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How information about inequality impacts support for school closure policies: Evidence from the pandemic

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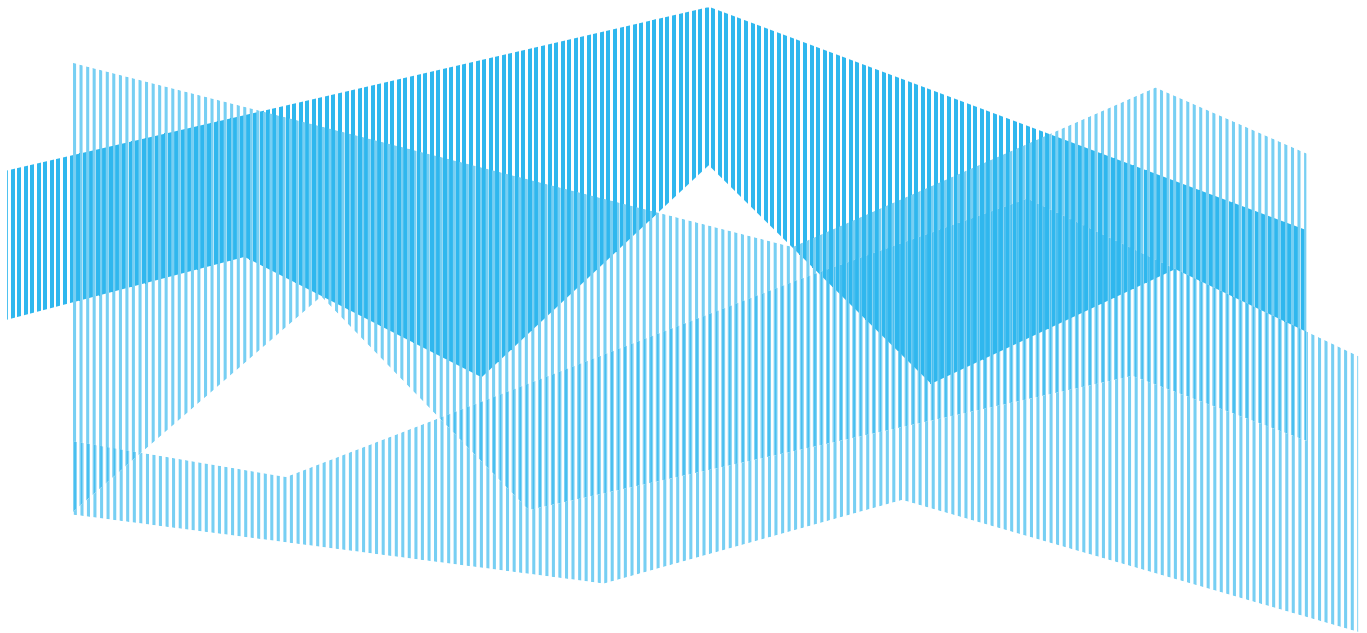
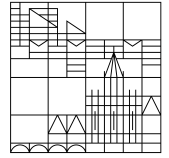
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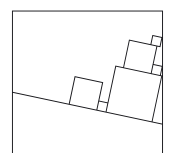
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How information about inequality impacts support for school closure policies.

Evidence from the pandemic*

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Abstract

The increase in inequalities during the ongoing COVID-19 pandemic has been the topic of intense scholarly and public debate. School closures are one of the containment measures that have been debated most critically in this regard. What drives support for school and daycare/kindergarten closures during a public health crisis such as the current COVID-19 pandemic? More specifically, do inequality concerns affect this support? To identify causal linkages between awareness of inequalities and support for school and daycare/kindergarten closures, we use a survey experiment with information treatment, in which we randomly assign information designed to prime the respondents to think about either education inequality, gender inequality, or both. Based on an original survey experiment involving more than 3,000 respondents, conducted in spring 2021 at the end of a long lockdown in Germany, our findings show that concerns about education inequality and gender inequality are equally important for decreasing support for preschool and primary school closures, while they do not seem to matter regarding secondary school closures.

Keywords: Childcare Policy, COVID-19, School Closures, Survey Experiment, Information Treatment, Policy Support, Educational Inequality, Gender Inequality, Germany

JEL: D13, I24, J16, H4

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1. Introduction

Inequality is an important concern for society; raising awareness of its existence may impact people's perceptions and behaviors in many ways. Research shows that learning about the actual levels of inequality can increase policy support (Cruces et al., 2013; Trump, 2018) and influence preferences for educational decisions (Barone et al., 2016) as well as redistribution (Abbiati et al., 2020; Hoy & Toth, 2019).

This article contributes to the vast literature on perceptions of inequality and policy preferences by studying how information about inequality influences support for school closure policies during the COVID-19 pandemic. COVID-19-related policies with regard to school and childcare closures were amongst the most critically discussed measures during the pandemic because of their impact on both gender and educational inequality (Brezna, 2021). For instance, research has shown that during the pandemic, women shouldered most of the additional childcare and housework resulting from school and childcare center closures (Czymara et al., 2020; Kulic et al., 2020; Naumann et al., 2020). Additionally, school closures have caused learning losses, disproportionately affecting children and adolescents in disadvantaged families (Engzell et al., 2021; van de Werfhorst, 2021).

However, school closure policies have varied between countries, partially pointing to the path dependencies of pre-pandemic family and educational policies (Migone, 2020). For instance, schools and childcare centers in Italy remained closed for over half a year in the first year of the pandemic, whereas they reopened after eight weeks in the Netherlands (Mangiavacchi et al., 2020; Parolin & Lee, 2021; van de Werfhorst, 2021). In Sweden, primary schools and childcare centers never closed (Hale et al., 2021; Hale, 2020). Moreover, school and childcare center closure policies during the pandemic also varied within countries, that is, across time or regions (Parolin & Lee, 2021). This also holds true for Germany, where the federal states generally are granted a high degree of autonomy regarding the educational system.

In this article, we argue that individuals' support for daycare, kindergarten and school closures during the COVID-19 pandemic depends on their awareness of the potential disadvantages of these policies for different social groups. We analyze support for the so-called "federal emergency brake" that came into force on April 23, 2021, and required daycare centers, kindergartens, and schools to remain closed if the seven-day incidence rate of COVID-19 infections in a county exceeded 165 cases per 100,000 inhabitants for three consecutive days. We test the causal effect of information about (gender or educational) inequality related to the closure of schools, kindergartens, and childcare facilities (hereafter referred to as "school closures") using a survey experiment.

In our experiment, information about the current levels of gender inequality, educational inequality, or a combination of both was randomly assigned to respondents as part of the description of the "federal emergency brake" they were asked to evaluate. More specifically, respondents received information on either (1) the percentage of working mothers in Germany, (2) the percentage of pupils from disadvantaged backgrounds in Germany, (3) both, or (4) did not receive any information (the control condition). We argue that providing such information *before* asking about individuals' support for school and childcare closure policies works as a "priming" agent, creating awareness about existing inequalities and increasing the critical perception of the implications of these policies. Distinguishing between three different treatments allows us

to disentangle whether concerns about gender inequality have a larger impact on the acceptance of school closures than concerns about educational inequalities, and whether receiving both inequality information treatments accumulate the effect. Finally, we distinguish acceptance of school closures at three levels in the educational system: early education (daycare/childcare), primary school, and secondary school.

The information treatment concerning inequalities allows to correct distorted perceptions of reality, known as cognitive bias (Haselton et al., 2015). According to Tversky and Kahneman (1974), cognitive bias arises from the fact that – to reduce complexity – individuals make judgments relying on the limited information available to them. Therefore, priming treatments increase respondents' awareness of inequalities by outlining empirical evidence; individuals become more aware of the potentially problematic consequences of school closures and should therefore assess the policies that induce them more critically.

To the best of our knowledge, this is the first study investigating *how preferences for (or against) school closures as a COVID-19 containment measure change when respondents are informed about their potential effects on increasing inequality*.

However, a recent study on healthcare policy support among African-Americans during the COVID-19 pandemic shows that the effectiveness of such information treatments depends on previously held attitudes (Harell & Lieberman, 2021). Similarly, Diehl and Wolter (2021) find that individuals' attitudes towards containment measures are less guided by self-interest, family situation (as a proxy for the personal relevance of school closures), or local rates of infection or death but rather depend on political attitudes, especially trust in political institutions. Hence, we also assume that *individuals' attitudes regarding political ideology should moderate the degree to which these information treatments impact the support for school and childcare closures*.

Our study investigates the following four research questions: (1) Does an information treatment designed to raise awareness of (gender and educational) inequalities reduce acceptance of school closure policies? (2) Does support for school closures differ between different treatments received? (3) Does the effect of priming vary based on the level of education considered, that is, between the closure of daycare/kindergarten, primary schools, and secondary schools? (4) Do individuals' previously held attitudes regarding political ideology moderate the effect of the information treatments?

Our research contributes to the literature on policy acceptance by uncovering whether information about inequality matters, which type of inequality matters most to respondents' support for school closure policies, and whether information treatment of this kind has the potential to influence public opinion. We fielded our experiment at a crucial time, briefly after the introduction of the federal emergency brake in late April 2021 while many schools were still closed, and many were about to reopen. Moreover, our survey experiment was fielded after a five-month-long period of school closure and strict lockdown measures. Our findings show that concern about education inequality and concern about gender inequality are equally important in diminishing support for closure policies concerning daycare centers, kindergarten and primary schools. At the same time, they do not seem to matter in the case of secondary schools.

The paper develops as follows: the next section briefly outlines the article's theoretical expectations. Section 3 summarizes the educational system in Germany and the challenges resulting from the COVID-19 pandemic.

Section 4 describes the data and our experimental design. Section 5 presents the results, while Section 6 provides concluding remarks.

2. Different facets of inequalities and support for school closures

School closures have been discussed to impact multiple aspects of inequality, especially related to gender (of parents) as well as social background and migration status (of pupils). A sudden closure of schools challenged gender equality, as mothers – who were already before the pandemic more involved in childcare and supporting their children with learning and school tasks than fathers (Baker, 2019) – disproportionately increased the time they invested in homeschooling (Collins et al. 2020; Petts and Carlson 2020). At the same time, educational inequality also increased because children from lower class and immigrant parents were more affected by learning losses than children from parents with higher socio-economic status or non-migrants (Engzell et al. 2021). As mentioned above, both issues, gender, and educational inequality may play out differently in various stages of the children’s educational process.

In the case of Germany, one can distinguish between preschool education, such as childcare and kindergarten, primary school education (up to the age of 10 or 12, depending on the Federal State), and secondary education (high school and college, up to the age of 16). Gender inequality was more likely to be affected by daycare center, kindergarten and primary school closures than by school closures at the secondary level. Older children who attend secondary schooling need less help with distance learning, representing a lighter burden for mothers compared to helping younger children with home-schooling (Collins et al., 2020). Following these arguments, we expected that concerns for gender inequality would be more effective against the support of closures of *daycare centers, kindergarten* and *primary schools* and comparatively less against *high school closures* (H1).

On the contrary, educational inequality may have been affected by school closures at all levels of education. On the one hand, a growing literature on cognitive returns on preschool education shows that early learning disadvantages are critical for children’s further cognitive development (Blossfeld et al., 2017; Heckman, 2012; Kulic et al., 2019). On the other hand, secondary education is often thought to be a pillar of educational (and later life labour market) inequalities (Blossfeld & Shavit, 2010; Triventi et al., 2016), particularly in contexts where educational tracking determines later life labour market allocation and success (Bol and van de Werfhorst, 2013). Hence learning losses at this stage could be particularly penalizing for marginalized groups compared to advantaged children. This is because this final stage of education directly affects the entry into occupational training or higher education. Abundant literature shows that advantaged parents can better compensate for learning disadvantages in general, and particularly in secondary education (Triventi et al., 2020). Based on these arguments, we expect concerns about educational inequality to impact school closures at all levels equally (H2).

By highlighting how many mothers are employed, it is possible to raise respondents’ awareness of the increased work-life balance issues related to school closures, especially for mothers. In parallel, information about a relatively large share of pupils with educationally disadvantaged or non-German speaking parents, respondents are made aware of the social inequalities related to home-schooling. Building on previous theorizing (see Tversky & Kahneman, 1974), we expect our information treatments to have a stronger effect

on those respondents who were *less aware* (or more accepting) of the inequality consequences related to school closures, such as respondents without children, respondents living in areas where the schools were open at the time when the survey was conducted as well as respondents leaning more towards the right of the political spectrum who are often thought to be politically less informed (Van Kessel et al. 2020) (H3).

3. Institutional background: The educational system in Germany and the challenges resulting from the COVID-19 pandemic

Germany is a prime example of a conservative welfare state (Esping-Andersen, 1990). Although most children attend kindergarten after the age of three (the coverage rate being 92 %, Destatis, 2021), preschool institutions in Germany are usually not perceived as pursuing an educational goal but rather as supporting children's socio-emotional development, following a "social pedagogy" tradition (Tazouti et al., 2011). Children attend (mostly public) primary school from age six until ten (or twelve, depending on the Federal State). From the fifth (seventh in a few Federal States) grade onwards, they enter a tracked system of secondary schools where they are taught at (two to) three levels in different types of schools depending on their grades in primary school (Bittmann & Schindler, 2021). Moreover, various studies show that the German educational system involves a low level of social mobility because pupils from lower-educated or less-wealthy families have lower chances of following the most prestigious school track (Gymnasium) (Dräger, 2021).

Germany is a particularly suitable case to investigate the role of information in public support for policies because school, daycare and kindergarten closure policies have varied substantially throughout the pandemic, both over time and across regions (for a summary of the school and daycare/kindergarten closure measures, see Bertogg et al., 2021). During the first lockdown in Spring of 2020, all schools, kindergarten and childcare centers remained closed nationwide from mid-March to mid-May. Thereafter, they resumed but with limited attendance. In particular, a so-called "alternating" model was common, wherein children alternated (e.g., every other day or every other week) between on-site and distance learning. In November 2020, a second "lockdown light" was implemented, where schools first remained open. In mid-December 2020, when the second wave of COVID-19 infections gained momentum, schools, kindergarten and childcare centers, however closed again, while other facilities remained open. The timing of reopening then varied locally. On April 23, 2021, the so-called "Federal Emergency Break" came into force, which prohibited schooling and the use of regular in-person daycare ("Regelbetreuung in Kitas") in regions with a seven-day incidence rate above 165 per 100,000 inhabitants over three consecutive days.¹ This rule was applied at the regional (NUTS 3) level. Consequently, all regions with lower incidence rates were allowed to reopen school and childcare facilities.

¹ However, the law mentions exceptions for final-year classes and classes with special needs. Moreover, it also allowed "emergency care" for children below the age of 12, which was meant to support parents who were both considered "essential workers."

4. Data and method

4.1. Sample

In this article, we use data collected during the third wave of the “Living in Exceptional Circumstances” survey, which was financed and designed by the “Politics of Inequality” Cluster of Excellence at the University of Konstanz. The online survey was embedded in an online access panel and conducted by a specialized agency in Germany (Kantar). The data were collected between May 3–12, 2021, towards the end of the third lockdown. The online survey targeted individuals aged eighteen years and older living in private households. It used a quota sampling procedure to ensure that the distributions in the sample related to age, gender, federal state, and education reflect the population in Germany. Our sample is, therefore comparable to the reference population based on German census data.

Our information treatment was included in the third wave of the panel study conducted at the end of the first lockdown in May 2020. Our analytical sample comprises more than 3,000 individuals who participated in wave 3.

4.2. Experimental design and identification strategy

The main aim of this paper is to understand whether concerns about inequality drive support for the closure of educational and childcare facilities at different levels and, if so, what type of inequality is more relevant to our respondents. To answer these questions, we designed the survey experiment depicted in Figure 1. After a series of questions regarding respondents’ socio-economic characteristics, our respondents were randomly assigned to one of four groups: (1) a control group that did not receive any information and three treatment groups that received (2, 3) one of the two designed treatments or (4) both of them. The information treatments aimed at priming the respondents to think about the possible consequences of school, kindergarten and daycare center closures on either education inequality or gender inequality. The three information treatments were phrased as follows:

Information treatment about educational inequality: “For your information: In Germany, one in six children under the age of eighteen lives in a household with educationally disadvantaged or non-German-speaking parents.”

Information treatment about gender inequality: “For your information: In Germany, two out of three mothers are employed.”

Information treatment about both gender and educational inequality: “For your information: In Germany, two out of three mothers are employed, and one in six children under the age of 18 lives in a household with educationally disadvantaged or non-German-speaking parents.”

The information treatment was embedded in the display of the survey question and was presented after some baseline information on the new federal emergency brake (see below). We asked our respondents whether they support the following closure policy for daycare/kindergarten, primary schools, and secondary schools. For the randomization group, which did not receive any treatment (i.e., the control group), only the baseline information was provided, followed directly by the question regarding support for the policy. The baseline information and the question were presented as follows for all respondents:

“Since April 24, the so-called ‘federal emergency brake’ applies in Germany, which requires daycare centers, kindergartens, and schools, among others, to remain closed if the seven-day incidence rate of COVID-19

infections in a county exceeds 165 cases per 100,000 inhabitants over a three-day period. Given the above-mentioned incidence rates, do you support:

- A) The closure of childcare services for preschool children (daycare facilities, kindergartens)?
- B) The closure of primary schools?
- C) The closure of secondary schools?"

For each of the three levels in the educational system (A through C), the respondents could either select “yes” (indicating support for closures) or “no” (indicating that they did not support closures). Hence, the respondents could express their support for the measure for each of the three levels of schooling separately. The randomized manipulation of the information provided makes it possible to identify the causal impact of perceptions of different inequalities on policy acceptance.

The statistical figures for this information treatment came from two sources and refer to pre-pandemic conditions. Regarding the percentage of mothers in employment, we relied on data available from the Federal Statistical Office (see Destatis, 2020), referring to 2018. In order to obtain the share of minor children from disadvantaged households, we relied on the 2018 German General Social Survey (Allbus) microdata. We selected all households with minor children in school age (6-17 years) and computed the percentage of households in which neither parent had more than primary or lower secondary education (ISCED 1 or 2) or in which both parents were not born in Germany and did not spend their childhood or youth in Germany (GESIS, 2019).

4.3. Additional variables

We also collected information regarding respondents’ characteristics, which we use as additional explanatory variables for policy support and as a potential source of heterogeneous effects of the information treatment. Specifically, we include in our analysis the following variables. The respondent’s gender is measured as a dichotomous variable (1=female). The respondent’s age group is captured via three categories: 18–39 years, 40–59 years, and 60 years or older. The respondent’s highest level of education attained is measured with three groups corresponding to ISCED levels 1 and 2 (“low education”), 3 and 4 (“medium education”), and 5 and 6 (“higher education”). Household income is measured as a categorical variable, comprising the following six income groups: less than 900 euros per month, 900–1499 euros per month, 1500–2599 euros per month, 2600–3999 euros per month, 4000–5999 euros per month, and more than 6000 euros per month. A residual category captures all respondents who did not want to disclose their income. We further control for partnership status (married and living with a partner, living in a registered [homosexual] partnership, married but not living together, single, divorced, and widowed) and current employment status: employed full-time (min. 35h/week), employed part-time (15h to 34h/week), marginally employed (less than 15h/week), on parental leave, apprentice, student, in voluntary service, unemployed, housewife/husband, retired, or other. Additionally, we include a categorical variable indicating whether the respondent is childless, lives with one or more children with the youngest aged 0–5 years, lives with one or more children with the youngest aged 6–16 years, or lives with older children or has children who do not live in the same household. We also include information about respondents’ political preferences, namely, their positioning

on a left-right scale and a dummy for respondents who preferred not to answer. We also collected information on the federal state where the respondent was sampled.

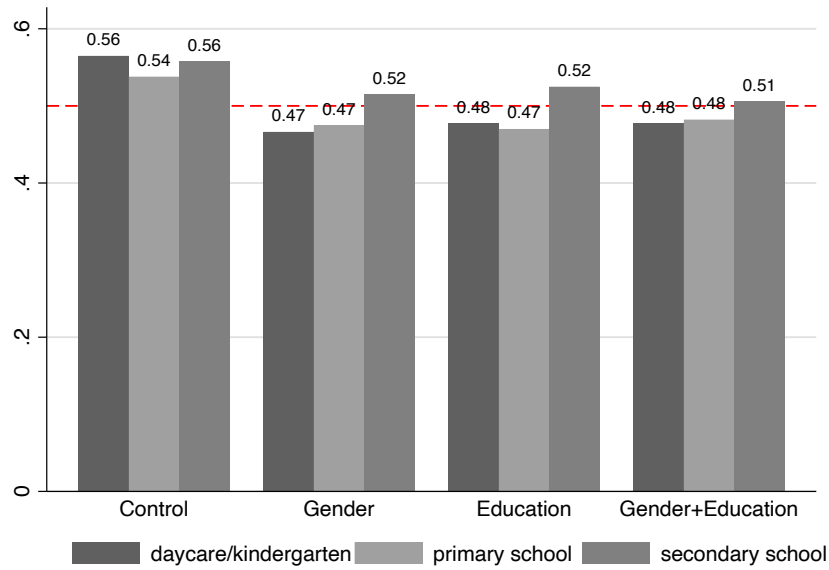
Finally, because experiencing the implementation of the federal emergency brake policy could directly have a differentiated impact on support, we merge our survey data with information on the effective status of the school closure policy in place on the day of the interview. We collected this information at the county (“Landkreis”) level (which corresponds to the level NUTS-3) via two separate categorical variables for closures at the school (primary and secondary) and childcare (kindergarten and pre-kindergarten daycare) levels. The categorical variables capture whether, in the given region on the day of the interview, schools or childcare facilities were: closed (0), partially open, including alternating schooling in half-classes (1), or fully open (2). After carefully testing for potential differential effects of full or partial closures at these two levels, we merged them into a dichotomous joint variable reflecting whether schools and childcare facilities were still closed (0) or at least one of them was (partially) open (1).

5. Main results

5.1. Descriptive results

Figure 1 presents the percentage of support for school closures for the four experimental groups across the three different school levels (represented with bars in different nuances of grey). Around 55 percent of those respondents in our sample who were not primed about education or gender inequality (the control group) support the above-mentioned school closure policies. Interestingly, we find no significant difference in support for closures at different levels of the educational system (daycare/kindergarten, primary school, and secondary school) in this group. As presented in figure 2, introducing information about gender and educational inequality decreases the share of people supporting school closures, especially at the levels of daycare/kindergarten (a decrease in support from 56 percent to 47–48 percent) and primary school (from 54 percent to 47 per cent in the experimental condition with priming on gender inequality, respectively to 48 percent in the experimental condition with priming on educational inequalities). On average, the type of inequality that was targeted by the priming intervention does not seem to affect support differently or at a different magnitude for all three levels of education, as acceptance rates are very similar across the three treatment groups (47–48 percent for daycare/kindergartens and primary schools, and 51–52 percent for secondary schools). All in all, with the introduction of the information treatments, the agreement rate decreases by at least four percentage points (for secondary school closures and a single gender or educational inequality treatment) and up to nine percentage points (for daycare/kindergartens and the gender inequality treatment). This indicates that the treatment has worked well and in the expected direction.

Figure 1: Support for school and daycare/kindergarten closures



Source: “Living in Exceptional Circumstances,” wave 3, May 2021. Wording: “Given the above-mentioned incidence rates, do you support: the closure of daycare/kindergarten/primary schools/secondary schools?” Bivariate frequencies (percent), weighted results. N = 3322. The red dashed line represents the majority threshold. Mean acceptance of closures are 50 percent for daycare/kindergarten, 49 percent for primary school, and 53 percent for high school (n.s.).

5.2. Experimental results

More formally, using the exogeneity of the treatments, which are randomly assigned to the respondents, allows us to investigate the impact of receiving the priming about education inequality and gender inequality, respectively and combined.² We estimate three probability models of support for closure separately for each level of schooling. In Table 1, we present the marginal effect of the treatments based on estimations with and without control variables.³

Tab.1: Impact of the treatments on support for school and daycare/kindergarten closures

	(1)	(2)	(3)	(4)	(5)	(6)
Type of school:	Daycare/Kindergarten		Primary school		Secondary school	
Gender inequality	-0.121*** (0.000)	-0.123*** (0.000)	-0.084** (0.004)	-0.087** (0.002)	-0.053 (0.068)	-0.052 (0.070)
Education inequality	-0.099*** (0.001)	-0.104*** (0.000)	-0.078** (0.008)	-0.083** (0.004)	-0.047 (0.112)	-0.044 (0.120)
Gender + education inequality	-0.097*** (0.001)	-0.098*** (0.001)	-0.071* (0.017)	-0.075** (0.008)	-0.057 (0.051)	-0.053 (0.060)
Control variables included	No	Yes	No	Yes	No	Yes
Observations	3,047	3,047	3,036	3,036	3,045	3,045

Marginal effects from weighted probit estimates. Controls variables include respondents’ gender, age and highest educational level (measured in three groups), partnership/marital status, parental status by age of children, employment status, income categories, political left-right leaning, information about the current school closure policy in place at the county level at the time on the day of survey participation, and federal state. *p*-values in parentheses * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001.

Source: “Living in Exceptional Circumstances,” wave 3, May 2021.

² Refer to table A1 in the Appendix for the results of our randomization checks.

³ The full table, including the controls, can be found in the Appendix (Table A2).

As a first finding, these multivariate models confirm our descriptive results from the sample averages: concerns about education and gender inequality both impact support for primary school and daycare/kindergarten closures. Being primed about the potential consequences of school and daycare/kindergarten closures for education or gender inequality decreases the average support for daycare/kindergarten closures by 10–12 percentage points (models 1 and 2). This represents a decrease in support for daycare/kindergarten closures of approximately 20 percent relative to those respondents who were not primed. Additional analyses show that the magnitude of this decrease is not significantly different across the three treatments. A similar effect, albeit of a lower magnitude, is found for primary school closures (models 3 and 4), where we see a decrease of 8–9 percentage points when respondents are informed about gender or education inequality. This amounts to a decrease of approximately 15 percent compared to the average support in the control group in our sample.

Unlike the other two educational stages, support for secondary school closures (models 5 and 6) does not seem to be affected significantly by concerns about gender and educational inequality induced by the information priming treatment. This can be expected regarding gender inequality as children and teenagers attending secondary education are less likely to require their parents' full attention and support for homeschooling (Collins et al., 2020) and are also more independent in their daily needs. This should make it more likely for parents—especially mothers—to be able to work even while these children are at home. This result confirms our H1. However, the finding regarding priming about educational inequality, is less clear as one could have expected school closures at the secondary level to be considered important for future educational success as hypothesized in H2 (Heckman, 2012; Werner & Woessman, 2021). A possible explanation for the lack of effect of priming for this level of education may be found in the specificities of the German education system: because of early tracking, the future of young children may be considered difficult to change once they are in secondary education. This reflects earlier research showing that early learning disadvantages are critical for children's further cognitive development (Blossfeld et al., 2017; Heckman, 2012; Kulic et al., 2019).

In a nutshell, concerns about gender and educational inequality were most effective in changing policy preferences regarding school closures for children in younger age groups, from daycare to primary school. Moreover, there is no indication that the type of inequality matters to respondents; inequality per se is an important driver of people's policy preferences. This result might be driven by the overarching importance of concerns about inequality that go beyond specific issues of gender and education (Zucker & Bay-Cheng, 2021). Interestingly, the policy preference for school closures is sensitive to the age of children affected by these policies, probably because smaller children are thought to be most affected by a lack of schooling opportunities due to their higher dependency on external structures and intensive support for learning success. Moreover, early schooling seems to be perceived as a central phase for educational inequality, which might be related to the German educational system where children are sorted into vocational or general academic tracks very early, namely at the age of ten (or twelve, in some federal states).

5.3. Heterogeneous effects

In a second step, we test whether these effects are stable across different groups of individuals according to gender, age, education, parental status, household income, political preferences, and experience of school closure policies by including interaction terms between these variables and the treatment received. Table 2 shows the estimated predictive probabilities of support for daycare/kindergarten closures for each group of respondents in each treatment status.⁴

Tab.2: Predictive probabilities of support for daycare/kindergarten closures by treatment status and individual characteristics

Treatment status	Control	Gender	Education	Gender + education
<i>Gender:</i>				
Male	0.61 [0.555,0.667]	0.48 [0.425,0.542]	0.46 [0.400,0.519]	0.51 [0.450,0.565]
Female	0.56 [0.501,0.615]	0.44 [0.384,0.496]	0.50 [0.440,0.553]	0.46 [0.407,0.521]
<i>Age:</i>				
18–39	0.53 [0.448,0.609]	0.42 [0.342,0.506]	0.44 [0.356,0.522]	0.42 [0.335,0.497]
40–59	0.62 [0.551,0.679]	0.49 [0.423,0.556]	0.47 [0.405,0.541]	0.49 [0.426,0.561]
60+	0.60 [0.522,0.682]	0.47 [0.386,0.545]	0.52 [0.443,0.601]	0.54 [0.464,0.621]
<i>Parental status:</i>				
No children	0.60 [0.532,0.665]	0.52 [0.452,0.585]	0.50 [0.426,0.565]	0.53 [0.463,0.601]
0–5 years old	0.48 [0.354,0.613]	0.32 [0.173,0.467]	0.37 [0.242,0.507]	0.28 [0.164,0.398]
6–16 years old	0.52 [0.393,0.645]	0.44 [0.334,0.552]	0.44 [0.308,0.568]	0.40 [0.266,0.526]
Over 16 years/not in the household	0.61 [0.542,0.673]	0.43 [0.365,0.500]	0.49 [0.429,0.559]	0.50 [0.439,0.568]
<i>Political attitudes:</i>				
Left	0.67 [0.578,0.753]	0.53 [0.430,0.621]	0.53 [0.438,0.624]	0.49 [0.402,0.582]
Center	0.59 [0.534,0.649]	0.49 [0.428,0.543]	0.49 [0.432,0.551]	0.48 [0.421,0.541]
Right	0.48 [0.364,0.587]	0.41 [0.294,0.530]	0.41 [0.291,0.531]	0.45 [0.327,0.570]
Not answered	0.56 [0.472,0.652]	0.38 [0.296,0.468]	0.45 [0.367,0.533]	0.51 [0.425,0.586]
<i>Education:</i>				
Low	0.51	0.38	0.40	0.46

⁴ Similar tables for support for primary and high school closures are available in the Appendix.

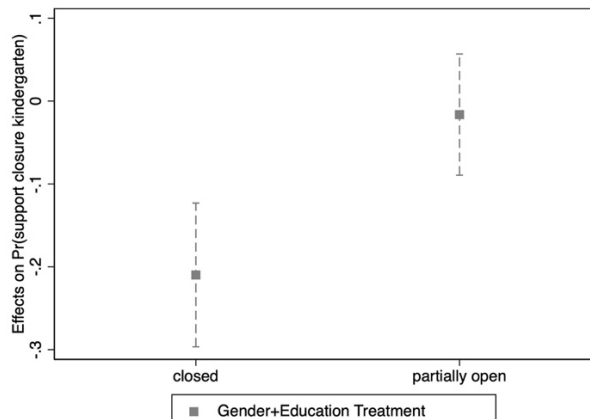
	[0.351,0.666]	[0.239,0.529]	[0.253,0.554]	[0.317,0.601]
Medium	0.60	0.45	0.49	0.47
	[0.548,0.644]	[0.406,0.501]	[0.446,0.541]	[0.418,0.514]
High	0.58	0.52	0.46	0.57
	[0.502,0.661]	[0.433,0.611]	[0.372,0.550]	[0.479,0.651]
<i>Household income (net, euros):</i>				
< 900	0.63	0.62	0.36	0.58
	[0.392,0.861]	[0.448,0.783]	[0.137,0.572]	[0.372,0.789]
900–1499	0.57	0.39	0.41	0.46
	[0.439,0.694]	[0.271,0.505]	[0.284,0.535]	[0.339,0.587]
1500–2599	0.61	0.42	0.50	0.48
	[0.528,0.682]	[0.344,0.504]	[0.427,0.567]	[0.405,0.557]
2600–3999	0.57	0.49	0.49	0.51
	[0.489,0.646]	[0.403,0.578]	[0.399,0.582]	[0.427,0.586]
4000–5999	0.58	0.49	0.51	0.40
	[0.478,0.682]	[0.395,0.590]	[0.407,0.617]	[0.297,0.495]
6000+	0.75	0.49	0.56	0.49
	[0.604,0.902]	[0.298,0.687]	[0.397,0.716]	[0.315,0.657]
Not answered	0.53	0.44	0.44	0.55
	[0.426,0.639]	[0.343,0.540]	[0.326,0.551]	[0.426,0.668]
<i>Schools & daycare/kindergarten policies:</i>				
Closed	0.63	0.49	0.50	0.42
	[0.563,0.686]	[0.430,0.553]	[0.436,0.565]	[0.351,0.479]
(Partially) Open	0.55	0.44	0.46	0.54
	[0.498,0.605]	[0.382,0.492]	[0.410,0.518]	[0.482,0.588]

Predicted probabilities from weighted probit estimates. 95% confidence intervals in brackets. Source: “Living in Exceptional Circumstances,” wave 3, May 2021.

As expected (H3), the weakest support (28 percent) comes from the parents of small children who were primed about both education and gender inequality, whereas childless persons who did not receive the treatment have a higher support rate (60 percent).

However, the results do not reveal any significant difference in the effects of the information treatments across gender, parenthood, and educational groups, except for individuals living in regions where schools and childcare were closed at the time of the interview. This group is, on average, more supportive of closures at all levels of education; nonetheless, once faced with the treatment combining education and gender inequality, their support decreases more strongly than that of the same treatment group in regions where schools and childcare were (partially) open (20 percentage points compared to 1.6 percentage points), see Figure 2.

Figure 2: Effect on support for daycare/kindergarten closures by actual exposure to closures – treatment group with both information treatments (gender and educational inequality)

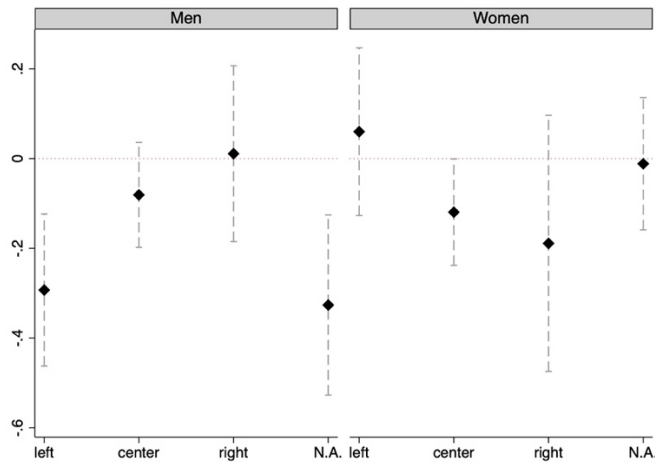


Marginal effects from weighted probit estimates. 95% confidence intervals. Source: “Living in Exceptional Circumstances,” wave 3, May 2021.

Finally, interactions between respondents’ treatment assignment, their group characteristics and their individual-level attitudes show some interesting patterns. As shown in Figure 3, we find opposite results for male and female respondents when interacting with an indicator of political conservativeness with the information treatments. Men (the left panel in Figure 3) who were primed about educational inequalities are less supportive of daycare/kindergarten and primary school closures, but only if they belong to the least conservative group, expressing that they are leaning to the left in terms of party ideology. In this group, the marginal effect of the educational inequality treatment amounts to a reduction in support as large as 29 percentage points as compared to the control group, respectively (see Table 2). On the contrary, when primed about educational inequalities, women react more strongly to the treatment the more politically right-wing they are, reducing their support. However, the treatment effect is only significant for women who report leaning towards the political middle (“center”).

A possible explanation for these gender- and ideology-specific treatment effects may be that conservative attitudes in men are positively correlated with meritocratic beliefs (Cech & Blair-Loy, 2010; Zucker & Bay-Cheng, 2021); this would lead to greater acceptance of social inequality among those who hold traditional political views and explain why the treatment about education inequality only works on men with progressive attitudes. Regarding women, the findings may seem more surprising. They could be explained by a stronger awareness of social inequality among more progressive women, whose support for closure policies is therefore not further affected by the additional information.

Figure 3: Effect on support for daycare/kindergarten closures by gender and political ideology.



Marginal effects from weighted probit estimates. 95% confidence intervals. Source: “Living in Exceptional Circumstances,” wave 3, May 2021.

To sum up, the findings regarding the heterogeneity of treatment effects by individuals’ characteristics and environment only partly support our expectations. We expected that our information treatments should have *a stronger effect* on those respondents who are likely to be *less aware* (or more accepting) of the inequality consequences related to school closures due to their gender, educational level, exposure to school closures and political ideology (H3). While we find that respondents living in areas where the schools were open at the time when the survey was conducted as well as (female) respondents leaning more towards the right of the political spectrum, indeed are more affected by the information treatment, we do not see a similar effect for men leaning towards the right of the political spectrum or for respondents without children in general. Neither do we find a significant difference in the treatment effects by gender or educational level.

6. Conclusions

Policy support matters for governments and policymakers because it provides a basis for action. Both public debates and research document increasing dissatisfaction with the pandemic governance, which, in extreme cases, has given rise to social movements and protest rallies where scientific skepticism pairs with right-wing ideology (Volk, 2021). Our study contributes to a better understanding of how people’s support for school and daycare/kindergarten closures relates to the information they receive regarding their implications for inequality.

Our study has examined the link between awareness of gender and educational inequality and support for school closures in Germany based on a survey experiment with multiple information treatments. We follow a life-course perspective in educational trajectories by looking at the support for closures at three levels: daycare/kindergartens, primary, and secondary schools. We analyzed the support for a specific pandemic containment policy, the so-called “federal emergency brake,” which came into force in Germany on April 23, 2021, and required the closure of schools and childcare facilities when the incidence rate of COVID-19 infections rose above a certain threshold in a respective county.

We find that information impacts policy preference by decreasing support for school closures, with the highest effect on daycare/kindergarten and elementary school closures. Our findings suggest no difference between concerns focusing on gender inequality and education inequality. When individuals are primed about inequality per se, they are less likely to support school closures. The findings of this article also highlight that daycare/kindergarten and primary school children are considered to be a more sensitive group to school closures than secondary school pupils. Although the effects of the treatments were, for the most part, not different across specific groups, there is some indication that the effectiveness of the information might have been different at the intersection of gender and political attitudes. Thus, we find that the weakest support for school closures comes from the parents of small children who were primed about both education and gender inequality. Moreover, the support of respondents who live in areas where schools were closed at the time of the interview was particularly susceptible to information on inequalities, which lowered their support of school closures to a stronger degree than for respondents in regions with open schools.

The broader implications of these findings are that transparent information on how policies are related to inequality outcomes may be effective tools to change public opinion about such policies. Since this mechanism is rooted in cognitive processes, it likely extends beyond pandemic containment measures such as school closures and may also apply to future policy reforms tackling inequalities. Future research may further investigate how this finding could provide an explanation for why support for school closures was particularly weak or strong in some countries and regions, linking them to overall welfare state organization or cultural ideals and norms.

Our findings have important policy relevance as informed citizens are more critical of policies that can induce inequalities than non-informed citizens. Additionally, since citizens' awareness of these inequalities has real short- and longer-term consequences, policymaking should also consider their effect on trust in public administration and the state, as well as policy acceptance.

References

- Abbiati, L., Antinyan, A., & Corazzini, L. (2020). A survey experiment on information, taxpayer preferences, and perceived adequacy of the tax burden. *Heliyon*, 6(3), e03576. <https://doi.org/10.1016/j.heliyon.2020.e03576>
- Baker, E. E. (2019). Motherhood, homeschooling, and mental health. *Sociological Compass*, 13(9). <https://doi.org/https://doi.org/10.1111/soc4.12725>
- Barone, C., Schizzerotto, A., Abbiati, G., & Argentin, G. (2016). Information Barriers, Social Inequality, and Plans for Higher Education: Evidence from a Field Experiment. *European Sociological Review*. <https://doi.org/10.1093/esr/jcw050>
- Bertogg, A., Kulic, N., & Strauss, S. (2021). Protected through part-time employment? Labor Market Status, domestic responsibilities, and the life satisfaction of German women during the COVID-19 pandemic. *Social Politics*. <https://doi.org/https://doi.org/10.1093/sp/jxab048>
- Bittmann, F., & Schindler, S. (2021). Analysing Diversion Processes in German Secondary Education: School-Track Effects on Educational Aspirations. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 73, 231–257. <https://doi.org/https://doi.org/10.1007/s11577-021-00789-1>
- Blossfeld, H. P., Kulic, N., Skopek, J., & Triventi, M. (2017). In H. P. Blossfeld, N. Kulic, J. Skopek, & M. Triventi (Eds.), *Childcare, early education and social inequality: An international perspective*. Edward Elgar Publishing.
- Blossfeld, H. P., & Shavit, Y. (2010). Persisting barriers. The Structure of Schooling. *Readings in the Sociology of Education*, 214.

- Bol, T., & van de Werfhorst, H.G. (2013). Educational Systems and the Trade-Off between Labor Market Allocation and Equality of Educational Opportunity. *Comparative Education Review*, 57, 285 - 308.
- Breznau, N. (2021). The welfare state and risk perceptions: the Novel Coronavirus Pandemic and public concern in 70 countries. *European Societies*, 23(1), 33-46.
- Cech, E., & Blair-Loy, M. (2010). Perceiving Glass Ceilings? Meritocratic versus Structural Explanations of Gender Inequality among Women in Science and Technology. *Social Problems*, 57(3), 371-397. <https://doi.org/10.1525/sp.2010.57.3.371>
- Collins, C., Landivar, L. C., Ruppner, L. R., & Scarborough, W. J. (2020). COVID-19 and the gender gap in work hours. *Gender, Work & Organization*, 28(1), 101-112. <https://doi.org/https://onlinelibrary.wiley.com/doi/10.1111/gwao.12506>
- Cruces, G., Perez-Truglia, R., & Tetaz, M. (2013). Biased Perceptions of Income Distribution and Preferences for Redistribution: Evidence from a Survey Experiment. *Journal of Public Economics* 98(1), 100–112.
- Czymara, C. S., Langenkamp, A., & Cano, T. (2020). Cause for concerns: gender inequality in experiencing the COVID-19 lockdown in Germany. *European Societies*, 23(sup1), S68-S81. <https://doi.org/10.1080/14616696.2020.1808692>
- Statistisches Bundesamt Destatis (2020): *Pressemitteilung Nr. N 023 vom 7. Mai 2020*. Abgerufen von [https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/05/PD20_N023_132.html#:~:text=Knapp%20ein%20Viertel%20\(23%20%25\),vollzeiterwerbst%C3%A4tig%20\(2008%3A%2018%20%25\).am.12.04.2021](https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/05/PD20_N023_132.html#:~:text=Knapp%20ein%20Viertel%20(23%20%25),vollzeiterwerbst%C3%A4tig%20(2008%3A%2018%20%25).am.12.04.2021).
- Destatis. (2021). *Kindertagesbetreuung*. Retrieved 15.12.2021 from https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Soziales/Kindertagesbetreuung/_inhalt.html
- Diehl, C., & Wolter, F. (2021). Attitudes about containment measures during the 2020/2021 coronavirus pandemic: self-interest, or broader political orientations? *Research & Politics*, 8(3). <https://doi.org/10.1177/20531680211035319>
- Dräger, J. (2021). The Role of Parental Wealth in Children's Educational Pathways in Germany. *European Sociological Review*. <https://doi.org/http://dx.doi.org/10.1093/esr/jcab027>
- Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proc Natl Acad Sci U S A*, 118(17). <https://doi.org/10.1073/pnas.2022376118>
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Princeton University Press.
- Gambaro, L., Marcus, J., & Frauke, P. (2019). School entry, afternoon care, and mothers' labour supply. *Empirical Economics*, 57(3), 769-803. <https://doi.org/doi:http://dx.doi.org/10.1007/s00181-018-1462-3>
- GESIS - Leibniz-Institut für Sozialwissenschaften (2019). *ALLBUS/GGSS 2018* (Allgemeine Bevölkerungsumfrage der Sozialwissenschaften/German General Social Survey 2018). GESIS Data Archive, Cologne. ZA5270 Data file Version 2.0.0, <https://doi.org/10.4232/1.13250>.
- Hale, T., Angrist, N., Goldszmidt, R., Kira, B., Petherick, A., Phillips, T., Webster, S., Cameron-Blake, E., Hallas, L., Majumdar, S., & Tatlow, H. (2021). A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker). *Nature Human Behavior*, 5(4), 529-538. <https://doi.org/10.1038/s41562-021-01079-8>
- Hale, T., Sam Webster, Anna Petherick, Toby Phillips, and Beatriz Kira. (2020). *Oxford COVID-19 Government Response Tracker*. Blavatnik School of Government. <https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker>
- Harell, A., & Lieberman, E. (2021). How information about race-based health disparities affects policy preferences: Evidence from a survey experiment about the COVID-19 pandemic in the United States. *Soc Sci Med*, 277, 113884. <https://doi.org/10.1016/j.socscimed.2021.113884>
- Haselton, M. G., Nettle, D., & Murray, D. R. (2015). The evolution of cognitive bias. In M. G. Haselton, D. Nettle, & D. R. Murray (Eds.), *The handbook of evolutionary psychology* (pp. 1-20.).
- Heckman, J. J. (2012). Invest in early childhood development: Reduce deficits, strengthen the economy. *The Heckman Equation*(7), 1-2.
- Hoy, C., & Toth, R. (2019). Aligning preferences for redistribution of right and left wing voters by correcting their beliefs about inequality. *TPI Working Paper*, 4.
- Kulic, N., Dotti Sani, G. M., Strauss, S., & Bellani, L. (2020). Economic disturbances in the COVID-19 crisis and their gendered impact on unpaid activities in Germany and Italy. *European Societies*, 1-17. <https://doi.org/10.1080/14616696.2020.1828974>

- Kulic, N., Skopek, J., Triventi, M., & Blossfeld, H. P. (2019). Social background and children's cognitive skills: The role of early childhood education and care in a cross-national perspective. *Annual Review of Sociology*, 45, 557-579.
- Mangiavacchi, L., Piccoli, L., & Pieroni, L. (2020). Fathers Matter: Intra-Household Responsibilities and Children's Wellbeing during the COVID-19 Lockdown in Italy. *IZA Discussion Paper*, 13519. <https://ssrn.com/abstract=3660266>
- Migone, A. R. (2020). The influence of national policy characteristics on COVID-19 containment policies: a comparative analysis. *Policy Design and Practice*, 3(3), 259-276. <https://doi.org/10.1080/25741292.2020.1804660>
- Naumann, E., Möhring, K., Reifenscheid, M., Wenz, A., Rettig, T., Lehrer, R., Krieger, U., Juhl, S., Friedel, S., Fikel, M., Cornesse, C., & Blom, A. G. (2020). COVID-19 policies in Germany and their social, political, and psychological consequences. *European Policy Analysis*, 6(2), 191-202. <https://doi.org/10.1002/epa2.1091>
- Parolin, Z., & Lee, E. K. (2021). Large socio-economic, geographic and demographic disparities exist in exposure to school closures. *Nat Hum Behav*, 5(4), 522-528. <https://doi.org/10.1038/s41562-021-01087-8>
- Tazouti, Y., Viriot-Goeldel, C., Matter, C., & al., e. (2011). French nursery schools and German kindergartens: effects of individual and contextual variables on early learning. *European Journal of the Psychology of Education*, 26, 199-213. <https://doi.org/https://doi.org/10.1007/s10212-010-0043-4>
- Triventi, M., Kulic, N., Skopek, J., & Blossfeld, H. P. (2016). Secondary school systems and inequality of educational opportunity in contemporary societies. In *Models of Secondary Education and Social Inequality*. Edward Elgar Publishing.
- Triventi, M., Skopek, J., Kulic, N., Buchholz, S., & Blossfeld, H. P. (2020). Advantage 'finds its way': How privileged families exploit opportunities in different systems of secondary education. *Sociology*, 54(2), 237-257.
- Trump, K. S. (2018). Income inequality influences perceptions of legitimate income differences. *British Journal of Political Science*, 48(4), 929-952.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*(185), 1121-1131.
- van de Werfhorst, H. G. (2021). Inequality in learning is a major concern after school closures. *Proc Natl Acad Sci U S A*, 118(20). <https://doi.org/10.1073/pnas.2105243118>
- Van Kessel, S., Sajuria, J., & Van Hauwaert, S. M. (2020). Informed, uninformed or misinformed? A cross-national analysis of populist party supporters across European democracies. *West European Politics*, 44(3), 585-610.
- Volk, S. (2021). Political Performances of Control During COVID-19: Controlling and Contesting Democracy in Germany. *Frontiers in Political Science*, 3, 38.
- Werner, K., & Woessman, L. (2021). *The Legacy of COVID-19 in Education* (CESifo Working Paper Series, Issue).
- Zucker, A. N., & Bay-Cheng, L. Y. (2021). Me First: The Relation Between Neoliberal Beliefs and Sexual Attitudes. *Sexuality Research and Social Policy*, 18, 390-396. <https://doi.org/10.1007/s13178-020-00466-6>

Supporting Information/Appendix

Tab A1: Randomization checks

	Difference any treatment vs. control	Difference gender treatment vs. other	Difference education treatment vs. other
Male	0.01	0.01	0.01
Female	-0.01	-0.01	-0.01
Age = 18–39	-0.00	-0.00	-0.01
Age = 40–59	0.01	0.01	0.02
Age = 60+	-0.01	-0.01	-0.01
Baden-Württemberg	-0.02	-0.02	-0.02
Bayern	0.02	0.03	0.03
Berlin	-0.01	-0.01	-0.01
Brandenburg	0.00	0.00	0.00
Bremen	-0.01	-0.01	-0.00
Hamburg	-0.00	-0.00	0.00
Hessen	0.01	0.01	0.01
Mecklenburg-Vorpommern	-0.01	-0.01	-0.01
Niedersachsen	0.01	0.01	0.01
Nordrhein-Westfalen	-0.02	-0.02	-0.02
Rheinland-Pfalz	-0.01	-0.01	-0.01
Saarland	0.00	0.00	0.00
Sachsen	0.01	0.01	0.01
Sachsen-Anhalt	0.01	0.01	0.02
Schleswig-Holstein	-0.01	-0.01	-0.01
Thüringen	-0.00	-0.00	-0.01
No children	0.01	0.01	0.02
Children 0–5 years old	0.00	0.01	-0.01
Children 6–16 years old	-0.01	-0.01	0.00
Children over 16 and/or not in the household	-0.01	-0.01	-0.02
Married	-0.01	-0.01	-0.02
In a civil union	0.00	0.00	0.01
Separated (married)	0.00	-0.00	0.00
Separated (civil union)	0.00	0.00	0.00
Single	0.02	0.02	0.02
Divorced	-0.01	-0.01	-0.01
Widow/er	0.00	0.01	0.00
Low education	-0.01	-0.01	-0.01
Medium education	-0.02	-0.02	-0.02
Higher education	0.03*	0.04*	0.03
Household net income (euros):			
< 900	-0.00	-0.01	0.00
900–1499	-0.01	-0.01	-0.01
1500–2599	-0.03	-0.01	-0.03
2600–3999	0.03*	0.03	0.03
4000–6000	-0.00	-0.00	0.00
>6000	-0.00	-0.00	-0.01
Not given	0.01	0.01	0.02
Working full-time (min. 35h/week)	0.02	0.02	0.01
Working part-time (between 15h and 35h/week)	-0.02	-0.02	-0.02
Working less than 15h/week	-0.01	-0.01	-0.00
Parental leave	-0.00	-0.00	-0.00
Apprentice	0.00	0.00	0.00
Student	-0.00	-0.00	-0.00
Social volunteers service	0.00	0.00	0.00
Unemployed	0.01	0.00	0.01
Unpaid housework	0.00	0.00	0.01
Retired	-0.01	-0.01	-0.01
Other employment situation	0.01	0.01	0.01*
Schools closed in the district	0.01	0.00	0.02
Schools partially open in the district	-0.01	-0.00	-0.02
Political scale not answered	-0.02	-0.01	-0.02
Positioning on the left-right political scale	0.03	0.02	-0.02

Tab A2: Full table for the main results

	(1)	(2)	(3)
Gender treatment	-0.123*** (0.000)	-0.087** (0.002)	-0.052 (0.070)
Education treatment	-0.104*** (0.000)	-0.083** (0.004)	-0.044 (0.121)
Gender + education treatment	-0.098*** (0.001)	-0.075** (0.008)	-0.053 (0.061)
Female	-0.026 (0.249)	-0.048* (0.032)	-0.020 (0.361)
Age = 40–59	0.067* (0.023)	0.099*** (0.001)	0.078** (0.007)
Age = 60+	0.083 (0.060)	0.071 (0.103)	0.035 (0.416)
Bayern	-0.051 (0.227)	-0.055 (0.192)	-0.018 (0.663)
Berlin	0.048 (0.331)	0.013 (0.797)	0.019 (0.688)
Brandenburg	-0.100* (0.046)	-0.128** (0.010)	-0.108* (0.031)
Bremen	-0.102 (0.324)	-0.184 (0.062)	0.082 (0.439)
Hamburg	0.075 (0.369)	0.059 (0.487)	0.057 (0.493)
Hessen	0.059 (0.227)	0.014 (0.781)	0.049 (0.316)
Mecklenburg-Vorpommern	-0.154* (0.012)	-0.191** (0.002)	-0.128* (0.040)
Niedersachsen	0.056 (0.251)	0.017 (0.720)	0.101* (0.034)
Nordrhein-Westfalen	0.055 (0.147)	0.053 (0.163)	0.057 (0.128)
Rheinland-Pfalz	0.028 (0.640)	-0.029 (0.612)	-0.031 (0.591)
Saarland	0.130 (0.167)	0.012 (0.903)	0.036 (0.711)
Sachsen	-0.088* (0.037)	-0.109** (0.010)	-0.108** (0.010)
Sachsen-Anhalt	-0.102* (0.039)	-0.134** (0.006)	-0.146** (0.003)
Schleswig-Holstein	0.032 (0.644)	0.046 (0.503)	0.064 (0.345)
Thüringen	-0.117* (0.020)	-0.172*** (0.001)	-0.154** (0.002)
Children 0–5 years old	-0.172*** (0.000)	-0.164*** (0.000)	-0.215*** (0.000)
Children 6–16 years old	-0.084* (0.032)	-0.115** (0.003)	-0.140*** (0.000)
Children over 16/not in the household	-0.026 (0.387)	-0.026 (0.390)	-0.055 (0.066)
In a civil union	-0.054 (0.353)	0.010 (0.863)	-0.066 (0.249)
Separated (married)	-0.115 (0.139)	-0.103 (0.174)	-0.065 (0.403)
Separated (civil union)	-0.036 (0.810)	-0.091 (0.537)	-0.069 (0.622)
Single	-0.012 (0.711)	-0.008 (0.812)	0.003 (0.930)
Divorced	0.002 (0.960)	-0.015 (0.691)	-0.040 (0.283)
Widow/er	-0.038 (0.456)	-0.037 (0.459)	-0.037 (0.464)
Medium education	0.063 (0.128)	0.051 (0.211)	0.103* (0.011)
Higher education	0.093* (0.046)	0.097* (0.036)	0.194*** (0.000)
Household net income (euros) 900–1499	-0.103 (0.102)	-0.133* (0.032)	-0.155* (0.013)

Household net income (euros) 1500–2599	-0.058 (0.332)	-0.057 (0.333)	-0.088 (0.131)
Household net income (euros) 2600–3999	-0.048 (0.443)	-0.072 (0.237)	-0.069 (0.245)
Household net income (euros) 4000–5999	-0.063 (0.336)	-0.080 (0.217)	-0.112 (0.076)
Household net income (euros) > 6000	0.007 (0.931)	-0.011 (0.882)	-0.089 (0.225)
Income not given	-0.074 (0.246)	-0.101 (0.107)	-0.131* (0.032)
Working part-time (between 15h and 35h/week)	-0.022 (0.539)	0.006 (0.869)	0.009 (0.802)
Working less than 15h/week	0.058 (0.339)	0.105 (0.072)	0.086 (0.127)
Parental leave	0.095 (0.298)	0.101 (0.279)	0.082 (0.374)
Apprentice	0.027 (0.816)	0.172 (0.173)	0.211* (0.047)
Student	0.091 (0.244)	0.130 (0.088)	0.152* (0.048)
Unemployed	0.052 (0.377)	0.107 (0.066)	0.098 (0.095)
Unpaid housework	0.068 (0.290)	0.054 (0.404)	0.050 (0.444)
Retired	0.017 (0.654)	0.074 (0.051)	0.092* (0.012)
Other employment situation	0.004 (0.952)	-0.038 (0.555)	-0.011 (0.867)
Positioning on the left-right political scale	-0.021*** (0.001)	-0.026*** (0.000)	-0.022*** (0.000)
Political scale not answered	0.107* (0.022)	0.127** (0.005)	0.117** (0.010)
Schools partially open in the district	-0.009 (0.702)	-0.012 (0.639)	-0.023 (0.335)
Observations	3,044.000	3,036.000	3,042.000

Marginal effects from weighted probit estimates. *p*-values in parentheses * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001.

Source: “Living in Exceptional Circumstances,” wave 3, May 2021.

Tab.A3: Impact of the treatments on support for school and daycare/kindergarten closures

Type of school:	(1) Daycare/kindergarten	(2) Primary school	(3) Secondary school
Gender	-0.100*** (0.000)	-0.066** (0.009)	-0.040 (0.113)
Education	-0.089*** (0.000)	-0.069** (0.005)	-0.042 (0.091)
Gender + education	-0.078** (0.002)	-0.057* (0.020)	-0.038 (0.124)
Observations	3,044.000	3,036.000	3,042.000

Marginal effects from unweighted probit estimates. Controls are: gender, age and education groups, partnership/marital status, parental status by the age of children, employment status, income categories, political left-right leaning, and federal state. *p*-values in parentheses * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001.

Source: “Living in Exceptional Circumstances,” wave 3, May 2021.

Tab.A4: Predictive probabilities of support for primary school closures by treatment status and individual characteristics

Treatment status	Control	Gender	Education	Gender + education
<i>Gender:</i>				
Male	0.58 [0.524,0.637]	0.50 [0.440,0.557]	0.48 [0.416,0.534]	0.53 [0.470,0.583]
Female	0.54 [0.480,0.593]	0.44 [0.389,0.500]	0.47 [0.416,0.528]	0.44 [0.382,0.495]
<i>Age:</i>				
18–39	0.50 [0.420,0.581]	0.44 [0.359,0.523]	0.42 [0.342,0.503]	0.39 [0.311,0.469]
40–59	0.60 [0.540,0.667]	0.52 [0.457,0.588]	0.50 [0.431,0.566]	0.52 [0.455,0.588]
60+	0.56 [0.482,0.642]	0.45 [0.367,0.524]	0.50 [0.417,0.574]	0.53 [0.452,0.608]
<i>Parental status:</i>				
No children	0.59 [0.520,0.653]	0.52 [0.452,0.583]	0.50 [0.432,0.569]	0.53 [0.460,0.596]
0–5 years old	0.44 [0.304,0.568]	0.37 [0.221,0.515]	0.39 [0.258,0.525]	0.28 [0.152,0.407]
6–16 years old	0.46 [0.336,0.586]	0.45 [0.337,0.556]	0.34 [0.224,0.460]	0.40 [0.269,0.521]
over 16/not in the household	0.58 [0.515,0.645]	0.45 [0.379,0.512]	0.50 [0.432,0.563]	0.50 [0.438,0.566]
<i>Political attitudes:</i>				
Left	0.68 [0.596,0.765]	0.54 [0.442,0.630]	0.54 [0.452,0.633]	0.52 [0.426,0.606]
Center	0.56 [0.506,0.622]	0.50 [0.442,0.555]	0.50 [0.442,0.561]	0.47 [0.410,0.529]
Right	0.43 [0.316,0.535]	0.38 [0.267,0.494]	0.35 [0.235,0.469]	0.45 [0.334,0.572]
Not Answered	0.52 [0.431,0.610]	0.41 [0.319,0.496]	0.43 [0.346,0.510]	0.49 [0.415,0.574]
<i>Education:</i>				
Low	0.52 [0.363,0.675]	0.42 [0.273,0.560]	0.35 [0.208,0.495]	0.47 [0.326,0.617]
Medium	0.56 [0.516,0.613]	0.46 [0.409,0.503]	0.49 [0.443,0.537]	0.46 [0.409,0.504]
High	0.56 [0.482,0.639]	0.54 [0.457,0.631]	0.47 [0.383,0.560]	0.58 [0.490,0.661]

Household income (net, euros):

<900	0.63 [0.398,0.861]	0.64 [0.487,0.794]	0.34 [0.129,0.554]	0.60 [0.394,0.806]
900–1499	0.53 [0.402,0.654]	0.43 [0.307,0.556]	0.34 [0.222,0.457]	0.45 [0.323,0.571]
1500–2599	0.60 [0.520,0.672]	0.43 [0.352,0.510]	0.50 [0.431,0.571]	0.52 [0.449,0.597]
2600–3999	0.53 [0.451,0.610]	0.48 [0.394,0.569]	0.50 [0.413,0.595]	0.48 [0.405,0.562]
4000–5999	0.55 [0.445,0.650]	0.50 [0.404,0.596]	0.50 [0.399,0.610]	0.40 [0.298,0.501]
6000+	0.72 [0.568,0.875]	0.49 [0.295,0.680]	0.55 [0.382,0.707]	0.49 [0.330,0.657]
Not Answered	0.50 [0.392,0.607]	0.46 [0.361,0.555]	0.45 [0.340,0.556]	0.48 [0.358,0.598]
<hr/>				
<i>Schools & daycare/kindergarten policies:</i>				
Closed	0.60 [0.534,0.658]	0.50 [0.437,0.559]	0.51 [0.448,0.575]	0.41 [0.344,0.471]
Partially open	0.53 [0.475,0.582]	0.45 [0.395,0.503]	0.45 [0.394,0.500]	0.54 [0.483,0.588]

Predicted probabilities from weighted probit estimates. 95% confidence intervals in brackets. Source: “Living in Exceptional Circumstances,” wave 3, May 2021.

Tab.A5: Predictive probabilities of support for secondary school closures by treatment status and individual characteristics

Treatment status	Control	Gender	Education	Gender + education
<i>Gender:</i>				
Male	0.59 [0.533,0.645]	0.53 [0.472,0.588]	0.53 [0.469,0.585]	0.52 [0.467,0.579]
Female	0.55 [0.493,0.607]	0.51 [0.451,0.560]	0.52 [0.467,0.578]	0.51 [0.454,0.565]
<i>Age:</i>				
18–39	0.52 [0.439,0.599]	0.54 [0.458,0.618]	0.48 [0.395,0.556]	0.44 [0.361,0.520]
40–59	0.61 [0.547,0.673]	0.56 [0.494,0.623]	0.55 [0.485,0.617]	0.56 [0.496,0.626]
60+	0.57 [0.491,0.648]	0.46 [0.382,0.534]	0.54 [0.463,0.617]	0.54 [0.464,0.615]
<i>Parental status:</i>				
No children	0.61 [0.540,0.670]	0.60 [0.534,0.663]	0.55 [0.482,0.616]	0.59 [0.526,0.662]
0–5	0.46 [0.326,0.588]	0.32 [0.178,0.457]	0.43 [0.295,0.560]	0.28 [0.161,0.390]
6–16	0.42 [0.290,0.540]	0.52 [0.416,0.630]	0.36 [0.239,0.486]	0.45 [0.320,0.573]
Over 16/not in the household	0.60 [0.531,0.662]	0.47 [0.399,0.533]	0.56 [0.493,0.622]	0.51 [0.444,0.571]
<i>Political attitudes:</i>				
Left	0.67 [0.577,0.756]	0.60 [0.511,0.690]	0.55 [0.465,0.642]	0.53 [0.444,0.622]
Center	0.57 [0.514,0.629]	0.52 [0.468,0.579]	0.57 [0.512,0.628]	0.50 [0.441,0.558]
Right	0.46 [0.347,0.567]	0.45 [0.331,0.564]	0.43 [0.310,0.557]	0.47 [0.345,0.586]
Not Answered	0.55 [0.459,0.637]	0.48 [0.393,0.568]	0.46 [0.379,0.543]	0.56 [0.477,0.636]
<i>Education:</i>				
Low	0.57 [0.420,0.727]	0.38 [0.243,0.516]	0.34 [0.196,0.487]	0.41 [0.268,0.544]
Medium	0.57 [0.520,0.616]	0.50 [0.453,0.547]	0.53 [0.480,0.574]	0.49 [0.444,0.539]
High	0.59 [0.510,0.668]	0.63 [0.551,0.717]	0.59 [0.506,0.679]	0.65 [0.561,0.728]

<i>Household income (net):</i>				
< 900	0.68	0.67	0.49	0.63
	[0.450,0.901]	[0.510,0.829]	[0.254,0.724]	[0.418,0.832]
900–1499	0.54	0.45	0.38	0.53
	[0.408,0.679]	[0.319,0.570]	[0.251,0.499]	[0.407,0.648]
1500–2599	0.61	0.47	0.54	0.55
	[0.533,0.681]	[0.395,0.548]	[0.470,0.608]	[0.473,0.622]
2600–3999	0.59	0.54	0.57	0.55
	[0.508,0.661]	[0.456,0.628]	[0.479,0.657]	[0.471,0.625]
4000–5999	0.53	0.56	0.56	0.41
	[0.421,0.630]	[0.462,0.654]	[0.456,0.664]	[0.314,0.512]
6000+	0.68	0.51	0.58	0.42
	[0.522,0.847]	[0.332,0.694]	[0.415,0.735]	[0.259,0.585]
Not Answered	0.49	0.52	0.49	0.51
	[0.382,0.593]	[0.423,0.613]	[0.377,0.592]	[0.389,0.623]
<hr/>				
<i>Schools & daycare/kindergarten policies:</i>				
closed	0.61	0.54	0.58	0.45
	[0.550,0.672]	[0.478,0.599]	[0.518,0.641]	[0.390,0.517]
partially open	0.54	0.50	0.48	0.56
	[0.483,0.590]	[0.447,0.555]	[0.431,0.537]	[0.508,0.612]

Predicted probabilities from weighted probit estimates. 95% confidence intervals in brackets. Source: “Living in Exceptional Circumstances,” wave 3, May 2021.