

Affective Polarization Between Opinion-Based Groups in a Context of Low Partisan Discord: Measuring Its Prevalence and Consequences

David Schieferdecker, Philippe Joly, Thorsten Faas

International Journal of Public Opinion Research, Volume 36, Issue 2, Summer 2024, edae009

Suggested citation (APA):

Schieferdecker, D., Joly, P., & Faas, T. (2024). Affective Polarization Between Opinion-Based Groups in a Context of Low Partisan Discord: Measuring Its Prevalence and Consequences. *International Journal of Public Opinion Research*, 36(2), edae009.
<https://doi.org/10.1093/ijpor/edae009>

**Affective Polarization Between Opinion-Based Groups in a Context of Low
Partisan Discord: Measuring its Prevalence and Consequences**

David Schieferdecker¹, Philippe Joly², and & Thorsten Faas²

¹ Institute for Media and Communication Studies

Freie Universität Berlin

Germany

² Otto Suhr Institute of Political Science

Freie Universität Berlin

Germany

Author Note

David Schieferdecker (<https://orcid.org/0000-0003-2376-0929>) is a postdoctoral researcher at the Institute for Media and Communication Studies, Freie Universität Berlin, Germany. He received his doctorate (Dr. phil.) at the University of Mannheim, Germany. His research interests pertain to the interplay of communication processes with social identities, political attitudes, and pro-social behavior.

Philippe Joly (<https://orcid.org/0000-0002-4278-9439>) is a postdoctoral researcher at the Otto Suhr Institute of Political Science, Freie Universität Berlin, Germany. He completed a doctorate in political science (Dr. phil.) at Humboldt University of Berlin, Germany. His work focuses on political sociology, political participation, and quantitative methods.

Thorsten Faas (<https://orcid.org/0000-0003-3192-1155>) is a professor of political sociology of Germany at the Otto Suhr Institute of Political Science, Freie Universität Berlin, Germany. He received a doctorate (Dr. rer. pol.) at the University Duisburg-Essen, Germany. His work focuses on elections, electoral behavior, and election campaigns.

Correspondence concerning this article should be addressed to David Schieferdecker, Garystr. 55, 14195 Berlin, Germany. E-mail: d.schieferdecker@fu-berlin.de

Abstract

Affective polarization has been primarily studied as a phenomenon between partisans. Recently, Hobolt, Leeper, and Tilley (2021) showed in the context of Brexit that affective polarization can also materialize around opinion-based groups, that is, political identities that form around extraordinary issues and cut through partisan lines. We generalize their findings by documenting the emergence of affective polarization around a new political conflict in a national context of low partisan discord. Specifically, we study divisions around the government response to the COVID-19 pandemic in Germany, a multiparty system where all established parties supported certain freedom restrictions to contain the pandemic. Drawing on numerous indicators and a survey experiment from a representative online panel study, we explored the (a) prevalence, (b) consequences, and (c) context of affective polarization between supporters and opponents of COVID-19 containment policies. We found that the majority of supporters and a minority of opponents showed indications of affective polarization. Affectively polarized citizens showed various group biases that make productive political and social interactions less likely. Affective polarization was stable over time and different from partisan and sociostructural conflicts. We raise questions for future research and discuss what it means for democracy when deep political rifts are not captured by main parties in a party system.

Affective Polarization Between Opinion-Based Groups in a Context of Low Partisan Discord: Measuring its Prevalence and Consequences

Affective polarization is the process through which members of opposing political camps develop feelings of animosity toward each other (Iyengar, Sood, & Lelkes, 2012). This form of polarization is distinct from the degree to which groups differ in terms of policy preferences (Fiorina & Abrams, 2008). It captures how members of political camps, through mechanisms of social identification (Tajfel, 1974), develop positive ingroup and negative outgroup perceptions.

So far, the literature on affective polarization has centered on partisanship as a social identity and focused mostly on the United States (Iyengar, Lelkes, Levendusky, Malhotra, & Westwood, 2019; Iyengar et al., 2012; Mason, 2015). Recently, Hobolt, Leeper, and Tilley (2021) demonstrated that processes of affective polarization are not restricted to long-standing, established forms of political identification like partisanship, but can also emerge from new identities that form around extraordinary issues. Using the Brexit campaign as a case, they showed that social identities formed around preferences for remaining or leaving the EU. These identities went hand in hand with ingroup favoritism and outgroup denigration. Although highly instructive, this study is based on evidence from a single campaign in a country characterized by long-standing party polarization.

We use the article by Hobolt et al. (2021) as a starting point, but aim to generalize their findings by examining whether affective polarization between opinion-based groups can also emerge for a new issue in a national context of low partisan discord. Thus, we contribute to the literature by testing whether affective polarization can also emerge in contexts that are not used to understanding politics as a confrontation between two distinct political tribes. In doing so, we respond to the calls for taking research on affective polarization empirically and conceptually beyond partisanship and bipartisan systems.

The contestation of the COVID-19 containment measures in Germany provides a unique case to study a divisive issue in a context of low partisan discord. Over the last decades, Germany's multi-party system has been characterized by rather low levels of political polarization. In response to the pandemic, all established parties initially supported certain freedom restrictions to contain the pandemic. While the populist AfD became the loudest voice against the measures in parliament, it did not manage to unite the opposition to COVID-19 containment, as we show below. The COVID-19 policies remained a contested issue of high salience during the pandemic since they cut deeply into personal freedoms and thus required constant readjustment, deliberative justification, and interest mediation.

We draw on observational and experimental data from three waves of a representative online panel study in Germany ($N_{t1} = 3,207$; $N_{t2} = 2,874$; $N_{t4} = 2,212$) to answer the following questions: Were there indications of affective polarization between opinion-based groups in the COVID-19 crisis? In other words, did citizens who supported or opposed containment develop a sense of belonging to a group of people holding the same views? To what extent did such a belonging result in misperceptions of political opponents and a reduced willingness to interact? To what extent were group biases relevant beyond existing conflicts and stable over time?

Affective Polarization

Mass polarization describes a phenomenon in which citizens' attitudes toward a policy issue are so disparate and "incompatible with each other, [...] that satisfying one side will inevitably frustrate the other side" (Kligler-Vilenchik, Baden, & Yarchi, 2020, p. 2; see also [Lelkes, 2016](#)). In the last two decades, scholars have established that the distance between two groups can result not only from different partisan preferences but also from distinct partisan identities (e.g., [Iyengar et al., 2019, 2012](#)). These political identities then work as any other social identity ([Tajfel, 1974](#)): when membership in a political camp is made salient, people will tend to favor their ingroup and denigrate the outgroup to secure

positive self-esteem. Scholars use the label affective polarization to denote that identity-based processes are rooted in and correlate with ideological conflict, yet ultimately form an independent dimension of mass polarization.

The literature on affective polarization suggests that biases between groups can manifest in various ways. At the core are affective group evaluations, usually measured using feeling thermometers and indicators of perceived social distance (Druckman & Levendusky, 2019). Affective biases can go hand in hand with stereotypes—for example, through the attribution of group traits, the misperception of group compositions (Ahler & Sood, 2018), and hostile meta-perceptions (Moore-Berg, Ankori-Karlinsky, Hameiri, & Bruneau, 2020). These affective and cognitive biases can have behavioral consequences: they can lead to the avoidance of members of the other camp (Yarchi, Baden, & Kligler-Vilenchik, 2021); they may lead to dehumanization (Martherus, Martinez, Piff, & Theodoridis, 2021); they can make political violence more likely (Kalmoe & Mason, 2019).

Up to now, scholars have predominantly studied affective polarization in relation to partisanship. This is reasonable since partisanship is a deep-seated identity that bundles policy preferences over various cleavages, is acquired through socialization, and is regularly activated during election campaigns (Iyengar et al., 2019). The few studies that ventured beyond party support or identification examined group dynamics around other stable and long-standing political attitudes like ideologies (e.g., Mason, 2018). Going hand in hand with this focus on partisanship, affective polarization has been predominantly studied in democracies with bipartisan political systems, in particular the US. In multiparty systems, parties do not situate themselves clearly around two poles and group identification often appears to be weaker (for a comparative perspective, see Reiljan, 2020; Wagner, 2021).

Affective Polarization Beyond Partisanship: Opinion-Based Groups

Recently, Hobolt et al. (2021) branched out to investigate whether affective polarization can also manifest around forms of political identification beyond partisanship.

They drew on the broad social-psychological concept of “opinion-based groups,” that is, groups that form around an opinion but are not tied to pre-existing social identities (Bliuc, McGarty, Reynolds, & Muntele, 2007). Most of this nascent literature has focused on the interplay between opinion-based identities and collective action (McGarty, Bliuc, Thomas, & Bongiorno, 2009; Musgrove & McGarty, 2008). Yet, Hobolt et al. (2021) demonstrated that opinions toward EU membership had developed into strong and lasting social identities during the Brexit campaign. Importantly, these identities cut across partisan lines: “Leavers” and “Remainers” expressed various forms of group bias, independent of their party affiliation. The example of Brexit offers a clear indication that affective polarization is not only a partisan phenomenon; it can also happen around newly formed policy preferences.

At this stage, we know little about where to expect affective polarization between opinion-based groups and how this type of division may differ from partisan animus. Scholars generally claim that differences in opinion are more likely to translate into social identities in times of social struggle or crisis (e.g., referenda, wars), especially if these differences do not align with pre-existing social identities like ethnicity or partisanship (Bliuc et al., 2007; Hobolt et al., 2021; McGarty et al., 2009). Yet, much is unclear beyond that. Brexit was a referendum with two choices, accompanied by a months-long campaign, and held in a country with a history of party polarization. Moreover, opinion camps were about the same size. In other words, affective polarization seems rather likely in this context. So, it is unclear whether affective polarization can also emerge between opinion-based groups in contexts where social sorting is less intuitive.

So far, the discussion on what constitutes affective polarization between opinion-based groups has remained limited (see also Röllicke, 2023). Hobolt et al. (2021, p. 1478) suggested that three components need to be present: “(1) in-group identification based on a shared opinion, (2) differentiation of the in-group from the out-group that leads to in-group favourability and out-group denigration and (3) evaluative bias in perceptions of

the world and in decision making.”

We generally agree with Hobolt et al.’s first two components (and further qualify them below). We argue, however, that including “evaluative bias in perceptions of the world and in decision making” (p. 1478) as a necessary component of affective polarization poses two problems. First, affective polarization needs to be distinguished from its consequences. Biases in the evaluation of political outcomes should be treated as an effect, not as an intrinsic element of affective polarization. This distinction allows us to explore how social and institutional conditions might moderate the impact of affective polarization, even when the level of animosity between opinion groups remains constant. Second, including evaluative bias in the concept of affective polarization might lead to problems of measurement equivalence. Indicators of evaluative bias are usually context-dependent and do not travel well across issues.

We, therefore, adapt Hobolt et al.’s (2021) concept of affective polarization between opinion-based groups, making it distinct from its consequences and easily transferable across issues. We suggest that affective polarization between opinion-based groups can be observed when (1) people have conflicting opinions about the appropriate course of action regarding a specific issue (policy disagreement); (2) they express more positive feelings toward those with the same opinion than toward opponents (affective group bias), and (3) they explicitly identify as members of one opinion-group (identification). When these three conditions are met, we expect that conflict between opinion groups will have consequences for the democratic process, even though the precise nature of these consequences might vary across time and context.

Polarization in the Context of COVID-19

With regard to issue polarization, various studies demonstrated that citizens’ responses to the pandemic systematically varied along partisan lines in the U.S. (e.g., [Allcott et al., 2020](#); [Gollwitzer et al., 2020](#)), in the UK and Canada ([Pennycook, McPhetres, Bago,](#)

& Rand, 2022), in Argentina, Uruguay, and Brazil (Freira, Sartorio, Boruchowicz, Boo, & Navajas, 2020) as well as in Indonesia (Soderborg & Muhtadi, 2020). The existing research suggests that partisanship was most influential where elite polarization was high and parties took distinguishable positions regarding the pandemic and its containment (Pennycook et al., 2022; Soderborg & Muhtadi, 2020). In many European multi-party contexts, support for containment did not vary with voters' preferences for individual parties, but with a preference for governing over opposition parties, respectively a preference for established over protest parties (Jørgensen, Bor, Lindholt, & Petersen, 2021).

Concerning affective polarization, Abrams, Lalot, and Hogg (2021) argued in an essay that a common threat like the pandemic can suppress group divides and unite people in the short term. However, new material and symbolic conflicts will inevitably emerge in a persisting crisis. These conflicts will either fall into existing political demarcation lines or will create new identities. Empirical work shows that affective polarization between partisans of the Republican and the Democratic party in the US indeed decreased at the onset of the crisis (Boxell, Conway, Druckman, & Gentzkow, 2022). Later on, partisan animosity predicted attitudes toward the pandemic and protective behavior, even though the strength of the relationship depended on regional infections (Jungkunz, 2021). In addition, experimental work showed that respondents in five countries preferred that supporters of their party get treated in a COVID-19 triage situation, even though partisanship made markedly smaller differences in comparison to age and chance of survival (Stoetzer et al., 2023).

Apart from partisanship, group conflict has been mainly studied around COVID-19 vaccination. Bor, Jørgensen, and Petersen (2023) demonstrated in multiple studies with participants from up to 21 countries that vaccinated people held exclusionary attitudes and stereotypes toward the unvaccinated. Unvaccinated people did not show comparable biases. Relatedly, Wagner and Eberl (2022) demonstrated that people in Germany and Austria had

developed identities around their stance toward vaccination and stereotyped the outgroup. Group identification was more prevalent and stronger for vaccinated people, and unvaccinated respondents felt ostracized and discriminated against in everyday life and public discourse (see also [Henkel, Sprengholz, Korn, Betsch, & Böhm, 2022](#)).

The German Case

Germany represents a valuable case to study affective polarization between opinion-based groups in the pandemic since it neither has a history of strong party polarization, nor one of long-standing, extra-parliamentary issue polarization. Germany has a multi-party system that is orientated toward organized pluralism and consensus rather than majoritarian decision-making ([Hallin & Mancini, 2004](#)). Furthermore, the country has seen three decades of centrist politics and declining levels of positional polarization ([Munzert & Bauer, 2013](#)). This has been reflected in low levels of affective polarization over the last 30 years ([Boxell, Gentzkow, & Shapiro, 2020](#)). Some authors have noted that the AfD (“Alternative for Germany,” a far-right populist party) has grown in popularity over the last decade ([Bremer & Schulte-Cloos, 2019](#)) and that Germans have been divided over the response to the so-called “refugee crisis” in 2015 ([Bock, 2018](#)). Yet, both developments could have arguably led to a depolarization among parties in the political center.

The pandemic in Germany represents a suitable context to study polarization between opinion-based groups. The response to COVID-19 is a rare example of an issue that persisted for a long time with high salience, yet was not fully captured by an opposition or challenger party (cf. [Arndt, 2018](#); [Carmines & Stimson, 1989](#)). Germany experienced a relatively smooth first COVID-19 wave in early 2020, but was hit harder during the second wave from November 2020 to January 2021 and the third wave from March 2021 to May 2021. The virus and its containment dominated the public and political agenda at the time.

At the onset of the pandemic, consensus was reached among all parties that a lockdown was necessary. Throughout the first year of the pandemic, the liberal FDP and the

right-wing populist AfD took critical stances on the COVID-19 containment policies, problematizing restrictions on individual freedoms and economic consequences. In the case of the AfD, the criticism used strong anti-elitist rhetoric (Louwerse, Sieberer, Tuttnauer, & Andeweg, 2021; Schwörer & Fernández-García, 2022), and many of its members were vocal about their vaccine hesitancy. However, the opposition to containment did not unite unambiguously around a single party, in part because of intra-party conflicts over the issue (e.g., Lewandowsky, Leonhardt, & Blätte, 2022). Instead, the visible protests against the measures were organized by a heterogeneous coalition of formal and informal civil society organizations—mostly from the right-wing spectrum, but also from the esoteric scene (e.g., Frei, Schäfer, & Nachtwey, 2021).

In terms of public opinion, a majority of the population supported the government's response to the pandemic, even though this support decreased over time (Betsch et al., n.d.). Results differ from survey to survey, but estimates suggest that the percentage of Germans who opposed the measures approximately increased from 10% to 30% over the period from March 2020 to September 2021 (Betsch et al., n.d.; Boettcher & Schneider, 2020). Opposition went hand in hand with institutional mistrust and a higher preference for the FDP and, particularly, the AfD (see also Jørgensen et al., 2021). However, not all opponents were voters of the AfD, nor did all AfD voters oppose the measures (Steiner, 2022). Finally, early qualitative evidence found first traces of affective polarization such as people holding stereotypes, experiencing regular conflicts over the issue in their personal networks, and tending to avoid exposure to arguments of the other side (Schieferdecker, 2021).

Research Questions

Based on the literature review, we set out to explore to what extent the German public was affectively polarized over the COVID-19 containment policies. In the first step, we investigated the prevalence of affective polarization by asking (RQ1) how many citizens were affectively polarized and whether this differed between people who supported and

opposed the measures. In the second step, we investigated the consequences of the emerging group identities around COVID-19 containment for productive political discourse and harmonious social interactions. Specifically, we asked whether affectively polarized citizens (RQ2a) assigned negative traits to the other opinion camp and saw their members as less competent conversation partners, (RQ2b) had misperceptions about the composition of the groups, (RQ2c) perceived social distance, and (RQ2d) intended to sanction members of the other camp. In a third step, we contextualized the findings by (RQ3a) investigating whether affective polarization is a significant phenomenon in terms of temporal stability, relative magnitude, and independence from partisan conflict; and by (RQ3b) offering interpretations for the difference in the levels of affective polarization between supporters and opponents of containment.

Data

This study relies on original data from the RAPID-COVID online panel study. We recruited respondents via YouGov's online access panel using quotas for age, gender, education, and region to create a sample representative of the population eligible to vote in Germany. The panel comprises four waves implemented in December 2020, March 2021, May 2021, and September 2021. Two cross-sections accompanied Waves 2 and 4. The data used for this paper mainly come from the second Wave ($N_{t2} = 2,874$), but is complemented with data from other waves for some analyses. Panel attrition was low from Wave 1 to Wave 2 (10.4%) and remained low later. Moreover, a comparison with the cross-sections revealed no systematic attrition bias. Therefore, we consider our data to be representative of the German electorate.

The survey was conducted in German. The full wording, data, and code to replicate the analyses can be found in the Online Supplementary Material at <https://doi.org/10.17605/OSF.IO/JSDVR>. This article richly describes and contextualizes the form, prevalence, and consequences of affective polarization. All analyses presented here

are original. Due to the multitude of indicators used, we present the measures and results within the respective sections below. All the results are adjusted using post-stratification weights.

The Prevalence of Affective Polarization Around COVID-19 Containment

Following the conceptual discussion above, we used three constructs to measure the prevalence of affective polarization: policy preference, group affect, and explicit identification. To assess *policy preference* with regards to COVID-19 containment, we asked respondents how they evaluated the containment measures on an 11-point-scale ranging from (0) “I totally reject the measures” to (10) “I totally support the measures.” A majority of the German population supported the measures to contain the pandemic in March 2021 (61% scored over 5 on our scale). Only 26% were against the measures and 12% were neutral. So, we found a clear majority-minority constellation with a continuum of support/opposition within each group. Analyses of additional items (see Supplementary Figure S1) assured us that opposition was based on the belief that measures were going too far (rather than not far enough): Overall support for the measures was consistently and positively correlated with support for various specific policies, for example, contact restrictions, the obligation to wear masks, or the closure of schools.

To identify *affectively* polarized respondents, we further split respondents with a policy preference (in favor or against the measures) based on group affect and explicit identification. To assess *group affect*, we used feeling thermometers, one of the standard indicators in the affective polarization literature (Druckman & Levendusky, 2019). We asked respondents to indicate their feelings toward people who supported and those who opposed COVID-19 containment on a thermometer ranging from (-5) “very cold and negative” to (+5) “very warm and positive.” Group order was randomized. Supporters are considered affectively biased if they expressed more positive feelings toward people supporting the measures than toward people who oppose the measures ((feelings toward supporters -

feelings toward opponents) > 0); the opposite is true for affectively biased opponents. To assess *explicit group identification*, we asked respondents whether they identified with “the group of people who support the measures,” “the group of people who oppose the measures,” or “none of these groups.”

Figure 1 shows the distribution of affective bias and explicit identification among people in favor of or against the measures. We found a pattern of asymmetric affective polarization. Among supporters, the proportion of respondents meeting our second and third criteria for affective polarization is much higher (80%) than among opponents (32%).



Figure 1

Prevalence of affective polarization among respondents in favor of and against the COVID-19 measures in Germany in March 2021. Note: Each dot represents one respondent. 87% of the respondents in our sample were either in favor of ($N = 1,791$) or against ($N = 731$) the COVID-19 measures.

The Consequences of Affective Polarization Around COVID-19 Containment

Having established the existence and prevalence of affective polarization among opinion-based groups around COVID-19 in Germany, we tested whether this affective

polarization went hand in hand with negative consequences for political and social cohesion. Specifically, we investigated whether the citizens who were affectively polarized harbored explicitly negative attitudes toward the outgroup (beyond group affect), held stereotypes about the sociodemographic composition of the outgroup, perceived social distance toward the outgroup, and were more likely to act against the outgroup. All of these group biases could lead to a situation where polarized citizens no longer seek to interact with members of the other side and engage with their arguments (Yarchi et al., 2021). In the following analysis, we refer to *polarized supporters* and *opponents* as those having met the three criteria of affective polarization detailed above.

Biases in the Evaluation of Opinion-Based Groups

Citizens are more likely to engage with the other political camp if members of this camp are seen as suitable conversation partners. We measured two dimensions of group perception: *generalized group traits* and perceived discourse qualities. To assess generalized group traits, we asked respondents in Wave 2 to rate “people who oppose” and “people who support the containment measures” on four positive (“unselfish,” “open,” “honest,” “intelligent”) and four negative attributes (“selfish,” “narrow-minded,” “hypocritical,” “uneducated”). Respondents answered on a five-point scale ranging from (1) “does not apply at all” to (5) “absolutely applies.” This is a common measurement of affective bias in the polarization literature (Druckman & Levendusky, 2019). Group order was randomized.

To assess the perceived *discourse qualities* of the groups, we developed an indicator based on ideals of deliberative discourse as captured by the discourse quality index (Steenbergen, Bächtiger, Spörndli, & Steiner, 2003). Using a five-point Likert scale ranging from (1) “strongly disagree” to (5) “strongly agree,” respondents reported in Wave 1 to what extent six statements (for example, “Their arguments are plausible” and “They consider opposite arguments seriously”) applied to people who support and people who oppose the

measures.¹ Items and group orders were randomized.

Figure 2 reveals a clear pattern of group bias. Affectively polarized respondents consistently attributed positive traits to their ingroup and negative traits to the outgroup. On average, polarized supporters rated opponents 2.1 points higher on negative traits and 1.7 points lower on positive traits. Polarized opponents were almost as critical of their outgroup, rating supporters 2.0 points higher on negative traits and 1.6 points lower on positive traits.

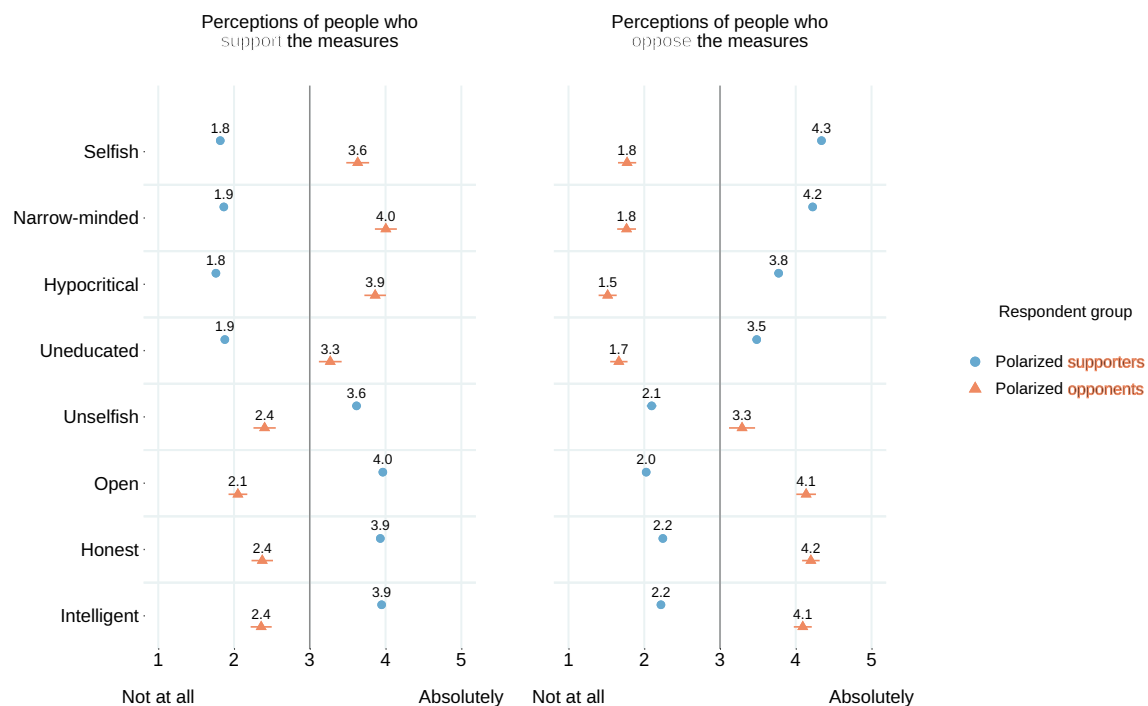


Figure 2

Traits assigned to supporters and opponents of the COVID-19 measures in Germany in March 2021. Note: Each point represents a weighted mean score on a 1–5 scale with 95% confidence intervals. The unweighted N varies between 1,343 and 1,406 for polarized supporters and between 221 and 229 for polarized opponents.

As presented in Figure 3, we also found a clear pattern of group bias for perceived discourse qualities. Polarized supporters perceived people in favor of the measures as more

¹ Note that this question was asked in Wave 1, but the full set of indicators to classify respondents as affectively polarized was developed three months later in Wave 2. We therefore match the responses of the polarized groups in March 2021 to their evaluation of discourse quality in December 2020.

suitable conversation partners than people who were against the measures. The opposite was found for polarized opponents. However, polarized opponents showed slightly lower levels of bias than polarized supporters.

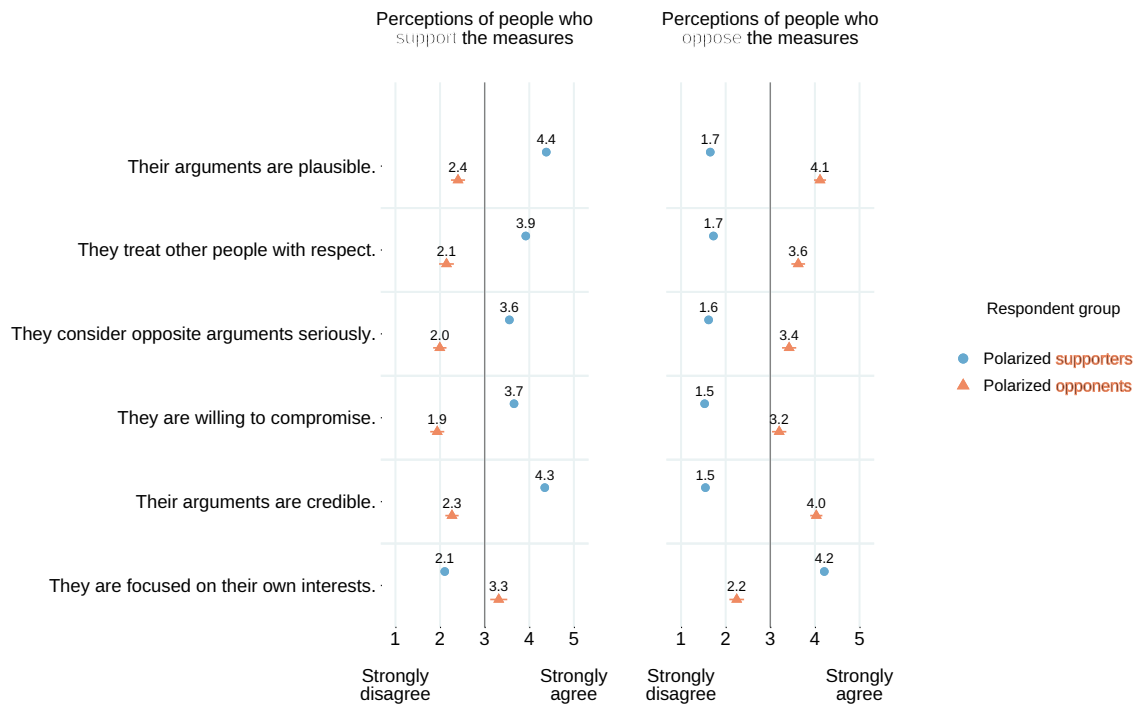


Figure 3

Discourse qualities attributed to supporters and opponents of the COVID-19 measures in Germany in December 2020. Note: Each point represents a weighted mean score on a 1–5 scale with 95% confidence intervals. The unweighted N varies between 1,372 and 1,423 for polarized supporters and between 215 and 227 for polarized opponents.

Biases in the Beliefs About the Composition of Opinion-Based Groups

Scholars have shown that affective polarization can go hand in hand with a misperception of the sociodemographic composition of the groups (Ahler & Sood, 2018). These stereotypes may increase the perceived distance between the groups and make interactions less likely. In Wave 2, we asked a subset of respondents what kind of individuals they perceived to be part of each group. Using a scale from 0% to 100% with 10% intervals, respondents reported in seven items what percentage of opponents and supporters they believed matched the following seven attributes: (1) “are male,” (2) “have a college degree,”

(3) “are voters of the [right-wing populist] AfD,” (4) “are aged between 18 and 30,” (5) “have a net personal income below EUR 1 500,” (6) “are voters of the [left-liberal] Greens,” and (7) “are older than 60.”

Figure 4 reports the average estimates from polarized supporters and opponents. For certain (mostly positive) characteristics, the groups’ guesses mirrored each other. Polarized respondents from both camps thought that people from their opinion group were more likely to have a college degree, were more likely to be aged under 30, and were less likely to have a low income. For other characteristics, the groups’ perceptions aligned, which suggests that certain stereotypes transcended group boundaries. Specifically, respondents thought that people who were against the measures were slightly more often male, were more likely to vote for the AfD, were less likely to vote for the Greens, and were less often older than 60 years. Even if beliefs about the direction of these group differences roughly matched the real distribution, the *size* of the gaps between the groups was largely overestimated. Polarized supporters estimated that there were about 40 percentage points more AfD voters among opponents than among supporters; yet, the actual gap is closer to 20 points. Similarly, polarized supporters largely overestimated the difference in the share of Green voters in the two groups. These results suggest that stereotypes amplified compositional differences between the groups.

Biases in Social Distance Toward Opinion-Based Groups

Having established that polarized respondents held negative attitudes and stereotypes about their political opponents, we wanted to test whether affective polarization affected people’s willingness to socially interact with the other camp. In Wave 1, we asked respondents to imagine a hypothetical scenario in which they talk to a new neighbor for the first time. We randomly described the neighbor as either “supporting” or “opposing” the containment measures.

After reading the vignette, respondents reported how much social distance they felt

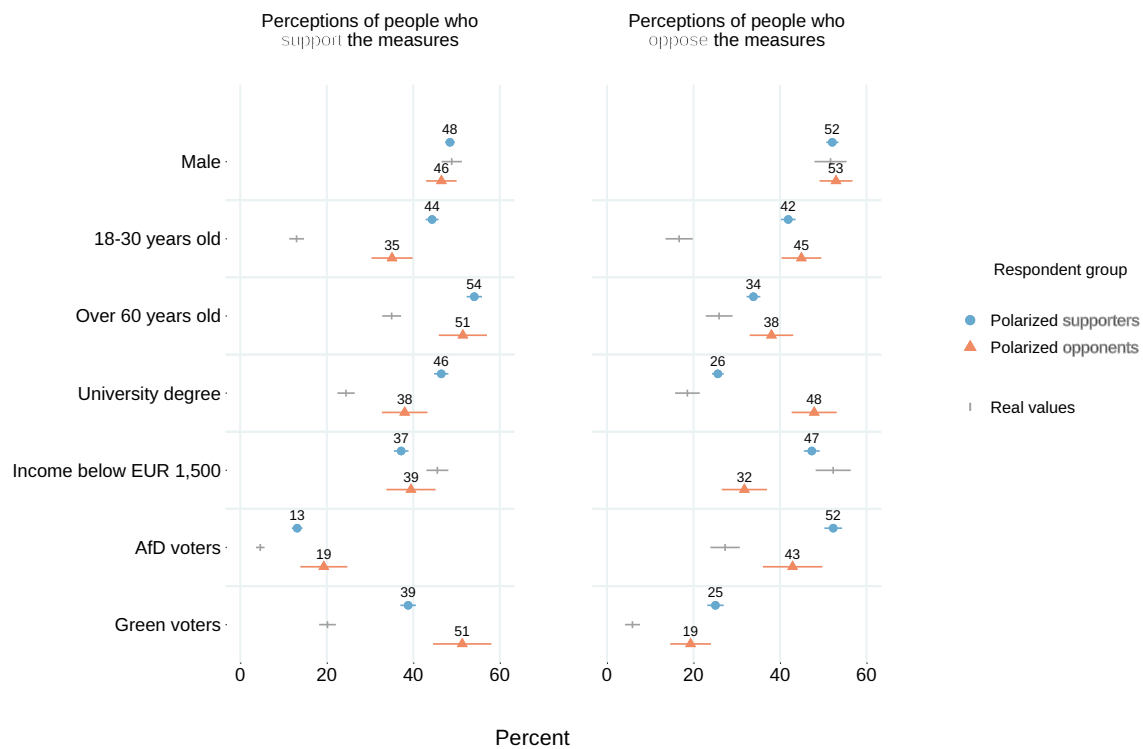


Figure 4

Perceived and actual group composition of supporters and opponents of the COVID-19 measures in Germany in March 2021. Note: Respondents were not given any indication of the actual group compositions. Real values are based on policy preferences as indicated in our survey. Each point represents a weighted mean score on a 0–100% scale (with 10% increments) with 95% confidence intervals. The unweighted N varies between 554 and 634 for polarized supporters and between 81 and 92 for polarized opponents. The unweighted N used to obtain the real values varies between 1,533 to 1,791 for supporters and between 613 and 731 for opponents.

toward this neighbor. Social distance is an established indicator in the affective polarization literature and we adapted items from prior work to our vignette (e.g., [Iyengar et al., 2012](#)). Using four-point scales ranging from (1) “no, never” to (4) “yes, definitely,” respondents indicated whether they would like to “stay in touch” with the neighbor, “invite the neighbor for a coffee if feasible,” talk to the neighbor about “private matters” and “political issues,” and give “their neighbor the keys of their apartment, for example during a vacation.” Since all items loaded on one factor (eigenvalue > 1), we created an index by extracting the factor and inverting it, so that higher values represent a larger social distance. To improve

readability, we then rescaled the index, so that 0 represents the minimum value (very close) and 1 the maximum value (very far).²

Figure 5 reports predicted values obtained from a linear model of social distance (see also Supplementary Table S1). We modeled social distance as a function of the experimental treatment (coded 1 if the neighbor supports the measures and 0 if he opposes them), the group of the respondent (coded 1 if the respondent is a polarized supporter and 0 if the respondent is a polarized opponent; all other observations are excluded), and an interaction of the last two variables. Our results suggest that affective polarization had a causal effect on social distance. Polarized supporters felt less socially distant from the neighbor if he was in favor of the measures and significantly more distant if he was against the measures. Polarized opponents felt less distant from a neighbor who was against the measures than from a neighbor who was in favor of the measures. Pairwise comparisons using the Tukey method showed that the treatment had a significant effect for both polarized supporters and polarized opponents.

Biases in the Intent to Sanction Members of the Opinion-Based Groups

Finally, we tested whether polarized citizens would also intend to act against their political opponents. We conducted another vignette study to test whether polarized supporters and opponents responded differently to noncompliance with the containment measures. The context of noncompliance can be considered a soft test, in which one would expect to observe differences if they existed. In Wave 2, we asked respondents to imagine the

² The results reported here are part of a larger experiment. Along with the design presented here, we ran two alternative experimental designs in parallel. In the first of these two, we revealed that the neighbor was either left-wing or right-wing. In the second, the position of the neighbor varied along two dimensions: left-wing/right-wing and support of/opposition to the measures. The three designs have been publicly presented together on various occasions. In the version presented here, we made slight changes to the analysis plan. To improve consistency with the focus of this paper, participants are sorted by affective polarization (in March 2021) rather than by issue position, as was originally planned. To improve readability, we also rescaled the outcome variable and added pairwise comparisons. The following link points to the preregistration: <https://doi.org/10.17605/OSF.IO/HVNQD>. The results according to the pre-analysis plan can be found in Supplementary Table S2. The direction and the statistical significance of the interaction effect (the main effect of interest) are comparable in both versions.

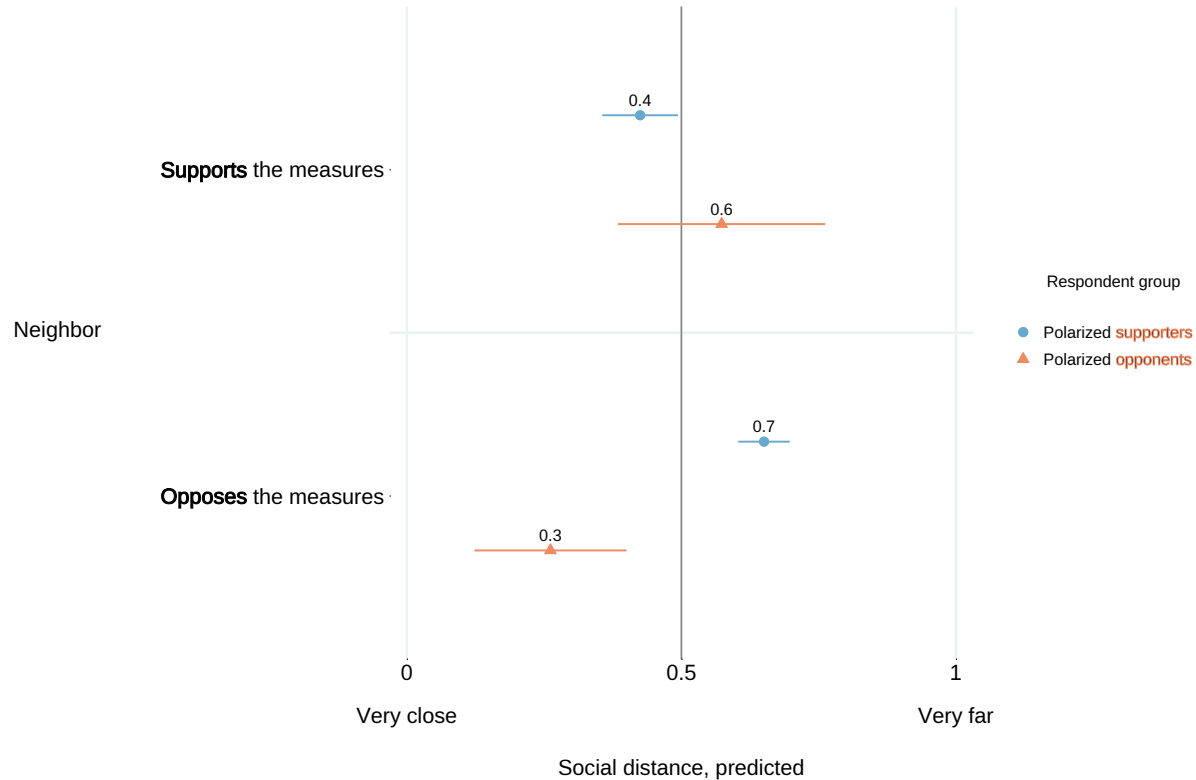


Figure 5

Social distance toward supporters and opponents of the COVID-19 measures in Germany in December 2020. Note: Predicted values with 95% confidence intervals were obtained from a linear model of social distance. Results vary as a function of the experimental treatment (the neighbor supports vs. opposes the measures) and the respondents receiving the treatment (polarized supporters and polarized opponents). The unweighted N is 139 for polarized supporters and 21 for polarized opponents.

following situation: They observe their neighbor inviting five people into his home; nobody is wearing a mask or keeping a safe distance, even though this was required by law at the time of the data collection.

After reading the vignette, respondents reported whether they would sanction their neighbor on an 11-point scale ranging from (0) “very unlikely” to (10) “very likely.” Specifically, we asked participants whether they would “complain about the neighbor to other people,” “talk to the neighbor about the situation later,” “avoid close contact with the neighbor,” and “report the neighbor to the authorities.” Since all four items loaded on a single factor (eigenvalue > 1), we extracted the factor and used it as our outcome variable.

Again, we rescaled the index, so that 0 is the minimum value (very unlikely to sanction) and 1 the maximum value (very likely to sanction).

To increase the robustness of our design, we randomly assigned one of four descriptions of the neighbor's meeting to our respondents (for a justification of this design, see [Dafoe, Zhang, & Caughey, 2018](#)). In the vignette, the neighbor was either organizing a meeting for a local committee of (a) the AfD, (b) the Greens, (c) a sports team, or (d) a Muslim community group. By describing the neighbor as a prototypical opponent (AfD), as a prototypical supporter (Greens), or as a neutral person, we controlled for negative attitudes that respondents may have held toward social categories that were stereotypically associated with opposition to the measures (e.g., AfD voters; see above).

We split the sample between respondents in favor of the measures (support for containment > 5) and respondents who were against the measures (support for containment measures < 5) and estimated two separate linear models. We regressed the intention to sanction the neighbor on our measure of affective polarization (none vs. affectively polarized) while controlling for the strength of attitudes toward containment, membership in a risk group, gender, age, education, and vignette type.

Figure 6 shows the results of the two models. Polarized supporters showed a significantly higher level of intent to sanction the neighbor than people who were in favor of the measures but not affectively polarized (see also Supplementary Tables [S3–S4](#)). In contrast, affectively polarized opponents showed significantly lower levels of intent to sanction the neighbor than people who were against the measures but not affectively polarized.

The Context of Affective Polarization Around COVID-19 Containment

We have shown that large portions of the German public were affectively polarized about the COVID-19 containment measures and that affective polarization had a detrimental effect on the quality of social interactions between the opinion camps. In the

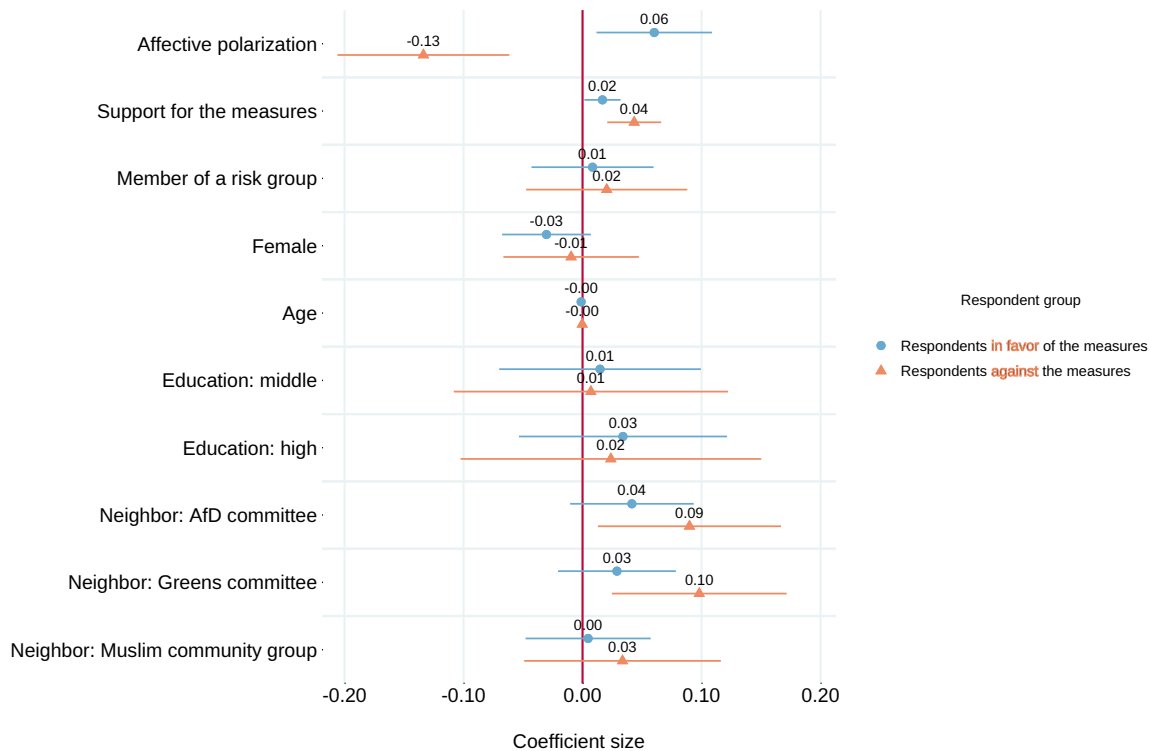


Figure 6

Intentions to sanction a non-compliant neighbor based on affective polarization and various controls in March 2021. Note: The figure shows coefficients with 95% confidence intervals from two linear models estimated separately for people in favor of and against the measures. The reference category for education was “low” and the reference category for vignette type was “Neighbor: sports club committee.” Positive values mean a higher intent to sanction the neighbor. The unweighted N is 712 for supporters and 298 for opponents.

third and final step, we contextualize and discuss these findings. Specifically, we discuss the significance of the observed affective polarization, offer possible explanations for its asymmetric form, contrast the results with those obtained with respondents classified by political preference only, and reflect on limitations.

The Significance of Affective Polarization Around COVID-19 Containment

We use additional data from our survey to assess the substantive significance of the phenomenon, focusing on the independence of affective polarization from traditional partisan conflict and its stability over time. To establish the *independence from traditional partisan conflict*, we assessed vote choice and sociodemographics using standard measures and

examined whether affectively polarized citizens systematically differ in these respects. To assess the *temporal stability* of the phenomenon, we measured our three core dimensions of affective polarization—policy preference, group affect, and explicit group identification—again in Wave 4. To establish the *relative magnitude* of the phenomenon in comparison to partisan conflict, we measured party identification and evaluations of individual parties using measures from the German Longitudinal Election Study (GLES). Evaluations ranged from (-5) “I do not think much of this party at all” to (+5) “I think a great deal of this party” in Wave 2.

We found that affective polarization around COVID-19 was intertwined with, but not fully explained by, party conflict and underlying socio-structural cleavages. Figure 7 shows that polarized opponents were slightly more likely to be men, less likely to be older than 60, more likely to have an income below EUR 1 500, and less likely to have a university degree than the average respondent. However, given the overlapping confidence intervals, these distributions should not be overinterpreted as a clash between older respondents with higher cultural and economic capital and a slightly younger, less economically well-off segment of the population. Differences in voting intentions were more substantial. We found that polarized supporters were predominantly recruited from voters of the government parties (see also [Jørgensen et al., 2021](#)) as well as from the progressive-left opposition. In contrast, polarized opponents were much more likely to support the AfD. Nevertheless, the association between intending to vote for the AfD and being a polarized opponent was by no means perfect: a minority of AfD voters (35%) were actually polarized opponents (see also [Steiner, 2022](#)).

Our data show that the observed affective polarization was not an idiosyncrasy resulting from the political events that occurred around the time of our first two survey waves. When we repeated our measurements in September 2021, we found that 81% of the respondents that we had classified as affectively polarized in March 2021 were still polarized 6 months later.

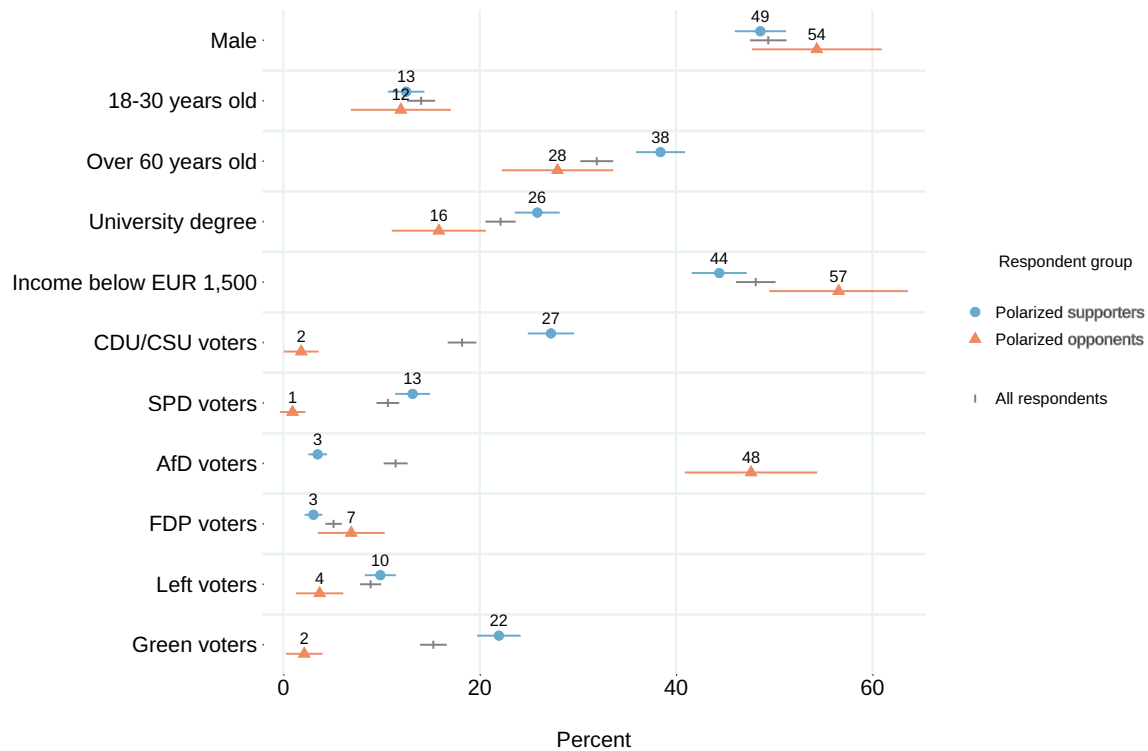


Figure 7

Sociodemographic background and voting intentions of polarized supporters and opponents in March 2021. Note: Each point represents a weighted percentage with 95% confidence intervals. The unweighted N varies between 1,239 and 1,445 for polarized supporters and between 199 and 230 for polarized opponents. The unweighted N for all respondents varies between 2,437 and 2,874.

Finally, our data indicate that the animosity between supporters and opponents of the COVID-19 policies was at least as strong as the animosity in the party system (see Supplementary Figures S7–S9). The affective biases among opponents and supporters of the COVID-19 policies were considerably stronger than the biases that partisans of the Christian conservative CDU/CSU and the social democratic SPD—the traditional competitors for the federal government—showed when evaluating the two parties. Compared to partisans’ ratings of the progressive Greens and the right-wing populist AfD—the parties representing the “transnational cleavage” in Germany (Hooghe & Marks, 2018)—the biases of opponents and supporters of the COVID-19 policies were slightly less pronounced, although the group bias shown by supporters was almost as strong.

Explanations for the Asymmetric Nature of Affective Polarization Around COVID-19 Containment

Both opinion camps showed signs of affective polarization, and affectively polarized members of both camps showed comparable group biases. However, a significantly smaller proportion of opponents were affectively polarized. Similar observations of asymmetric polarization have recently been made regarding COVID-19 vaccination (Wagner & Eberl, 2022). We argue that the asymmetry is likely due to majority–minority effects, stereotyping effects, and the particular nature of the underlying issue positions. We collected preliminary data to validate these assumptions. First, we measured the *association between opinion strength and affective polarization*. Second, we measured respondents’ *perceptions of the distribution of opinions*. To do this, we asked respondents to estimate, in 10% increments, the percentage of people in Germany who supported and opposed containment at the time of the survey. Third, we also assessed respondents’ *attitudes toward radical opponents* by asking them in all waves how they felt about “more radical opponents who have taken to the streets” on the same feeling thermometers introduced above. This question always appeared on the page following the feeling thermometers for the regular opinion groups.

We have shown that people who opposed the measures were generally less likely to express affective group bias and to self-identify with their opinion camp. Further analysis also showed that the relationship between opinion strength and affective polarization varied between the two opinion groups. In Wave 2, among people in favor of containment (support > 5), even respondents with a moderate preference (support = 6) had a 60% probability of being affectively polarized; the probability increased to 86% for respondents with a very strong preference (support = 10). Among those opposed to containment (support < 5), affective polarization only reached a majority among respondents with a very strong opinion (support = 0). 60% of respondents in this category were affectively polarized. In other words, animosity was dominant among supporters while it was rather marginal

among opponents.

Respondents had a good sense of the proportions of people who supported and opposed the measures. On average in Wave 2, respondents estimated that there were 61% supporters and 32% opponents. In other words, supporters were aware of their majority status. The majority–minority constellation, as well as the peculiarities of the issue positions, may have made it easier for supporters to identify with and develop warmer feelings toward their group.

Finally, our data suggested that moderate opponents were generally perceived as radical. When we asked respondents to report their feelings about “more radical” opponents who “took to the streets,” supporters gave them almost exactly the same ratings as “normal” opponents: on average in Wave 2, -3.61 for radical opponents compared to -3.56 for opponents in general.

To the best of our knowledge, systematic evidence on elite cues and the portrayal of opponents and supporters in German media and parliamentary discourse is lacking so far. However, abstracting from our findings and anecdotal impressions, we can provide a compelling explanation for the asymmetry. It is safe to say that opposition to the measures was predominantly covered in the context of the protests and actions of more radical opponents. Many of the largest protests were co-opted by right-wing extremists and conspiracy theorists, and in some cases, they ended in violence. Moreover, political elites in favor of the measures were larger in numbers and more visible, so their castigating of opponents may have been more influential than that of elites opposing the measures. Finally, the moral justification for the positions was different: Support for the measures was generally legitimized by the goal of protecting lives—one’s own and others’—whereas opposition was justified by more abstract threats to constitutional freedoms and the economy.

In this symbolic environment, supporters may have perceived opponents as a small

faction that deviated from a broad consensus, pursued particular or even selfish interests in times of crisis, believed in conspiracy theories after being radicalized in their social media bubbles, and were open to cooperate with right-wing extremists (see also [Schieferdecker, 2021](#)). These negative stereotypes probably made it easier for supporters to identify with their group—the majority with urgent moral imperative—and to vilify the threatening minority of opponents. At the same time, these stereotypes and the actual composition of the group may have made it more difficult for people who opposed the measures to feel warm about their group and explicitly identify with it. In particular, people from the political center who moderately opposed containment may have felt alienated from the large share of AfD voters and other opponents with high levels of institutional distrust ([Frei et al., 2021](#); [Jørgensen et al., 2021](#)). In line with that notion, prior research suggests that opponents of vaccination and containment felt discriminated against and ostracized in public discourse and in their personal lives ([Schieferdecker, 2021](#)). While this alienation may have led to a greater sense of unity among radical opponents, it may also have led to resignation and apathy among more moderate opponents. To some extent, moderate opponents may even have adjusted their responses in our survey to avoid falling into stereotypes about radical opponents. Lastly, as a minority, people who opposed the measures will likely have had more exposure to political opponents in their personal networks, making it more difficult to stereotype and denigrate supporters.

Alternative Classification

Based on the existing literature, we used the co-occurrence of ingroup identification, affective bias, and policy preference as criteria to define who was affectively polarized and then described the extent to which this subpopulation exhibited group biases that made fruitful social and political interactions less likely. As a final step, we simplified our classification criteria and reran all analyses (except those for Figures 1 and 6), grouping our respondents only by their policy preference, regardless of whether they showed affective bias and/or ingroup identification. All respondents who were undecided were dropped from the

analysis. The analysis shows that the patterns that we previously observed in the data are not an artifact of our measure of affective polarization.

While the biases were less pronounced with the alternative classification, we still found clear signs of animosity between the two groups (see Supplementary Figures S2–S6). Moreover, the asymmetry grew larger: Respondents who supported the measures did not differ much from effectively polarized supporters, but people who opposed the measures showed considerably less group biases than polarized opponents. Finally, the association between opinion group membership and sociodemographic characteristics and partisan preferences was even weaker than for the affectively polarized camps.

These findings are in line with our earlier explanations. They highlight that issue-based affective polarization, as we define it, may be preceded by weaker forms of group animosity. Future studies should examine the conditions under which political disagreement over a cross-cutting issue leads to affective bias, identification, or both. Particularly, our final component, identification, can be considered a hard test in the case of emerging issues where group labels may not yet have crystallized in public discourse.

Limitations

Based on our social distance experiment and the non-compliance vignette, we are confident that affective polarization between opinion-based groups has a causal effect on behavioral intentions. However, when it comes to beliefs such as stereotypes and misperceptions, we cannot, given the nature of our data, test the direction of the causal relationship. Because these beliefs are more cognitively demanding than the raw affective response that we captured with our measure of affective polarization, we think it is plausible that they are products rather than causes of affective polarization. Nevertheless, stereotypes and misperceptions may also reinforce patterns of hostility between opinion-based groups. More longitudinal studies are needed to disentangle these complex causal dynamics.

Three other points should be mentioned. First, we did not perform an attention check after the neighbor experiment. As a result, our observed effects may underestimate the true effect of group membership on social distance (Kane & Barabas, 2019). Second, the indicator that we used to measure group bias among partisans did not exactly match the measurement of affective polarization in the pandemic. Our findings should motivate future research to systematically compare group biases between partisans and across issues using the exact same measures. Third, future studies could use more distant indicators to measure how affective polarization affects social and political interactions (e.g., sanctioning behavior outside the issue context, such as returning a lost wallet).

Implications and Conclusion

Using observational and experimental data, we found manifest group biases between supporters and opponents of the COVID-19 containment measures in Germany. Our study corroborates recent findings by Hobolt et al. (2021) by showing that affective polarization is not tied to long-lasting forms of political identity such as partisanship, but can emerge within a short period between newly formed opinion-based groups. In contrast to the aforementioned study, we observed this phenomenon in a context that does not have a long history of polarized politics. Moreover, the opinion-based groups in our study were not the result of long, divisive campaigns and were not as clearly defined as in the case of a referendum. In other words, our study has shown that affective polarization can divide citizens even in situations where social sorting is less intuitive.

Our study has made a strong case that scholars should look beyond partisanship to understand the full impact of group identities on political contestation. Political science scholarship has documented how parties occasionally fail to address new conflicts that transcend traditional cleavages (Mainwaring, 2006). Our study has suggested that the phenomenon of affective polarization may permeate many of these political contexts, even when polarization has not been a defining feature of the political culture. Several research

questions call for future investigation: Under what circumstances does policy disagreement evolve into issue-based affective polarization? What contexts are most conducive to this phenomenon? How long do issue-based political identities persist and how strong are they relative to partisanship and other forms of social identities? How do affective polarization and issue position interact over time? How do new identities born out of polarizing issues interact with partisanship? Can issue-based affective polarization be a catalyst for voter alignment? And the other way around: What happens to partisan identification when it collides with opinion-based identities?

The research agenda that emerges from the growing evidence of affective polarization between opinion-based groups has high social relevance. Had we studied the COVID-19 containment controversy with a narrow focus on partisanship, we would have missed the full divisive potential of the issue. If opinion-based identities hinder deliberation over an issue, they may push citizens into a vicious circle of further polarization and radicalization. If a new issue is not captured by divisions in the party system (cf. [Carmines & Stimson, 1989](#)), citizens may feel increasingly unheard and doubt the responsiveness of political institutions in general ([Hetherington & Rudolph, 2015](#)). As a result, citizens may be less motivated to comply with laws that are consensual across parties—a situation that could have dire consequences in times of crisis. In addition, group conflicts may escalate. To find strategies to mitigate these divides, we need to deepen our understanding of the nature of affective polarization between opinion-based groups.

Conflict of interests

The authors do not report any conflict of interest.

Acknowledgment

We thank Teodora Bibu, Dennis Klinke, Teresa Haußmann, and Katrin Schmitz for their support during the data collection and preparation of the manuscript.

Funding

This work was supported by the German Federal Ministry for Education and Research, grant 01KI20539.

Supplementary Data

Supplementary material, data, code, and survey questions are available at <https://doi.org/10.17605/OSF.IO/JSDVR>.

References

- Abrams, D., Lalot, F., & Hogg, M. A. (2021). Intergroup and intragroup dimensions of COVID-19: A social identity perspective on social fragmentation and unity. *Group Processes & Intergroup Relations*, 24(2), 201–209. <https://doi.org/10.1177/1368430220983440>
- Ahler, D. J., & Sood, G. (2018). The Parties in Our Heads: Misperceptions about Party Composition and Their Consequences. *The Journal of Politics*, 80(3), 964–981. <https://doi.org/10.1086/697253>
- Allcott, H., Boxell, L., Conway, J., Gentzkow, M., Thaler, M., & Yang, D. (2020). Polarization and public health: Partisan differences in social distancing during the coronavirus pandemic. *Journal of Public Economics*, 191, 104254. <https://doi.org/10.1016/j.jpubeco.2020.104254>
- Arndt, C. (2018). An Empirical Model of Issue Evolution and Partisan Realignment in a Multiparty System. *Political Research Quarterly*, 71(1), 59–74. <https://doi.org/10.1177/1065912917722234>
- Betsch et al. (n.d.). *COSMO — COVID-19 Snapshot Monitoring*. Retrieved from <https://projekte.uni-erfurt.de/cosmo2020/web/>
- Bliuc, A.-M., McGarty, C., Reynolds, K., & Muntele, D. (2007). Opinion-based group membership as a predictor of commitment to political action. *European Journal of Social Psychology*, 37(1), 19–32. <https://doi.org/10.1002/ejsp.334>
- Bock, J.-J. (2018). State Failure, Polarisation, and Minority Engagement in Germany's Refugee Crisis. *International Journal of Politics, Culture, and Society*, 31(4), 375–396. <https://doi.org/10.1007/s10767-018-9288-8>
- Boettcher, B., & Schneider, S. (2020). Polarisation in Germany – fuelled but not caused by the corona crisis. *Deutsche Bank Research*, 1–15.
- Bor, A., Jørgensen, F., & Petersen, M. B. (2023). Discriminatory attitudes against unvaccinated people during the pandemic. *Nature*, 613(7945), 704–711.

<https://doi.org/10.1038/s41586-022-05607-y>

- Boxell, L., Conway, J., Druckman, J. N., & Gentzkow, M. (2022). Affective Polarization Did Not Increase During the COVID-19 Pandemic. *Quarterly Journal of Political Science*, 17(4), 491–512. <https://doi.org/10.1561/100.00021027>
- Boxell, L., Gentzkow, M., & Shapiro, J. (2020). Cross-Country Trends in Affective Polarization. *NBER Working Paper Series*, (26669), 1–60. <https://doi.org/10.3386/w26669>
- Bremer, B., & Schulte-Cloos, J. (2019). The Restructuring of British and German Party Politics in Times of Crisis. In S. Hutter & H. Kriesi (Eds.), *European Party Politics in Times of Crisis* (pp. 281–301). Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108652780.013>
- Carmines, E. G., & Stimson, J. A. (1989). *Issue Evolution: Race and the Transformation of American Politics*. Princeton: Princeton University Press.
- Dafoe, A., Zhang, B., & Caughey, D. (2018). Information Equivalence in Survey Experiments. *Political Analysis*, 26(4), 399–416. <https://doi.org/10.1017/pan.2018.9>
- Druckman, J. N., & Levendusky, M. S. (2019). What do we measure when we measure affective polarization? *Public Opinion Quarterly*, 83(1), 114–122. <https://doi.org/10.1093/poq/nfz003>
- Fiorina, M. P., & Abrams, S. J. (2008). Political Polarization in the American Public. *Annual Review of Political Science*, 11, 563–588. <https://doi.org/10.1146/annurev.polisci.11.053106.153836>
- Frei, N., Schäfer, R., & Nachtwey, O. (2021). Die Proteste gegen die Corona-Maßnahmen: Eine soziologische Annäherung. *Forschungsjournal Soziale Bewegungen*, 34(2), 249–258. <https://doi.org/10.1515/fjsb-2021-0021>
- Freira, L., Sartorio, M., Boruchowicz, C., Boo, F. L., & Navajas, J. (2020). *The irrational interplay between partisanship, beliefs about the severity of the*

COVID-19 pandemic, and support for policy interventions. PsyArXiv.

<https://doi.org/10.31234/osf.io/4cgfw>

- Gollwitzer, A., Martel, C., Brady, W. J., Pärnamets, P., Freedman, I. G., Knowles, E. D., & Van Bavel, J. J. (2020). Partisan differences in physical distancing are linked to health outcomes during the COVID-19 pandemic. *Nature Human Behaviour*, *4*(11), 1186–1197. <https://doi.org/10.1038/s41562-020-00977-7>
- Hallin, D. C., & Mancini, P. (2004). *Comparing Media Systems: Three Models of Media and Politics*. Cambridge: Cambridge University Press.
- Henkel, L., Sprengholz, P., Korn, L., Betsch, C., & Böhm, R. (2022). The association between vaccination status identification and societal polarization. *Nature Human Behaviour*, *7*(2), 231–239. <https://doi.org/10.1038/s41562-022-01469-6>
- Hetherington, M. J., & Rudolph, T. J. (2015). *Why Washington Won't Work: Polarization, Political Trust, and the Governing Crisis*. Chicago: University of Chicago Press.
- Hobolt, S. B., Leeper, T. J., & Tilley, J. (2021). Divided by the Vote: Affective Polarization in the Wake of the Brexit Referendum. *British Journal of Political Science*, *51*(4), 1476–1493. <https://doi.org/10.1017/S0007123420000125>
- Hooghe, L., & Marks, G. (2018). Cleavage theory meets Europe's crises: Lipset, Rokkan, and the transnational cleavage. *Journal of European Public Policy*, *25*(1), 109–135. <https://doi.org/10.1080/13501763.2017.1310279>
- Iyengar, S., Lelkes, Y., Levendusky, M., Malhotra, N., & Westwood, S. J. (2019). The Origins and Consequences of Affective Polarization in the United States. *Annual Review of Political Science*, *22*(1), 129–146. <https://doi.org/10.1146/annurev-polisci-051117-073034>
- Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, Not Ideology: A Social Identity Perspective on Polarization. *Public Opinion Quarterly*, *76*(3), 405–431. <https://doi.org/10.1093/poq/nfs038>

- Jørgensen, F., Bor, A., Lindholt, M. F., & Petersen, M. B. (2021). Public support for government responses against COVID-19: Assessing levels and predictors in eight Western democracies during 2020. *West European Politics*, *44*(5-6), 1129–1158. <https://doi.org/10.1080/01402382.2021.1925821>
- Jungkunz, S. (2021). Political Polarization During the COVID-19 Pandemic. *Frontiers in Political Science*, *3*, 622512. <https://doi.org/10.3389/fpos.2021.622512>
- Kalmoe, N. P., & Mason, L. (2019). Lethal Mass Partisanship: Prevalence, Correlates, and Electoral Contingencies. *Prepared for Presentation at the January 2019 NCAPSA American Politics Meeting*, 1–41.
- Kane, J. V., & Barabas, J. (2019). No Harm in Checking: Using Factual Manipulation Checks to Assess Attentiveness in Experiments. *American Journal of Political Science*, *63*(1), 234–249. <https://doi.org/10.1111/ajps.12396>
- Kligler-Vilenchik, N., Baden, C., & Yarchi, M. (2020). Interpretative Polarization across Platforms: How Political Disagreement Develops Over Time on Facebook, Twitter, and WhatsApp. *Social Media + Society*, *6*(3), 1–13. <https://doi.org/10.1177/2056305120944393>
- Lelkes, Y. (2016). Mass Polarization: Manifestations and Measurements. *Public Opinion Quarterly*, *80*(S1), 392–410. <https://doi.org/10.1093/poq/nfw005>
- Lewandowsky, M., Leonhardt, C., & Blätte, A. (2022). Germany: The Alternative for Germany in the COVID-19 Pandemic. In N. Ringe & L. Rennó (Eds.), *Populists and the Pandemic: How Populists Around the World Responded to COVID-19* (pp. 237–249). London: Routledge.
- Louwerse, T., Sieberer, U., Tuttnauer, O., & Andeweg, R. B. (2021). Opposition in times of crisis: COVID-19 in parliamentary debates. *West European Politics*, *44*(5-6), 1025–1051. <https://doi.org/10.1080/01402382.2021.1886519>
- Mainwaring, S. (2006). The Crisis of Representation in the Andes. *Journal of Democracy*, *17*(3), 13–27. <https://doi.org/10.1353/jod.2006.0048>

- Martherus, J. L., Martinez, A. G., Piff, P. K., & Theodoridis, A. G. (2021). Party Animals? Extreme Partisan Polarization and Dehumanization. *Political Behavior*, *43*(2), 517–540. <https://doi.org/10.1007/s11109-019-09559-4>
- Mason, L. (2015). “I Disrespectfully Agree”: The Differential Effects of Partisan Sorting on Social and Issue Polarization. *American Journal of Political Science*, *59*(1), 128–145. <https://doi.org/10.1111/ajps.12089>
- Mason, L. (2018). Losing Common Ground: Social Sorting and Polarization. *The Forum*, *16*(1), 47–66. <https://doi.org/10.1515/for-2018-0004>
- McGarty, C., Bliuc, A.-M., Thomas, E. F., & Bongiorno, R. (2009). Collective Action as the Material Expression of Opinion-Based Group Membership. *Journal of Social Issues*, *65*(4), 839–857. <https://doi.org/10.1111/j.1540-4560.2009.01627.x>
- Moore-Berg, S. L., Ankori-Karlinsky, L.-O., Hameiri, B., & Bruneau, E. (2020). Exaggerated meta-perceptions predict intergroup hostility between American political partisans. *Proceedings of the National Academy of Sciences*, *117*(26), 14864–14872. <https://doi.org/10.1073/pnas.2001263117>
- Munzert, S., & Bauer, P. C. (2013). Political Depolarization in German Public Opinion, 1980–2010. *Political Science Research and Methods*, *1*(1), 67–89. <https://doi.org/10.1017/psrm.2013.7>
- Musgrove, L., & McGarty, C. (2008). Opinion-Based Group Membership as a Predictor of Collective Emotional Responses and Support for Pro- and Anti-War Action. *Social Psychology*, *39*(1), 37–47. <https://doi.org/10.1027/1864-9335.39.1.37>
- Pennycook, G., McPhetres, J., Bago, B., & Rand, D. G. (2022). Beliefs About COVID-19 in Canada, the United Kingdom, and the United States: A Novel Test of Political Polarization and Motivated Reasoning. *Personality and Social Psychology Bulletin*, *48*(5), 750–765. <https://doi.org/10.1177/01461672211023652>
- Reiljan, A. (2020). “Fear and loathing across party lines” (also) in Europe: Affective

- polarisation in European party systems. *European Journal of Political Research*, 59(2), 376–396. <https://doi.org/10.1111/1475-6765.12351>
- Röllicke, L. (2023). Polarisation, identity and affect - conceptualising affective polarisation in multi-party systems. *Electoral Studies*, 85, 102655. <https://doi.org/10.1016/j.electstud.2023.102655>
- Schieferdecker, D. (2021). Beliefs, Attitudes, and Communicative Practices of Opponents and Supporters of COVID-19 Containment Policies: A Qualitative Case Study from Germany. *Javnost: The Public*, 28(2), 306–322. <https://doi.org/10.1080/13183222.2021.1969620>
- Schwörer, J., & Fernández-García, B. (2022). Populist radical right parties and discursive opportunities during Covid-19. Blame attribution in times of crisis. *Zeitschrift Für Vergleichende Politikwissenschaft*, 16(3), 545–570. <https://doi.org/10.1007/s12286-022-00540-w>
- Soderborg, S., & Muhtadi, B. (2020). When is Staying Home Partisan? Policy Conflict and Precaution-Taking during a Pandemic. *Preprint*, 1–46.
- Steenbergen, M. R., Bächtiger, A., Spörndli, M., & Steiner, J. (2003). Measuring Political Deliberation: A Discourse Quality Index. *Comparative European Politics*, 1(1), 21–48. <https://doi.org/10.1057/palgrave.cep.6110002>
- Steiner, N. D. (2022). Wählerwanderungen von und zu der AfD in der COVID-19-Pandemie. In B. Weßels & H. Schoen (Eds.), *Wahlen und Wähler: Analysen zur Bundestagswahl 2021 [Preprint]*. Springer VS. Retrieved from https://www.nilssteiner.com/wp-content/uploads/2022/12/Steiner_Wahlerwanderungen-von-und-zu-der-AfD-in-der-COVID-19-Pandemie_Blauer-Band-BTW-2021-1.pdf
- Stoetzer, L. F., Munzert, S., Lowe, W., Çalı, B., Gohdes, A. R., Helbling, M., . . . Traunmüller, R. (2023). Affective partisan polarization and moral dilemmas during the COVID-19 pandemic. *Political Science Research and Methods*, 11(2),

429–436. <https://doi.org/10.1017/psrm.2022.13>

Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science*

Information, 13(2), 65–93. <https://doi.org/10.1177/053901847401300204>

Wagner, M. (2021). Affective polarization in multiparty systems. *Electoral Studies*,

69. <https://doi.org/10.1016/j.electstud.2020.102199>

Wagner, M., & Eberl, J.-M. (2022). Divided by the Jab: On the Nature, Origins, and

Consequences of COVID-19 Vaccination Identities. *OSF Preprints*.

<https://doi.org/10.31219/osf.io/zcas8>

Yarchi, M., Baden, C., & Kligler-Vilenchik, N. (2021). Political Polarization on the

Digital Sphere: A Cross-platform, Over-time Analysis of Interactional, Positional,

and Affective Polarization on Social Media. *Political Communication*, 38(1-2),

98–139. <https://doi.org/10.1080/10584609.2020.1785067>