.175***	0.126***	-0.050***	-0.169***
	(0.002)	(0.003)	(0.001)	(0.002)
HR	0.124***	0.147***	-0.023***	0.014***
	(0.000)	(0.000)	(0.000)	(0.000)
HU	0.106***	0.174***	-0.030***	-0.062***
	(0.003)	(0.004)	(0.002)	(0.002)
IS	0.010***	-0.179***	-0.054***	-0.215***
	(0.001)	(0.002)	(0.001)	(0.001)
IT	0.235***	0.123***	0.066***	-0.068***
	(0.003)	(0.004)	(0.002)	(0.002)
LT	0.180***	0.063***	0.138***	0.022***
	(0.000)	(0.001)	(0.000)	(0.000)
ME	0.159***	0.196***	0.106***	-0.185***
	(0.001)	(0.001)	(0.000)	(0.000)
MK	0.118***	0.206***	0.172***	-0.096***
	(0.002)	(0.003)	(0.001)	(0.001)
NL	-0.010***	-0.280***	-0.062***	-0.192***
	(0.001)	(0.001)	(0.001)	(0.001)
NO	-0.144***	-0.081***	-0.096***	-0.195***
	(0.000)	(0.000)	(0.000)	(0.000)
PT	-0.063***	0.069***	0.038***	-0.032***
	(0.003)	(0.005)	(0.002)	(0.003)
SI	0.203***	0.058***	-0.010***	-0.017***
	(0.001)	(0.001)	(0.000)	(0.000)
SK	0.183***	0.055***	-0.093***	-0.048***
	(0.000)	(0.000)	(0.000)	(0.000)
Constant	0.456***	0.478***	0.072***	0.241***
	(0.006)	(0.009)	(0.003)	(0.004)
Observations	32999	33269	31481	30661

Notes: Data stems from the European Social Survey Wave 10 elicited between 2020-2022 (Integrated file, edition 2.0). The sample consists of respondents from Bulgaria, Croatia, Czechia, Estonia, Finland, France, Hungary, Lithuania, Slovakia, Slovenia, Switzerland, Greece, Iceland, Italy, Montenegro, North Macedonia, Netherlands, Norway, and Portugal. Low socioeconomic status (LSES) classification is based on low educational attainment (not having a school-leaving degree qualifying for University studies) and low income (household income below the 30% quantile in the respective country of the individual) following Kosse et al. (2020). In column (I) the dependent variable is a dummy for respondents who responded with either "No", "Don't know", or "No answer" on the question "Is there a particular political party you feel closer to than all the other parties?". The dependent variable in column (II) is a dummy for respondents who answered either "Not at all interested" or "Hardly interested" on the question "How interested would you say you are in politics?". The dependent variable in column (III) is a dummy for respondents who answered "Don't know" on the question "In politics people sometimes talk of "left" and "right". Where would you place yourself on this scale, where 0 means the left and 10 means the right?". The dependent variable in column (IV) is a dummy for respondents who responded with "No" on the question "Some people don't vote nowadays for one reason or another. Did you vote in the last national election?" The variable Low SES is a dummy for low socioeconomic status. Bulgaria is the reference category. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with clustered robust standard errors in parentheses.

B.4 Item Nonresponse on Issues

In addition, to the *DK* option in the three political issue items, the adolescents in the sample had the opportunity to resort to "No Answer" as a form of an item nonresponse. In Figure B.1, Figure B.2, and Figure B.3 the average share of item nonresponse by group is provided. For the political issue of redistribution in Figure B.1, we find that the high SES control group has a significantly ($p<0.05$) lower share of item nonresponse than the low SES control group. This is very close to the results, where we only use *DK* as a form of item nonresponse in Figure 2.7. Treatment completely mitigates the SES gap for the treatment group. For the political issue of migration in Figure B.2, we find no significant difference between any of the three groups at any conventional level of significance, which also replicates the findings of Figure 2.8. Figure B.3 shows a significant ($p<0.01$) SES gap between low SES adolescents and high SES adolescents in terms of item nonresponse on the issue of climate change. This is close to the pattern in Figure 2.9. For the treatment group, we now find a significant ($p<0.1$) difference to the low SES control group of approximately 6 percentage points, mitigating the SES gap to some extent but not closing it.

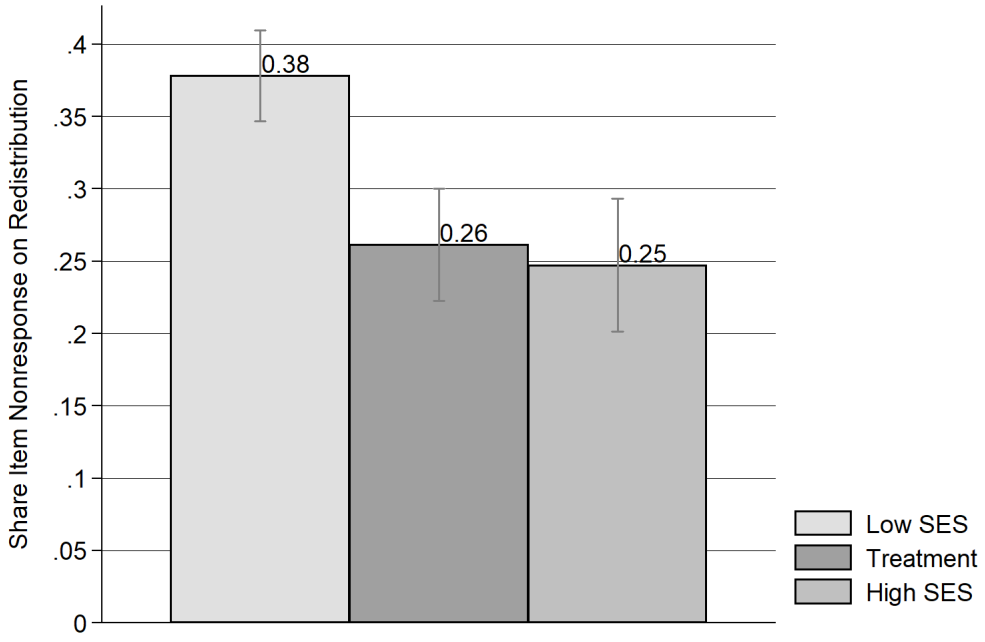

Figure B.1: Item Nonresponse Redistribution

The displayed variable is the share of respondents who answered "Don't Know" or "No Answer" on the question "Some want fewer taxes and contributions, even if that means fewer welfare state services; others want more welfare state services, even if that means more taxes and contributions. What is your position on this issue?". Respondents could state their attitude on an 11-point Likert scale ranging from "Fewer taxes and social security contributions, even if that means fewer welfare state benefits" to "More welfare state benefits, even if that means more taxes and contributions". Original German question: "Manche wollen weniger Steuern und Abgaben, auch wenn das weniger sozialstaatliche Leistungen bedeutet, andere wollen mehr sozialstaatliche Leistungen, auch wenn das mehr Steuern und Abgaben bedeutet. Wie ist Deine Position zu diesem Thema?". Results are from Wave 8, in which the respondents were between 15 and 17 years old. The number of observations is 457, with 238 individuals in the low SES (LSES) group, 130 individuals in the treatment group, and 89 individuals in the high SES (HSES) group. Error bars show standard errors of the means.

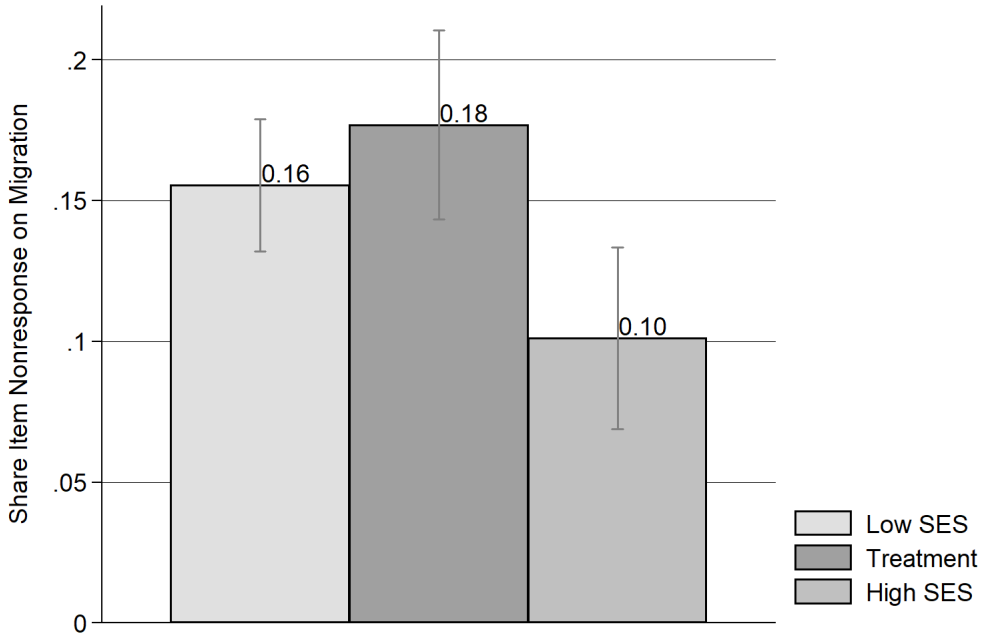

Figure B.2: Item Nonresponse Migration

The displayed variable is the share of respondents who answered "Don't Know" or "No Answer" on the question "Now we are talking about immigration opportunities for foreigners. Should immigration opportunities for foreigners be made easier or restricted? What is your position on this issue?". Respondents could state their attitude on an 11-point Likert scale ranging from "Immigration opportunities for foreigners should be made easier" to "Immigration opportunities for foreigners should be restricted". Original German question: "Jetzt geht es um Zuzugsmöglichkeiten für Ausländer. Sollten die Zuzugsmöglichkeiten für Ausländer erleichtert oder eingeschränkt werden? Wie ist Deine Position zu diesem Thema?". Results are from Wave 8 in which the respondents were between 15 and 17 years old. The number of observations is 457, with 238 individuals in the low SES (LSES) control group, 130 individuals in the treatment group, and 89 individuals in the high SES (HSES) control group. Error bars show standard errors of the means.

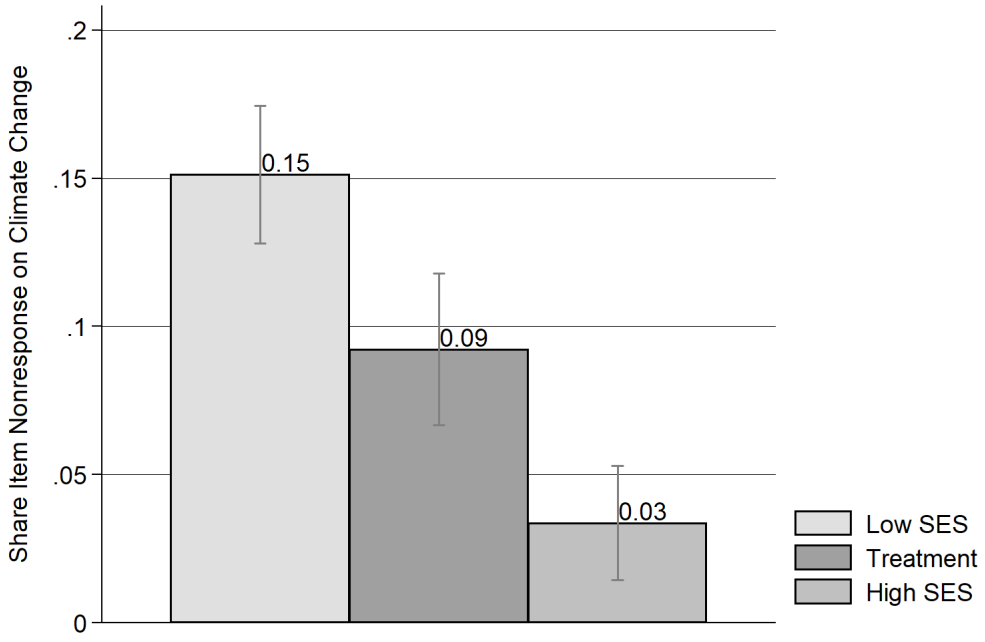

Figure B.3: Item Nonresponse Climate Change

The displayed variable is the share of respondents who answered "Don't Know" or "No Answer" on the question "Some believe that combating climate change should be a priority no matter what, even if it hurts economic growth. Others believe that economic growth should definitely be a priority, even if it makes it more difficult to combat climate change. What is your position on this issue?". Respondents could state their attitude on an 11-point Likert scale ranging from "Prioritize tackling climate change, even if it hurts economic growth" to "Prioritize economic growth, even if it makes it harder to combat climate change". Original German question: "Manche meinen, dass die Bekämpfung des Klimawandels auf jeden Fall Vorrang haben sollte, auch wenn das dem Wirtschaftswachstum schadet. Andere meinen, dass das Wirtschaftswachstum auf jeden Fall Vorrang haben sollte, auch wenn das die Bekämpfung des Klimawandels erschwert. Wie ist Deine Position zu diesem Thema?". Results are from Wave 8 in which the respondents were between 15 and 17 years old. The number of observations is 457, with 238 individuals in the low SES (LSES) control group, 130 individuals in the treatment group, and 89 individuals in the high SES (HSES) control group. Error bars show standard errors of the means.

B.5 Treatment Effects on Party Vote

To test whether the treatment affects not only the likelihood of expressing political attitudes but also political attitudes via, for instance, the likelihood to vote for a specific party, we analyze the effect of the treatment on stated party preferences. The adolescents in the sample were asked if they would vote if there were to be a federal election on Sunday. After filtering out the respondents who denied to vote, the remaining participants were asked "Which party would you vote for if there were to be a federal election next Sunday?" and could select from a list of parties or choose to write down another party, which was not on the list. Table B.7 displays the treatment effect on the average probability of voting for a specific party. Only in columns (II), (V), and (VII) do we find a significant treatment effect. In column (II), the dependent variable is voting for the conservative Union, so stating that the individuals would either vote for the CDU or the CSU, who form one parliamentary group. The high SES are also more likely to vote for the conservatives, but this is not significant. Column (V) shows that the individuals in the treatment group are more likely to state that they would vote for the left party (*Die Linke*) than the adolescents in the low SES control group. Furthermore, adolescents in the treatment group are less likely to state that they would vote for the right-wing populist AfD in column (VII) and by that they are close to high SES adolescents in the sample. We also observe some SES gaps in the likelihood to vote for the Green party in column (IV) and the AfD in column (VII). In general, it does not appear that treatment is shifting adolescents from the treatment group to any clear political party. This is in line with the findings of Holbein et al. (2022).

Table B.7: Treatment Effect on Party Identification

	(I) SPD	(II) Union	(III) FDP	(IV) Green	(V) Left	(VI) Other	(VII) AfD
Treatment	-0.007	0.061*	-0.011	-0.008	0.056**	-0.007	-0.016**
	(0.030)	(0.032)	(0.024)	(0.043)	(0.026)	(0.021)	(0.007)
High SES	-0.036	0.016	-0.006	0.139***	-0.008	0.033	-0.019***
	(0.027)	(0.029)	(0.024)	(0.047)	(0.017)	(0.025)	(0.007)
Constant	0.124***	0.093***	0.093***	0.370***	0.031**	0.068***	0.018***
	(0.028)	(0.027)	(0.022)	(0.041)	(0.016)	(0.023)	(0.007)
Observations	447	447	447	447	447	447	447

Notes: The dependent variable in each column is the average across three waves of the respondent stating to vote for the party named in each column. *Treatment* is a dummy variable, which is one if the child was in the treatment group and zero otherwise. *High SES* is a dummy, which is one if the child is from a high socioeconomic status household and zero otherwise. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

B.6 Treatment Effects on Attitudes

The treatment is not changing the political attitudes of the adolescents in our sample, but it is changing the likelihood of expressing political attitudes. Table B.8 demonstrates that there is no significant effect of the treatment on the left-right placement (column (I)), and that there is also no significant treatment effect on the attitude regarding the redistribution issue (column (II)), the migration issue (column (III)), and the climate change issue (column (IV)).

Table B.8: Treatment Effects on Attitudes

	(I) Left-Right Placement	(II) Redistribution	(III) Migration	(IV) Climate Change
Treatment	-0.105	-0.204	0.172	-0.107
	(0.190)	(0.337)	(0.341)	(0.302)
High SES	0.029	0.967***	0.238	0.521*
	(0.200)	(0.372)	(0.364)	(0.273)
Constant	4.317***	5.596***	7.044***	8.957***
	(0.174)	(0.334)	(0.321)	(0.248)
Observations	419	311	388	406

Notes: The dependent variable in column (I) is the response to the left-right self assessment item where the respondents could state their political leaning on an 11-point Likert scale from left to right. A higher value indicates identifying as more to the right, while a lower score indicates identifying as more to the left. The dependent variable in column (II) is the response to the redistribution item where the respondents could state their attitude on an 11-point Likert scale ranging from "Fewer taxes and social security contributions, even if that means fewer welfare state benefits" to "More welfare state benefits, even if that means more taxes and contributions". The dependent variable in column (III) is the response to the migration item where the respondents could state their attitude on an 11-point Likert scale ranging from "Immigration opportunities for foreigners should be restricted" to "Immigration opportunities for foreigners should be made easier". The dependent variable in column (IV) is the response to the climate change item where the respondents could state their attitude on an 11-point Likert scale ranging from "Prioritize economic growth, even if it makes it harder to combat climate change" to "Prioritize tackling climate change, even if it hurts economic growth". For columns (II) to (IV), a higher value indicates a leaning towards the latter-named option. *Treatment* is a dummy variable, which is one if the child was in the treatment group and zero otherwise. *High SES* is a dummy, which is one if the child is from a high socioeconomic status household and zero otherwise. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

B.7 Treatment Effects on Issue Importance

Table B.9: Issue Importance by Status

	(I) Redistribution	(II) Migration	(III) Climate Change
Treatment	-0.072	0.030	-0.006
	(0.084)	(0.089)	(0.098)
High SES	0.179**	0.331***	0.430***
	(0.074)	(0.082)	(0.093)
Constant	3.600***	3.418***	4.020***
	(0.071)	(0.078)	(0.087)
Observations	472	471	472

Notes: The dependent variable in column (I) is the average response in up to two waves on a 5-point Likert scale on the question "And how important is the issue of taxes and welfare state benefits to you? Please rate this from "very important" to "not at all important" using this list.", where a higher value indicates higher attributed importance. In column (II) the dependent variable is the average response in up to two waves on a 5-point Likert scale on the question "And how important is the topic of immigration possibilities for foreigners to you? Please rate this again using this list from "very important" to "not important at all".", where a higher value indicates a higher attributed importance. In column (III) the dependent variable is the average response in up to two waves on a 5-point Likert scale on the question "And how important is the issue of combating climate change and promoting economic growth to you? Again, please rate this from "very important" to "not at all important" using this list.", where a higher value indicates a higher attributed importance. *Treatment* is a dummy variable which is one if the child was in the treatment group and zero otherwise. *High SES* is a dummy, which is one if the child is from a household of high socioeconomic status and zero otherwise. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least squares estimates with location fixed effects, and robust standard errors in parentheses.

B.8 Treatment Effects on Political Participation

Table B.10: Treatment Effects on Political Participation

	(I) Interest	(II) Information	(III) Discussion	(IV) Voting
Treatment	-0.004	0.118	0.160	0.034
	(0.079)	(0.115)	(0.115)	(0.034)
High SES	0.410***	0.718***	0.681***	0.174***
	(0.083)	(0.113)	(0.104)	(0.023)
Constant	2.368***	3.222***	2.937***	0.821***
	(0.075)	(0.107)	(0.103)	(0.028)
Observations	482	482	481	482

Notes: The dependent variable in column (I) is the average response in up to three consecutive waves on the question "Generally speaking: How interested are you in politics?" Very strongly, strongly, not so strongly, or not at all?, to which the respondents could answer with "very strongly" (4), "strongly" (3), "not so strongly" (2), or "not at all" (1) so that a higher value indicates more political interest. The dependent variable in column (II) is the average response in up to three consecutive waves on the question "How often do you inform yourself about political topics (e.g., in the newspaper, on the internet, etc.)?". Respondents could answer with "daily" (5), "weekly" (4), "every month" (3), "seldom" (2), or "never" (1) so that a higher value indicates higher information seeking. The dependent variable in column (III) is the average in up to three consecutive waves on the question "How often do you discuss political topics?". Respondents could answer with "daily" (5), "weekly" (4), "every month" (3), "seldom" (2), or "never" (1) so that a higher value indicates more discussion of political topics. The dependent variable in column (IV) is the average response in up to three consecutive waves on the question "If there were a federal election next Sunday and you were eligible to vote, would you vote?". Respondents could answer with either "yes" (1) or "no" (0) so that a higher value indicates a higher likelihood to state that the respondent would vote. *Treatment* is a dummy variable, which is one if the child was in the treatment group and zero otherwise. *High SES* is a dummy, which is one if the child is from a high socioeconomic status household and zero otherwise. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

B.9 Intergenerational Transmission

Table B.11: Intergenerational Transmission & Treatment Effects

	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)	(IX)
	DK L-R Child			NA Party Vote Child			DK Redistribution Child		
DK L-R Parent	0.172**	0.160**	0.163*						
	(0.069)	(0.069)	(0.084)						
Treatment		-0.083***	-0.082***		-0.072**	-0.059		-0.106**	-0.115**
		(0.028)	(0.029)		(0.036)	(0.036)		(0.052)	(0.052)
Treatment × DK L-R Parent			-0.009						
			(0.157)						
NA Party Vote Parent				0.202**	0.188**	0.237**			
				(0.094)	(0.094)	(0.112)			
Treatment × NA Party Vote Parent						-0.183			
						(0.216)			
DK Redistribution Parent							-0.099	-0.072	-0.350***
							(0.226)	(0.241)	(0.047)
Treatment × DK Redistribution Parent									0.467
									(0.415)
Constant	0.114***	0.159***	0.159***	0.138***	0.177***	0.171***	0.305***	0.362***	0.369***
	(0.026)	(0.033)	(0.033)	(0.030)	(0.039)	(0.038)	(0.049)	(0.058)	(0.058)
Observations	382	382	382	322	322	322	342	342	342

Notes: The dependent variable *DK L-R Child* in columns (I) to (III) is the average share across up to three waves of adolescent respondents who answered "Don't Know" on the question "Many people use terms like 'left' and 'right' to denote different political attitudes. We have a scale here that runs from left to right. If you think about your political views, where would you place those views on this scale?". The explanatory variable *DK L-R Parent* in columns (I) to (III) is the average share across two waves of the primary caregivers who answered "Don't Know" on the same question. Respondents could state their political leaning on an 11-point Likert scale from left to right. The dependent variable *NA Party Vote Child* in columns (IV) to (VI) is the average share across three waves of the respondents who answered *NA* as a form of item nonresponse on the question which party they would vote for. The variable *NA Party Vote Parent* is the average share across two consecutive waves of main caregivers who stated *NA* on the question which party they would vote for. The dependent variable *DK Redistribution Child* is the share of adolescent respondents who answered "Don't Know" on the redistribution/taxation item in Wave 8. The variable *DK Redistribution Parent* is a dummy variable that takes 1 if the main caregiver responded with "Don't Know" on the redistribution/taxation item in Wave 8. One, two, and three stars denote statistical significance at the 10%, 5%, and 1% levels. Coefficients are ordinary least square estimates with location fixed effects, and robust standard errors in parentheses.

Appendix C

Appendix to Chapter 3

C.1 Tables

Table C.1: Correlation Between Similarity Measures

	AfD Cosine Similarity					
	(1)	(2)	(3)	(4)	(5)	(6)
Höcke Cosine Similarity	0.809***	0.716***	0.738***			
	(0.006)	(0.014)	(0.013)			
Populist Dictionary Words				0.212***	0.106***	0.105***
				(0.007)	(0.005)	(0.006)
Topic Controls		✓	✓		✓	✓
Month FE		✓	✓		✓	✓
Speaker FE		✓	✓		✓	✓
Without AfD & FDP			✓			✓
Observations	28,998	25,803	22,662	28,998	25,803	22,662

Notes: Table reports coefficients and standard errors from linear regressions. The dependent variable is the standardized average cosine similarity to AfD speeches after pre-processing and tf-idf vectorization. The independent variables are the standardized average cosine similarity to speeches by Björn Höcke after pre-processing and tf-idf vectorization and the standardized number of sentences with words from the German-language populist dictionary by Gründl (2022). The sample comprises all speeches that were held in the German Bundestag between 2013 and 2019 with a minimum length of 100 terms. In columns (3) and (6) we exclude all speeches by members of the AfD, the FDP as well as non-affiliated members. In columns (2), (3), (5) and (6) standard errors are furthermore clustered on the committee times electoral period level. Robust standard errors reported in parentheses: $* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$.

Table C.2: Summary Statistics

	Mean	Std. Dev.	Min.	Max.	Obs.
PANEL A: *Similarity Measures*					
Avg. Cosine Similarity to AfD (min. 100 terms)	0.00	1.00	-2.61	5.68	29,120
Avg. Cosine Similarity to Höcke (min. 100 terms)	0.00	1.00	-2.08	7.79	29,120
Populist Dictionary Score (min. 100 terms)	0.00	1.00	-0.52	17.36	28,998
PANEL B: *Speech Characteristics*					
No. Terms	450.30	370.56	1	4513	39,310
No. Sentences	30.85	25.57	0	387	39,310
PANEL C: *Speaker Characteristics*					
Female	0.34	0.47	0	1	39,117
Age	51.10	10.44	24	81	39,117
East Germany	0.21	0.41	0	1	35,035
Academic Title	0.19	0.40	0	1	39,117
AfD First Vote Share	11.41	5.28	4	37	33,679
Distance to AfD First Vote	13.55	12.43	0	49	33,679
PANEL D: *Committee Shares by Party (19th Bundestag, 2017-21)*					
Share CDU/CSU Members (19th BT)	0.35	0.01	0.33	0.38	27,937
Share SPD Members (19th BT)	0.22	0.01	0.18	0.24	27,937
Share AfD Members (19th BT)	0.13	0.01	0.11	0.14	27,937
Share FDP Members (19th BT)	0.11	0.01	0.10	0.14	27,937
Share Left Members (19th BT)	0.10	0.01	0.07	0.12	27,937
Share Green Members (19th BT)	0.09	0.01	0.07	0.12	27,937
PANEL E: *Committee Shares by Party (18th Bundestag, 2013-17)*					
Share CDU/CSU Members (18th BT)	0.48	0.01	0.44	0.50	28,324
Share SPD Members (18th BT)	0.31	0.01	0.28	0.36	28,324
Share Left Members (18th BT)	0.10	0.01	0.07	0.13	28,324
Share Green Members (18th BT)	0.10	0.01	0.07	0.13	28,324
PANEL F: *Party Shares*					
AfD	0.07	0.25	0.00	1.00	39,310
CDU/CSU	0.30	0.46	0.00	1.00	39,310
SPD	0.20	0.40	0.00	1.00	39,310
Greens	0.21	0.41	0.00	1.00	39,310
Left	0.16	0.37	0.00	1.00	39,310
FDP	0.06	0.23	0.00	1.00	39,310
Independent MPs	0.00	0.00	0.00	0.00	39,310

Table C.3: Committees in the 18th Bundestag (2013-2017)

Committee Name	Total	CDU/CSU	SPD	Linke	Greens
Economic Affairs and Energy	46	22	14	5	5
Labour and Social Affairs	41	20	13	4	4
Budget	41	20	13	4	4
Transport	41	20	13	4	4
Legal Affairs and Consumer Protection	39	19	12	4	4
Finance	37	18	11	4	4
Foreign Affairs	37	18	11	4	4
Health	37	18	11	4	4
Internal Affairs and Community	37	18	11	4	4
Environment, Nature Conservation and Nuclear Safety	36	17	11	4	4
Family Affairs, Senior Citizens, Women and Youth	36	17	11	4	4
Education, Research and Technology Assessment	34	17	11	3	3
European Union Affairs	34	17	11	3	3
Food and Agriculture	34	17	11	3	3
Defence	32	16	10	3	3
Petitions	26	12	8	3	3
Economic Cooperation and Development	21	10	7	2	2
Culture and Media Affairs	18	9	5	2	2
Sports	18	9	5	2	2
Tourism	18	9	5	2	2
Digital Agenda	16	7	5	2	2
Human Rights and Humanitarian Aid	16	7	5	2	2
Elections, Immunity and the Rules of Procedure	14	7	5	1	1

Notes: The table provides the total number of committee members as well as the total number of committee seats allocated to the different parliamentary groups in the 18th Bundestag (2013-2017).

Table C.4: Committees in the 19th Bundestag (2017-2021)

Committee Name	Total	CDU/CSU	SPD	AfD	FDP	Linke	Greens
Economic Affairs	49	17	11	6	5	5	5
Labour and Social Affairs	46	16	10	6	5	5	4
Foreign Affairs	45	16	10	6	5	4	4
Internal Affairs and Community	45	16	10	6	5	4	4
Budget	44	15	10	6	5	4	4
Legal Affairs and Consumer Protection	43	15	9	6	5	4	4
Transport	43	14	10	6	5	4	4
Education, Research and Technology Assessment	42	15	9	5	5	4	4
Finance	41	14	9	5	5	4	4
Health	41	14	9	5	5	4	4
Family Affairs, Senior Citizens, Women and Youth	40	14	9	5	4	4	4
Environment, Nature Conservation and Nuclear Safety	39	13	9	5	4	4	4
European Union Affairs	39	14	8	5	4	4	4
Food and Agriculture	38	13	8	5	4	4	4
Defence	36	12	8	5	4	4	3
Petitions	28	9	6	4	3	3	3
Economic Cooperation and Development	24	9	5	3	3	2	2
Housing, Urban Development, Building and Local Government	24	9	5	3	3	2	2
Digital Agenda	21	7	5	3	2	2	2
Culture and Media Affairs	18	6	4	2	2	2	2
Sports	18	6	4	2	2	2	2
Tourism	18	6	4	2	2	2	2
Human Rights and Humanitarian Aid	17	6	3	2	2	2	2
Elections, Immunity and the Rules of Procedure	14	5	3	2	2	1	1

Notes: The table provides the total number of committee members as well as the total number of committee seats allocated to the different parliamentary groups in the 19th Bundestag (2017-2021).

Table C.5: Selection into Committees

	Share AfD Members	
	(1)	(2)
Female	-0.166**	-0.125*
	(0.066)	(0.068)
Age	-0.005*	-0.006*
	(0.003)	(0.003)
East Germany	0.007	-0.020
	(0.084)	(0.134)
Academic Title	-0.082	-0.106
	(0.082)	(0.084)
AfD Vote Share		0.004
		(0.009)
Distance to AfD		0.002
		(0.003)
Constant	13.217***	13.171***
	(0.156)	(0.186)
Observations	509	486

Notes: Table reports coefficients and standard errors from linear regressions. The sample comprises all members represented in the 19th German Bundestag that were full member of at least one parliamentary committee. Members affiliated with the AfD are excluded from the sample. The dependent variable measures the average of the share of AfD members (in percent) across all committees of which a politician is a full member. *Age* refers to the age of a politician in years as of the opening of the 19th German Bundestag (October 24, 2017). *East Germany* is a dummy variable equal to 1 if the MP was elected in a state of former East Germany. *Academic Title* is a dummy variable equal to 1 if the MP uses a doctoral or professorial title in her name. *AfD Vote Share* measures the constituency vote (first vote) share of the AfD (in percent) in an MP's electoral district in the 2017 federal election. *Distance to AfD* measures the absolute distance of the MP's own constituency vote (first vote) share to the AfD vote share (in percentage points) in the 2017 federal election. Robust standard errors reported in parentheses: $* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$.

Table C.6: Full Accommodation Effects

	Cosine Similarity to speeches by ...					
	(1) AfD	(2) FDP	(3) CDU/CSU	(4) SPD	(5) Greens	(6) Left
Share AfD × Post	3.356*					
	(1.932)					
Share FDP × Post		3.411				
		(2.511)				
Share CDU/CSU × Post			0.079			
			(0.773)			
Share SPD × Post				-0.288		
				(1.070)		
Share Greens × Post					1.268	
					(1.305)	
Share Left × Post						-0.287
						(1.047)
Topic Controls	✓	✓	✓	✓	✓	✓
Month FE	✓	✓	✓	✓	✓	✓
Speaker FE	✓	✓	✓	✓	✓	✓
Observations	17,383	17,383	14,688	17,322	17,689	18,285

Notes: Table reports coefficients and standard errors from linear regressions as laid out in Equation 3.4. The independent variable of interest is the interaction between the (average) share of respective party members of all committees in which a politician is a full member and an indicator whether the speech was recorded in the 19th German Bundestag (2017-2021). The dependent is the standardized average cosine similarity to speeches by members of the respective party after preprocessing and tf-idf vectorization. Topic controls are derived from a 20-topic LDA model. The sample comprises plenary speeches by members of the German Bundestag held between October 2013 and December 2019 with a minimum length of 100 terms from parties that were represented throughout the whole period (CDU/CSU, SPD, The Left, and Alliance90/The Greens), excluding members of the respective party. Standard errors clustered at the committee times electoral period level are reported in parentheses: $* \ p < 0.10$, $** \ p < 0.05$, $*** \ p < 0.01$.

C.2 Figures

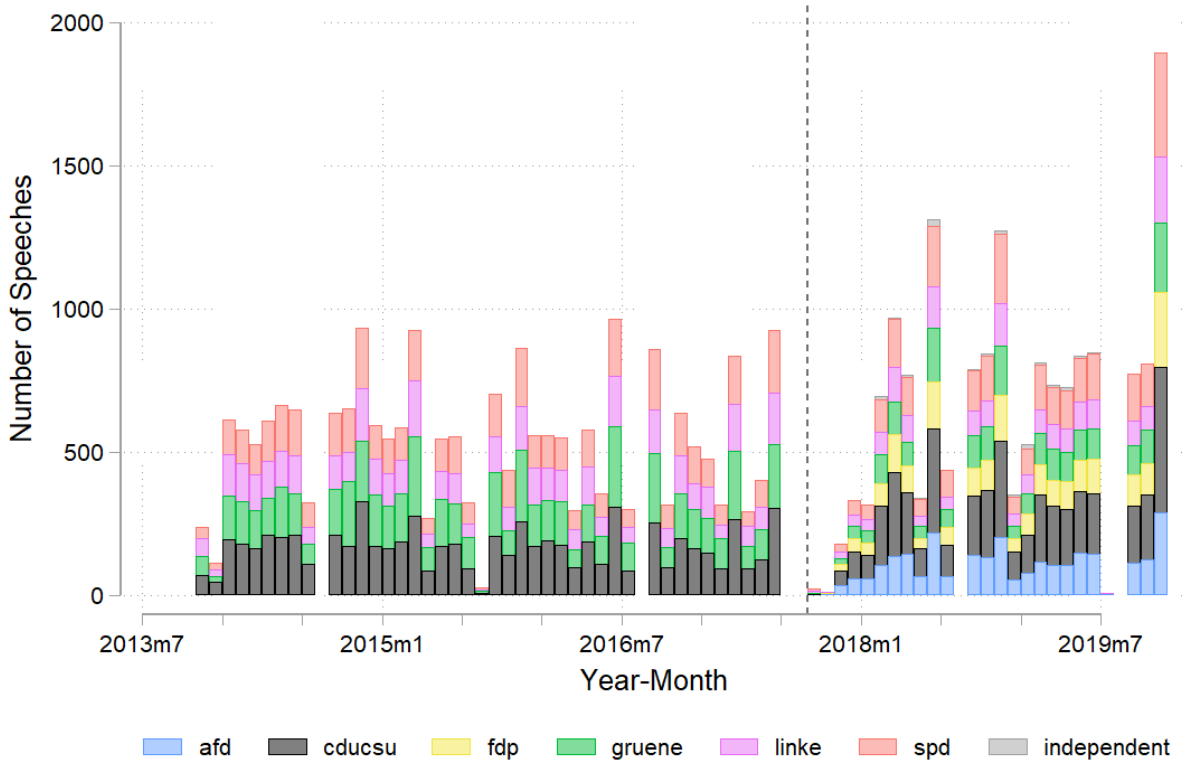

Figure C.1: Distribution of Speeches by Month & Party

Figure shows distribution of all speeches in the German Bundestag between October 2013 and December 2019 aggregated by month and party affiliation of the speaker. "Independent" refers to non-affiliated MPs (*fraktionslos*) that do not belong to a parliamentary party group at the time of their speech.

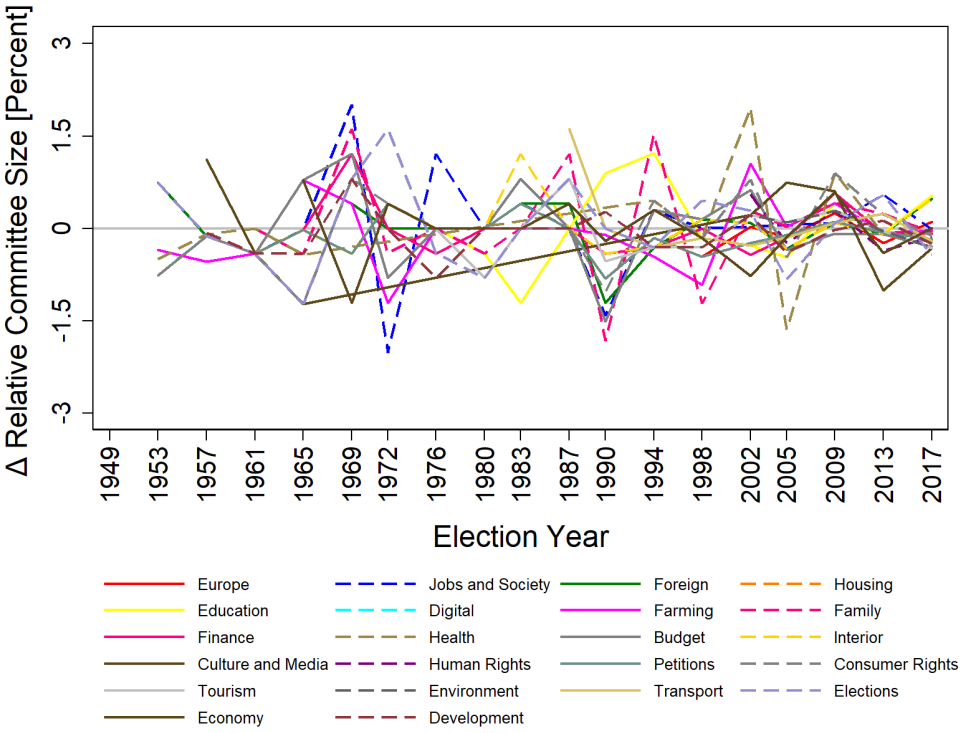

Figure C.2: Changes in Relative Committee Sizes

Graph shows percentage changes in relative committee sizes over time for all committees in the Bundestag. Sizes are relative to the size of the Bundestag in the respective legislative period. The committees displayed are committees as in place of 2018. Committees were reshuffled and reorganized several times over time.

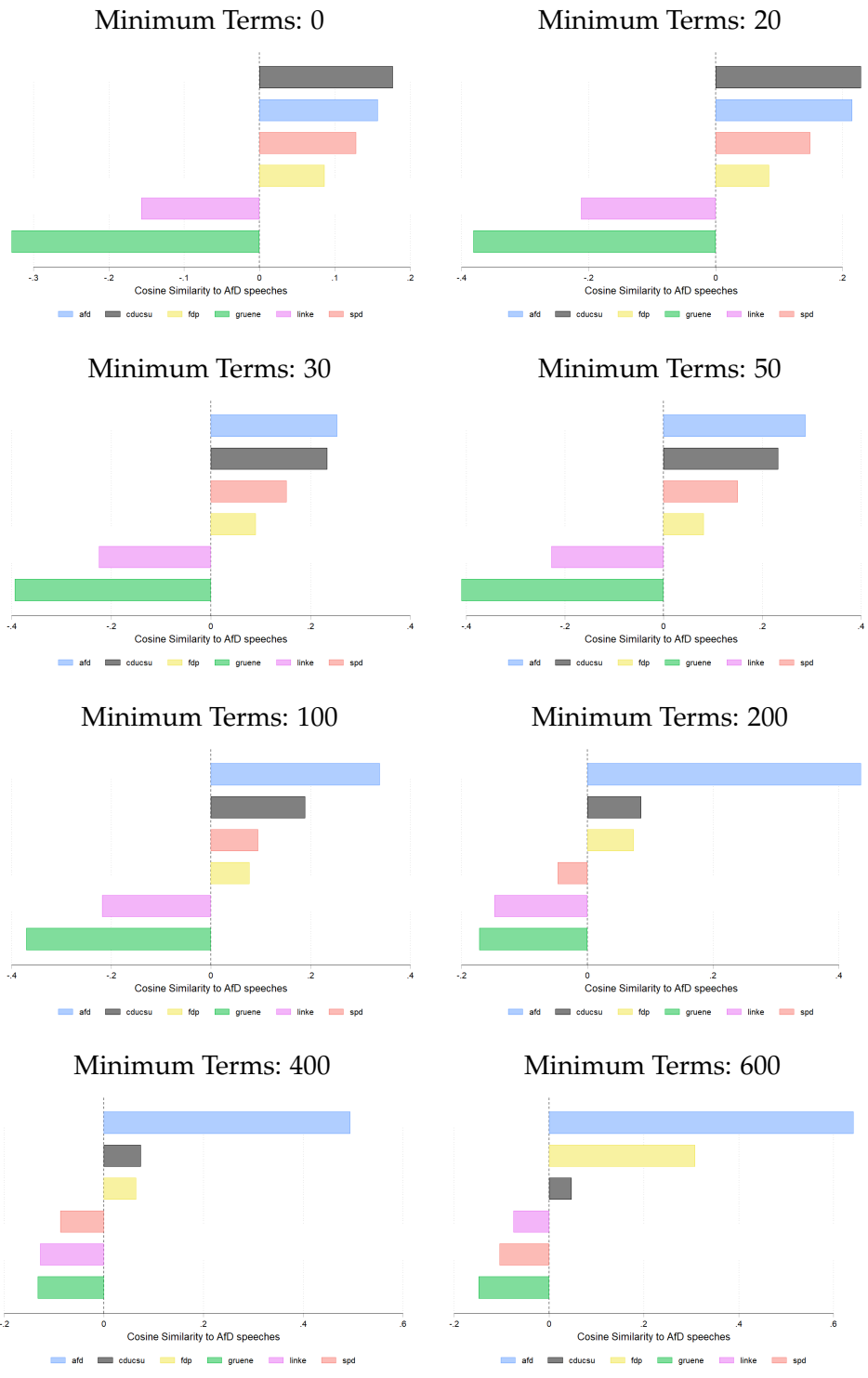

Figure C.3: AfD Cosine Similarity for Different Speech Lengths

Graphs show the average standardized cosine similarity to AfD speeches for each party for different minimum terms restrictions on speeches. Sample includes all speeches in the German Bundestag between October 2013 and December 2019.

C.3 Technical Details

Our data management is mainly done in `python` (van Rossum 1995) with some packages used in `R` (R Core Team 2022) if provided by the respective authors. To manage our workflow and allow for smooth integration of code from different languages we use `pytask` (Raabe 2020).

C.3.1 Pre-processing

As a first step of the pre-processing, we fix some regularly occurring errors in the raw text data where words were not separated by blanks. To fix these we use `language-tool -python` , the python wrapper of `LanguageTool`, an open-source grammar tool and spell checker.[1] Next, we remove punctuation including German-specific and context-specific characters. We then remove stopwords and lemmatize the tokens. As the `nltk` database for German stopwords is very limited we use a more comprehensive set from https://github.com/solariz/german_stopwords. For the lemmatization we use the `Hanover Tagger` (Wartena 2019), a lemmatizer and POS tagger specifically designed for the German language. We refrain from stemming as it can lead to undesired oversimplification. Especially when thinking about inclusive language, only using male or using both versions of a noun might matter. Also, Gründl (2022) points out, that stemming in a German context can lead to words becoming indistinguishable (e.g., Bürger (citizen), bürgen (to vouch), and Burg (castle)).

C.3.2 Similarity Measures

To obtain cosine similarity measures, we use the `TfidfVectorizer` package from the `scikit learn` (Pedregosa et al. 2011) module to create the tf-idf-matrix. Further, we `transform` the matrix to obtain an array for each speech. Data frame and matrix manipulations to calculate the averaged similarity scores to each party and Höcke are done with `pandas` (Wes

[1] https://pypi.org/project/language-tool-python/ (Accessed March 8, 2023).

McKinney 2010) and `numpy` (Harris et al. 2020).

For the populist dictionary scores we use the code provided by Gründl (2022) and his `R` packages `popdictR` (Gründl 2020b), `multidictR` (Gründl 2020a) and `regexhelpeR` (Gründl 2020c).[2] It processes the raw text on a sentence level and uses regular expression to identify populist words or phrases. It then counts the number of sentences containing populist content. A list of the dictionary entries found in the speeches can be found in Table C.7.

C.3.3 Topic Modelling

We use `gensim` (Rehurek and Sojka 2011) and its LDA model for the LDA-Topic modelling. We prune at a 1% level. The derived topics and associated top 20 words translated to English and in German can be found in Table C.8.

[2] https://github.com/jogrue/popdictR (Accessed March 8, 2023).

Table C.7: Populist Dictionary Entries Following Gründl (2022)

Anti-elitism

so-called/sogenannte (4,696) | to finance/finanzieren (2,080) | admit/zugeben (631) | bureaucrat/bürokrat (513) | to be ashamed/schämen (467) | to deceive/täuschen (465) | audacious/dreist (183) | corrupt/korrupt (155) | to manipulate/manipulieren (141) | circles/kreisen (140) | deception/täuschung (119) | mendacious/verlogen (74) | aloof/abgehoben (71) | to mock/verhöhnen (68) | erroneously/fälschlicherweise (66) | to lecture/belehren (65) | to fiddle/tricksen (63) | dishonest/unehrlich (63) | outrageous/unverschämt (59) | to patronize/bevormunden (58) | unworldly/weltfremd (47) | far from reality/realitätsfern (47) | greedy/gierig (42) | propaganda/propaganda (42) | arrogant/arrogant (41) | disaster/desaster (39) | ludicrous/aberwitzig (38) | technocrat/technokrat (37) | to presume to do/sich anmaßen (37) | centralist/zentralisten (35) | centralistic/zentralistisch (35) | elite/elite (35) | presumptuous/anmaßend (33) | capitalist/kapitalist (31) | insanity/irrsinn (29) | encrusted/verkrustet (24) | indoctrination|instruction/belehrung (23) | lack of contact with reality/realitätsferne (23) | complacent/selbstgefällig (21) | ludicrous/wahnwitzig (21) | from above/von oben herab (19) | quixotic/lebensfremd (18) | banker/bänker (17) | dilettante/dilettantisch (17) | mafia/mafia (16) | absurdity/irrwitz (16) | speculator/spekulant (15) | out of touch with reality/realitätsfremd (14) | mob/pöbel (14) | complacent/selbstzufrieden (13) | arrogant/überheblich (12) | bosses/bosse (11) | fiddle/kungel (11) | to dare/erdreisten (9) | pedantic/oberlehrerhaft (7) | head teacher (in the meaning of a smart aleck)/oberlehrer (7) | at the expense of the Germans/zu lasten der deutschen (7) | opportunists/opportunisten (7) | to corrupt/korrumpieren (6) | remote from the people/bürgerfern (5) | disgrace/schande (4) | spineless/rückgratlos (3) | failing/versagend (3) | unprincipled/prinzipienlos (3) | haughty/hochmütig (2) | insatiable/nimmersatt (2) | remote from everyday life/lebensfern (2) | traitor to the nation/the people/volksverräter (2) | bigwig/bonze (2) | haggling/geschacher (1) | inane/hirnverbrannt (1) | pseudo-parties/pseudo-parteien (1) | government failure/staatsversagen (1) | stuck-up/hochnäsig (1) | establishment/establishment (1) | jet set/schickeria (1) |

Table continued on next page

Table C.7: Populist Dictionary Entries Following Gründl (2022) (continued)

Sovereignty

dictate/diktat (87) | undemocratic/undemokratisch (82) | anti-democratic/antidemokratisch (49) | allowed to say/sagen dürfen (35) | the citizens wish|want|demand/bürger fordern|möchten|mögen|verlangen|beanspruchen|wünschen (23)[3] | majority/mehrheit (10) | high-handed/selbstherrlich (9) | plebiscitary/plebiszitär (8) | the people demand|want|wish|/das volk will|fordert|möchte|mag|verlangt|beansprucht|wünscht (5) | for the|our people/für das|unser volk (2) | power-hungry/machtversessen (2) | party dictatorship/parteiendiktatur (1) | plebiscite/volksentscheid (1) |

People-centrism

tradition/tradition (150) | steadfast/standhaft (28) | average german/durchschnittlicher deutscher (1)| our citizens/unsere bürger (1) | working germans/arbeitende deutsche (1) |

Notes: All entries translated to English by the authors, original German version after the "/". The frequency of appearance is displayed in brackets behind the phrase. For better readability, the phrases were changed to their infinitives or non-declinated forms. The regex search patterns cover all different cases of declinations and conjugations for both singular and plural. An extensive list of regex expressions can be found in the online appendix of Gründl (2022). The categories are based on the populist ideology classification from Gründl (2022).

[3]To avoid confusion and for better readability, four different versions with different syntax from the dictionary were combined into one.

Table C.8: LDA Topic Modelling – Top 20 Words for Each Topic

Topic 1
european/europäisch | europe/europa | eu | china | union | russia/russland | together/gemeinsam | national | ukraine | interest/interesse | france/frankreich | cooperation/zusammenarbeit | russian/russisch | african/afrikanisch | level/ebene | partner | germany/deutschland | greece/griechenland | great britain/großbritannien | member state/mitgliedstaat
Topic 2
topic/thema | area/bereich | address/ansprechen | minister | point/punkt | recognition/erkenntnis | be interested in/interessieren | request/nachfrage | address/angehen | discuss/diskutieren | hundred thousand/hunderttausend | responsibility/zuständigkeit | evaluate/bewerten | warn/warnen | extension/ausweitung | clock/uhr | discuss/besprechen | affect/betreffen | keyword/stichwort | to be entitled to sth./zustehen
Topic 3
climate protection/klimaschutz | co | energy/energie | climate change/klimawandel | global | goal/ziel | ecological/ökologisch | renewable/erneuerbar | expansion/ausbau | reach/erreichen | energy revolution/energiewende | green/grün | globally/weltweit | amendment/novelle | percent/prozent | science/wissenschaft | paris | net/netz | international | measure/maßnahme
Topic 4
colleague/kollegin | dear/liebe | year/jahr | large/groß | accomplish/schaffen | important/wichtig | strong/stark | considerable/deutlich | together/gemeinsam | right/richtig | provide/stellen |cordial/herzlich | to care/sorgen | example/beispiel | goal/ziel | measure/maßnahme | good/gut | country/land | show/zeigen | support/unterstützen

Table continued on next page

Table C.8: LDA Topic Modelling – Top 20 Words for Each Topic (continued)

Topic 5
company/unternehmen | investment/investition | economy/wirtschaft | germany/deutschland | to invest/investieren |social/sozial | development/entwicklung | economic/wirtschaftlich | employment/arbeitsplatz | region | future/zukunft | infrastructure/infrastruktur | to function/funktionieren | market/markt | innovation | competition/wettbewerb | industry/industrie | business/betrieb | percent/prozent | create/schaffen
Topic 6
security/sicherheit | firstly/erstens | secondly/zweitens | date/datum | net/netz | thirdly/drittens | it | police/polizei | control/kontrolle | pact/pakt | perpetrator/täter | communication/kommunikation | to function/funktionieren | federal office/bundesamt | dependent/abhängig | efficient/effizient | data protection/datenschutz | withdraw/entziehen | equipment/ausstattung | judiciary/justiz
Topic 7
soldier/soldat | german armed forces/bundeswehr | mission/einsatz | female soldiers/soldatinnen | turkey/türkei | peace/frieden | armed/bewaffnet | international | nato | security/sicherheit | nation | region | conflict/konflikt | war/krieg | military/militärisch | iran | foreign minister/außenminister | humanitarian/humanitär | united/vereinter | un
Topic 8
woman/frau | work/arbeit | nursing/pflege | social/sozial | pension/rente | parents/eltern | payment/leistung | income/einkommen | wage/lohn | labor market/arbeitsmarkt | employed/beschäftigt | employee/arbeitnehmer | age/alter | statutory/gesetzlich | man/mann | welfare state/sozialstaat | percent/prozent | basic income/grundsicherung | retiree/rentner | mother/mutter

Table continued on next page

Table C.8: LDA Topic Modelling – Top 20 Words for Each Topic (continued)

Topic 9
regulation/regelung | procedure/verfahren | case/fall | rule/regel | affected/betroffen | legal/rechtlich | authority/behörde | possibility/möglichkeit | present/vorliegend | decision/entscheidung | agriculture/landwirtschaft | interest/interesse | protection/schutz | high/hoch | person | so-called/sogenannter | public/öffentlich | legal/gesetzlich | basically/grundsätzlich | substantial/erheblich
Topic 10
law/gesetz | draft law/gesetzentwurf | hearing/anhörung | federal council/bundesrat | abolition/abschaffung | expert/experte | brandenburg | serious/seriös | to consult/beraten | state government/landesregierung | consultation/beratung | infer to from/entnehmen | agree with/zustimmen | consent/zustimmung | contain/enthalten | boss/chef | to pass/verabschieden | improvement/verbesserung | parliamentary/parlamentarisch | to introduce/einbringen
Topic 11
euro | billion/milliarde | year/jahr | percent/prozent | million | money/geld | country/land | budget/haushalt | federation/bund | municipality/kommune | funds/mittel | to pay/zahlen | costs/kosten | additionally/zusätzlich | minister(f.)/ministerin | tax/steuer | to increase/erhöhen | disposal/verfügung | city/stadt | research/forschung
Topic 12
human/mensch | life/leben | country/land | human right/menschenrecht | refugee/flüchtling | aid/hilfe | to help/helfen | poor/arm | million | perspective/perspektive | group/gruppe | affected/betroffen | poverty/armut | place/ort | peaceful/friedlich | situation | safe/sicher | city/stadt | escape/flucht | distress/not

Table continued on next page

Table C.8: LDA Topic Modelling – Top 20 Words for Each Topic (continued)

Topic 13
question/frage | to believe/glauben | problem | to know/wissen | to speak/sprechen | to talk/reden | to lead/führen | to put/stellen | president/präsident | correct/richtig | year/jahr | debate/debatte | to mean/heißen | to get/bekommen | point/punkt | wrong/falsch | already/schon | big/groß | time/zeit | house/haus
Topic 14
child/kind | family/familie | education/bildung | school/schule | training/weiterbildung | bafög | north rhine/nordrhein | westphalia/westfalen | university/hochschule | disability/behinderung | to learn/lernen | specialist/fachkraft | performance/leistung | child benefit/kindergeld | quality/qualität | minister (f.)/ministerin | chance | qualification/qualifikation |daycare/kita | trained/ausgebildet
Topic 15
afd | cdu | csu | party/partei | spd | tax payer/steuerzahler | fdp | seehofer | to govern/regieren | credit/kredit | bank | to safe/retten | to sign/unterscheiden | bavaria/bayern | election campaign/wahlkampf | to defend/verteidigen | tax money/steuergeld | elections/wahlen | capital/kapital | interest/zins
Topic 16
germany/deutschland | german/deutsch | lady/dame | citizen/bürger | country/land | state/staat | political/politisch | policy/politik | president/präsident | world/welt | democracy/demokratie | digital | victim/opfer | freedom/freiheit | value/wert | right/recht | citizens (f.)/bürgerinnen | to show/zeigen | fight/kampf | fear/angst

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Table C.8: LDA Topic Modelling – Top 20 Words for Each Topic (continued)

Topic 17
request/antrag ∣ fdp ∣ german parliament/bundestag ∣ parliamentary group/fraktion ∣ green/grün ∣ colleague (f.)/kollegin ∣ spd ∣ dear/liebe ∣ parliament/parlament ∣ leftist/linker ∣ proposal/vorschlag ∣ public/öffentlich ∣ committee/ausschuß ∣ to agree/zustimmen ∣ parliamentary/parlamentarisch ∣ votes/stimmen ∣ debate/debatte ∣ commission/kommission ∣ president (f.)/präsidentin ∣ delegated/abgeordnet
Topic 18
federal government/bundesregierung ∣ finally/endlich ∣ government/regierung ∣ leftists/linke ∣ greens/grüne ∣ coalition/koalition ∣ submit/vorlegen ∣ change/änderung ∣ to promise/versprechen ∣ urgent/dringend ∣ real/echt ∣ to change/ändern ∣ draft/entwurf ∣ massive/massiv ∣ to suffice/reichen ∣ to wait/warten ∣ to fail/scheitern ∣ union ∣ plan/vorhaben ∣ reform
Topic 19
usa ∣ contract/vertrag ∣ negotiation/verhandlung ∣ agreement/abkommen ∣ us ∣ to unite/vereinigen ∣ evening/abend ∣ american/amerikanisch ∣ young people/jugendliche ∣ relevant ∣ recognisable/erkennbar ∣ international ∣ american/amerikaner ∣ america/amerika ∣ position/stellung ∣ world/welt ∣ trade/handel ∣ to negotiate/verhandeln ∣ state/staat ∣ partner
Topic 20
report/bericht ∣ supply/versorgung ∣ information ∣ complex/komplex ∣ consensus/konsens ∣ request/anfrage ∣ restriction/einschränkung ∣ template/vorlage ∣ ensured/versichert ∣ happy/glücklich ∣ clarification/aufklärung ∣ left-wing fraction/linksfraktion ∣ answered/beantwortet ∣ to inform/informieren ∣ access/zugang ∣ patient ∣ digitization/digitalisierung ∣ fund/kasse ∣ ministry/ministerium ∣ health insurance/krankenkasse

Eidesstattliche Versicherung

Ich versichere hiermit eidesstattlich, dass ich die vorliegende Arbeit selbständig und ohne fremde Hilfe verfasst habe. Die aus fremden Quellen direkt oder indirekt übernommenen Gedanken sowie mir gegebene Anregungen sind als solche kenntlich gemacht. Die Arbeit wurde bisher keiner anderen Prüfungsbehörde vorgelegt und auch noch nicht veröffentlicht. Sofern ein Teil der Arbeit aus bereits veröffentlichten Papers besteht, habe ich dies ausdrücklich angegeben.

Ort, Datum: München, 14.03.2023

Julian Christopher Heid