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Affective Partisan Polarization and Citizens' Attitudes and Behavior in Swiss Democracy*

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May 14, 2024

Abstract

There is a concern that citizens with different political positions and party affiliations increasingly dislike each other. We examine this affective polarization (AP), which is often associated with a weakening of democracy, in the context of Switzerland's multiparty landscape with proportional governmental representation. Evaluating the long-term development of AP in Switzerland with both historical and newly gathered data for 2023, we find hardly any considerable change in AP over the last three decades, except for a substantial jump between 1999 and 2003 and a generally lower level of party sympathy in 2023. Complementary, our analysis of split-ticket voting behavior in national parliamentary elections with continuous data back to 1983 does not support any trend in partisan polarization from a voters' revealed preference perspective. We further find that more affectively polarized individuals report, on average, lower satisfaction with democracy but show a higher willingness to participate in politics across a wide range of different forms of political engagement, even when controlling for individuals' general sympathy towards political parties.

Keywords: affective polarization, political participation, political discussion, latent candidacy, splitticket voting

JEL classifications: D72, D91

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1 Introduction

Collaboration in the private and the public realm becomes difficult if people dislike each other. This holds even more so if reservations arise between groups. One of the most prominent cleavages that is currently discussed from the perspective of liked in-group members and disliked out-group members refers to party affiliation (see, e.g., Harteveld, 2021b; Iyengar et al., 2012; Iyengar et al., 2019; Mason, 2016; McCoy et al., 2018; Reiljan, 2020; Robison and Moskowitz, 2019; Wagner, 2021). Within the scientific literature, this phenomenon is termed affective polarization (AP), often defined as "the extent to which partisans view each other as a disliked out-group" (Iyengar et al., 2012, p. 406). Various political malaises in Western democracies have been linked with AP, such as the spreading of spiteful political discourse, distrust in politics, parliamentary gridlock, political alienation, reduced participation, or lower support of the separation of powers (see, e.g., Arbatli and Rosenberg, 2021; Hartman et al., 2022; Kingzette et al., 2021). These claims are backed by more or less convincing evidence (for reviews of the current empirical literature, see, e.g., Broockman et al., 2023; Orhan, 2022).

Without doubt, ideological polarization is generally considered an important determinant of AP (see, e.g., Algara and Zur, 2023; McCarty, 2019). However, AP builds on a richer theoretical framework that goes beyond individual political preferences (as, e.g., in Downs, 1957) and considers motivational forces fundamentally modeled in Tajfel and Turner's (1979) Social Identity Theory (Iyengar et al., 2012). This gives rise to identity politics pursued by political parties (as, e.g., modeled resp. applied in Bonomi et al., 2021; Gennaioli and Tabellini, 2023; Noury and Roland, 2020). These considerations form the conceptual basis for the specific measures adopted to capture AP (Druckman and Levendusky, 2019; Wagner, 2021). They allow the empirical study of the association between important phenomena related to polarization in democratic politics.

Importantly, so far there is little evidence on how individual-level AP is related to people's engagement in the political process in terms of discussing politics and trying to convince others of their own political position but also in terms of their willingness to take over political offices and the related responsibility. These kinds of engagement are key elements of a functioning (direct) democracy over and above the participation in the election process. While a higher AP could motivate people to retreat to the private realm, it could also motivate them to engage more in the political in-group. At the aggregate level, research largely focuses on establishing evidence for trends in AP over time (see, e.g., Boxell et al., 2024; Garzia et al., 2023; Gidron et al., 2020). The corresponding indicators rely on the same reported affect measures and there are few proxy measures to capture in-group favoritism in party politics as revealed in behavior.

In this paper, we want to contribute to a better understanding of AP and study the link between AP and political attitudes as well as behavior in the context of the Swiss democratic system. Evidence from a context with a multiparty system is potentially transferable to the situation in many Western democracies and complements the existing literature focusing on the US with its two-party majoritarian system. Moreover, studying AP in Switzerland is of special interest for further reasons. First of all, the Swiss political system offers a wide range of institutional features that allow citizens to actively engage in the political process, i.e., by launching, supporting, and

lastly, deciding on popular initiatives and referenda, or by running for low (and also high) level political offices in a small-scale federal governmental system.

Second, the proportional representation system with open party lists in federal elections to the National Council (i.e., the lower house) enables us to analyze split-ticket voting behavior with fully representative public data as a new complementary measure of voters' partisan polarization based on revealed preferences rather than on stated preferences in surveys (that are still contested, Wagner (e.g., 2024)). For these measures, we can rely on continuously available historical data back until 1983.

Third, previous empirical research has often characterized Switzerland's multiparty system as the most politically polarized among European democracies. Regarding ideological or issuebased party positions, Switzerland's Swiss People's Party (SVP) has been identified as one of the most extreme (large) right-wing parties, and the Swiss Social Democrats (SP) as one of the most extreme (large) left-wing parties in Western Europe (see, e.g., Zollinger, 2024; Bochsler et al., 2015; resp. Jolly et al., 2022). This fits with the observations of an emerging cleavage between people supporting a far right and a new left (Bornschier et al., 2021; Kriesi, 2015; Zollinger and Traber, 2023; Zollinger, 2024). This seems further in line with a provocative observation in recent empirical work by by Boxell et al. (2024; and largely replicated by Garzia et al., 2023). Switzerland has been identified as one of the Western democracies where AP rose the most over the last decades. However, this finding is based on observations from six surveys up to 2011 adopting three different types of survey questions and is mainly driven by highly questionable data from 1975.¹ Whether the observed divergence in party positions in Switzerland has manifested itself in an increase in AP should, therefore, be examined closely.

Accordingly, we empirically reevaluate the evidence for the development of AP in Switzerland. We expand the pool of existing data with newly gathered survey data for 2023, conduct survey experiments to partially validate the comparability of different party affect questions, and exploit data on split-ticket voting. For the former, we collaborated on the survey 'How are you Switzerland?' conducted on behalf of the Swiss Broadcasting Corporation (SRG) in 2023 among more than 10,000 respondents. We complemented the survey with questions on participation in voting, political discussion, attempts to convince others about one's policy position, as well as detailed questions on latent political engagement, that is, people's willingness to run for any kind of political office.

Overall, the reevaluation of the evidence for the development of AP in Switzerland over time reveals a substantial jump in mass AP between 1999 and 2003. However, we find barely any change in AP over the last two decades. A lack of support for a clear polarization trend from the voters' perspective is also evident in our analysis of split-ticket voting behavior in national parliamentary elections. Based on this evidence, we cannot support the conclusion in Boxell et al. (2024) for the case of Switzerland.

In our survey experiments, we also randomized the question wording between 'parties' and

¹The influential data point from 1975 indicating a relatively low level of AP in Boxell et al. (2024) is calculated based on a dataset that only considers affect values towards four (often even less) parties next to non-partisan groups, cannot distinguish between low affect values and non-responses, and relies on a question type that significantly triggers less polarized party likes, as we show in Section 3.3.1. We provide a more detailed discussion of the data in question in Appendix B.

'party supporters' as addressees of individuals' sympathies. We find that asking about feelings towards 'party supporters' compared to asking about 'parties' triggers, on average, less low affect values, resulting in lower AP values. This indicates that citizens differentiate and tend to have (or at least express) less strong reservations towards other citizens than toward parties as such. This finding matters for the interpretation of AP analyses, as AP is often conceptualized as polarization within the electorate, whereas survey data for empirical research typically considers respondents' affect values towards parties as such (see, e.g., Wagner, 2024).

Regarding the link between AP and different forms of political participation, we draw on both pre-existing survey data and the newly gathered data from 2023. Taking into account standard socio-economic control variables, we find that individuals who are more affectively polarized are more likely to participate in political activities like voting, discussing and trying to convince others on political issues, attending political meetings, collecting signatures, signing popular initiatives or facultative referenda, donating money or joining demonstrations. For political engagement, such as taking a political office that requires a minimum of inter-party cooperation, the same pattern is observed, irrespective of the level of general sympathy across the considered parties. This indicates that, indeed, affect distances between parties matters, surprisingly independent of whether AP manifests mainly through out-party reservation or in-party favoritism. Regarding democratic attitudes, we find that people with higher AP scores tend to be less satisfied with democracy, but we find no evidence of a statistically significant relationship between AP and people's trust in elected governmental representatives.

The remainder of this paper is organized as follows. In Section 2, we describe the theoretical framework within which we study AP and political attitudes and behavior, and derive our hypotheses. Section 3 describes the data and the polarization measures. In Section 4 and Section 5, we introduce our empirical strategies and then present our results on AP in Switzerland over time and on its link to different forms of political attitudes and participation, respectively. Section 6 offers concluding remarks.

2 Theory and previous evidence

2.1 Ideological and affective polarization

The conceptual idea of AP is far from new, despite the sharp increase in academic interest since the publishing of Iyengar et al.' (2012) seminal paper. It goes back to Tajfel's (1970; 1981) resp. Tajfel and Turner's (1979) Social Identity Theory (Druckman and Levendusky, 2019, p. 115; Iyengar et al., 2012, p. 406; Huddy, 2001), but can also be linked with Lipset and Rokkan's (1967) Social Cleavages Theory (Harteveld, 2021b, p. 3), and associated concerns can already be found, for instance, in Dahl's famous book *Poliarchy* from 1971 (e.g., p. 105 ff.). In essence, Social Identity Theory models the idea that people aim to attach and identify themselves with social groups based on (potentially arbitrary) common characteristics to divide people into a favorable perceived in-group and an animus tainted out-group. Based on Social Identity Theory alone, affective partisan polarization could, in principle, be modeled within a world where parties and voters have no instrumental interests at all but arbitrarily identify themselves with political parties, which then triggers some sort of tribalistic human behavior of inter-group discrimination and in-group favoritism (for a more detailed review of the minimal conditions of such inter-group behavior, see, e.g., Diehl 1990).

In traditional political economics, political or ideological polarization (IP) is the result of a policy issue-oriented rational calculus of both voters and electoral candidates (regardless of whether these are modeled as parties or individual politicians). From this perspective, AP is considered an artifact or direct derivative of people's ideological or issue-related positioning, as modeled by Downs (1957).² No explicit conceptual claim is made on the potentially close link between such strategic positioning and people's affective feelings towards political parties. However, when considering the psychological patterns identified in Turner et al.'s (1987) Self-Categorization Theory (which developed further aspects of Social Identity Theory) and more generally in Festinger's (1957) Theory of Cognitive Dissonance it becomes plausible that the two proposed mechanisms actually go hand in hand. It is more likely for individuals to join a social group (i.e., a party) of people with similar instrumental political interests than some random group.

While some authors argue that the two types of polarization should be seen merely (or even purely) as interchangeable (see, e.g., Orr et al., 2023; Webster and Abramowitz, 2017; Algara and Zur, 2023; Rogowski and Sutherland, 2016), researchers closer to the psychological literature provide evidence for the phenomenon of AP to occur substantially independent of strategic behavior and IP (see, e.g., Bradley and Chauchard, 2022; Mason, 2015; Weiss, 2022; Orhan, 2022; Ward and Tavits, 2019). Accordingly, these scholars consider IP as a distinct dimension but as an important determinant of individual party affects (see, again, e.g., Algara and Zur, 2023; McCarty, 2019).

However, even with a high correlation between AP and IP, it is not clear to what extent we should think of the (potential) causal channel only running from IP to AP or the other way around. The formation of issue preferences and ideology can also be the result of party identification.

2.2 Affective polarization and its implications for democracy

Conflicting interests – in the sense of IP – between different actors in a society are neither avoidable in a world of scarce resources nor, in principle, something a democratic system cannot deal with. Quite the converse, it is the very fundamental objective of democracy to provide widely accepted basic rules of societal decision-making to deal with conflicts, especially in domains where collective action is required or private market solutions produce undesirable outcomes – regardless of whether this concerns distributional or allocative aspects.

At the same time, high levels of AP (connected to IP or not) arguably pose major challenges to democracy as cooperation and collaboration across the political spectrum become more difficult. On top of that, one might even fear an erosion of the acceptance of democratic decision-making processes in the face of extreme competition with strong affective feelings about the respective political opponents. Academics – but also others – have hypothesized much about the specific threats of rising AP to democratic societies. The widespread concerns can broadly be categorized

²Downs (1957) models voters' calculus in comparatively evaluating different political parties and politicians as congruence maximization problem of ideological resp. policy preferences, where voters prefer politicians and parties that are closest to themselves (Algara and Zur, 2023).

into two main types: Implications for the non-political sphere in the form of economic or social party-based discrimination spillovers (see, e.g., Iyengar et al., 2019) and implications for the functioning of political institutions themselves. For the latter, the interest lies in how different political actors might change their strategic and non-strategic behavior and how people's attitudes towards democracy and the acceptance of its outcomes might change in the presence of strong AP.

For the exact modeling and empirical testing of mechanisms, it is relevant to differentiate between AP as an individual-level attitude and AP as a societal context variable. In the first case, it is assumed that an individual's affective state comes with certain behaviors and attitudes, generally irrespective of the societal level of AP. In the second case, potential effects are implicitly modeled as an individual's reaction to a more (or less) emotionally charged or even perceived hostile political environment, in principle independent of an individual's own level of AP. In the following, we explicitly distinguish, wherever necessary, between AP as an essentially individual property and AP as a context variable. As, due to the structure of our data, we will not be able to test theories related to contextual AP properly, we will build our hypotheses on an individual AP framework only.³

2.2.1 Attitudes towards democracy and the government

Most generally, there is the concern of people experiencing direct discomfort from living in a relatively hostile environment of high AP and that such potential discomfort translates into a general reduction in support for democracy (and an increase in support for an alternative system or a strong resp. a populist leader who is in favor of the own in-party and promises an end to the ongoing political conflicts; see, e.g., McCoy and Somer, 2019). Beyond that contextual perspective, the effects of individual AP at a given level of mass AP are less straightforward, as one would have to differentiate between winners and losers from the democratic process. Here, Wagner (2021) argues for the dominance of a negative average effect of AP on satisfaction with democracy, as losing is typically considered to be more dissatisfying than winning is satisfying. In the context of Switzerland's governmental power-sharing and compromising tradition, we follow a slightly different argument, i.e., having to compromise on policy issues is perceived as more costly resp. creates more disutility when reservations about political opponents are high.

Consequently, and with respect to our available survey data, we formulate the following hypothesis.

H_1 : Higher levels of individual AP lead to lower satisfaction with democracy and the current political system.

If attitudes refer to the government, the prediction is less clear as it might depend on whether one's favored or disfavored party is in power. In addition, in the context of Switzerland's institutional setting, both executive and legislative governmental bodies almost exclusively consist of a more or less representative composition of several parties. Hence, there is no clear general prediction on the link between AP and trust in these bodies, as the government typically represents both the

³Note that for our descriptive analysis of mass AP over time, the distinction between the level of AP as a contextual variable and individuals' mean AP is not applicable as it eventually describes the same.

partisan in- and the out-group. Instead, we make a differential prediction depending on whether AP is driven by pronounced in-party favoritism or out-party hostility. Here, we argue that the decomposition of AP actually matters and that it is mainly out-party hostility that drives distrust towards the out-group.

For the sake of simplicity, we formulate our hypothesis directly using the terminology of our later applied empirical strategy, where we capture out-party vs. in-party-driven AP by an individual's (vote share-weighted) mean affect (= like) value across all parties. If mean affect is low then high AP comes with low out-party affect. If, instead, mean affect is high, high AP is related to high in-party affect.

 H_2 : Higher levels of individual AP at higher levels of mean affect reduce trust in governmental representatives less (or increase it more) compared to higher levels of individual AP at lower levels of mean affect.

2.2.2 Political participation

With regard to the consequences on political participation, we consider both arguments from traditional political economics as well as from Social Identity Theory. Predictions based on these arguments often align and can hardly be empirically disentangled. From an instrumental and expressive perspective, we expect people with more extreme positions to invest higher efforts when engaging in politics as their private benefits from the discrepancies between the status quo and their political goals are larger (see, e.g., Hamlin and Jennings, 2018).

Similarly, from a Social Identity Theory perspective, affectively polarized people are strongly motivated to actively engage in politics to support or cheer for their own group and, at the same time, harshly criticize or bash the opponent (see, i.e., Bankert et al., 2017; Ward and Tavits, 2019). This leads to the following hypotheses for participation behavior that can be targeted to the favored political cause.

H_{3a-h} : Higher levels of individual AP lead to more political participation in terms of...

...a) voting, b) discussing politics with peers, c) trying to convince peers on political issues, d) attending political meetings, e) signing a petition, f) active participation in a popular initiative, g) helping a popular referendum, or h) participating in a demonstration.

If political participation not only serves the motive of in-party support but actually requires cooperation with out-party members, like in the case of taking political office in a multi-party government, the prediction is less clear. The net effect of higher AP on participation might be negative when the perspective of required collaboration deters people. However, this aspect can be captured in a refined hypothesis. The deterring effect might primarily arise for individuals with high AP that is mainly driven by pronounced out-party hostility. Quite in contrast, for individuals with high AP mainly driven by high in-party favoritism the stimulating effect of AP might still prevail. In our hypothesis, we focus on this differential prediction. Again, we use individual mean affect values to formulate our hypothesis.

H₄: Higher levels of individual AP at higher levels of mean affect increase the willingness to run for

a political office more (or reduce it less) compared to higher levels of individual AP at lower levels of mean affect.

2.2.3 Block vs. split-ticket voting

Political engagement – at least within the limits of constitutional rules – is generally considered to strengthen democracy. For voting, this holds for the decision to turn out but even more so for the reflected choice at the ballot. One of the most crucial consequences in this regard is clearly the extent to which elected representatives (or their parties) are held accountable by voters in recurring elections for misuse of power and voters' trust. In a framework of identity-driven behavior of voters, we expect such disciplining mechanisms to be weakened with higher AP Elections shift away from evaluating the performance of politicians towards unconditional in-party cheering and out-party bashing (see, e.g., Orhan, 2022; Iyengar and Krupenkin, 2018). In democracies, where legislative authorities are elected through proportional representation with open lists and the possibility of split-ticket voting across parties, one manifestation of such party-cheering behavior is block voting or a reduction in split-ticket voting. Observed developments in split-ticket voting thus offer a complementary perspective on citizens' affective partisan polarization as revealed in behavior.

2.3 Previous evidence

First evidence on the link between AP and people's attitudes towards democracy is rather mixed. Wagner (2021), in line with our prediction (although not within a specific institutional setting⁴), finds that higher levels of AP are indeed associated with lower satisfaction with democracy. In contrast, Weiss (2022), Voelkel et al. (2023), and Broockman et al. (2023) all find no systematic link between AP and more specific democratic norms or anti-democratic sentiments. To our knowledge, there is so far no evidence on the correlation between AP and people's trust towards governmental authorities, particularly not for countries with such pronounced multi-party governments as Switzerland.

When it comes to political participation, Wagner (2021) finds that higher individual levels of AP seem to go with higher (self-reported) voter turn-out as well as other forms of political participation, such as trying to persuade others, making efforts to support political candidates or participating in demonstrations or protests. Similar results can be found for partisan sorting (which significantly correlates with AP) in the study of Mason (2015).⁵ Ward and Tavits (2019) find that AP substantially and positively correlates with people's perceived efficacy of voting ('voting makes a difference'), beliefs in the relevance of electoral outcomes ('who is in power makes a difference'), and again, voter turnout. Moreover, Rittinon et al. (2022) provide evidence for a lower willingness to discuss political issues with members of an opposing party if one's perception of mass polarization is higher. The latter is especially interesting as it is so far the only studied

⁴Wagner (2021) uses data from the modules of the Comparative Study of Electoral Systems (CSES) with data from 51 different countries.

⁵Mason (2015) further finds that both party identification and ideological alignment separately and even stronger jointly increase political activism (captured as a score from 1 to 5, indicating whether a respondent engages in activities, namely attending political meetings [1] and rallies [2], working for a party or candidate [3], displaying candidate-supporting button or sticker [4], or donating money to a party or candidate [5]).

form of political participation within this literature where a minimum of cross-party interaction is required. Additionally, none of the previous studies we cite considers people's average affective sentiments towards political parties. If people with a high level of AP hold, on average, favorable attitudes towards parties in general, previous findings might misattribute some of the positive correlations with political participation to polarization when in fact they are due to a positive affinity for politics. Moreover, there have not yet been any studies looking at the willingness to take a political office or relating qualitative voting behavior such as split-ticket voting to AP.

Considering the case of Switzerland specifically, evidence on AP is still limited to the longitudinal cross-country comparative studies of Boxell et al. (2024), Garzia et al. (2023), and Gidron et al. (2020) (and country level comparisons, e.g., included in Wagner, 2021; Bettarelli et al., 2023; Reiljan et al., 2024; Reiljan, 2020). While Boxell et al. (2024) and Garzia et al. (2023) report a positive time trend of AP between 1975 and 2011, Gidron et al. (2020) do not qualify the longitudinal pattern (in terms of a trend) for Switzerland.

Parallel to that, there exist evaluations of voters' issue polarization in Traber et al. (2023). No time trend in the polarization for party-grouped policy preferences is observed, except for the slight positive trend with regard to state control vs. private competition for the time period between 1995 and 2019. However, issue-based polarization does not necessarily reflect AP. Furthermore, in contrast to individual partisan affect, it is not clear how to properly interpret preference divergence in these matters. On the one hand, data is very limited to some specific topics. On the other hand, it is not clear how the relevance and reference points for the assessment of specific policy issues change over time in the face of dynamic real-world contexts. For instance, an individual's stable support for 'immigration control' might result in different survey responses depending on the current nature of immigration and the policies in place.

3 Data and polarization measures

3.1 Survey 'How are you Switzerland?' 2023

The first part of the data on the individual level comes from the first wave of the survey 'How are you Switzerland?' conducted by the polling company gfs.bern on behalf of the Swiss Broadcasting Corporation (SRG; SRG and gfs.bern, 2023). We proposed specific items on political behavior and partisan affect included in the questionnaire. The online survey took place in the time period from April 3 to May 8, 2023. The resulting sample contains anonymized information on the affective feelings towards the seven largest political parties in Switzerland from 11,118 adult Swiss citizens (with national voting rights), whereas 2,865 of the respective observations have been recruited from a representative (stratum quota-based) panel. The rest (8,253 observations) of the sample has been recruited by river sampling mainly via ads on online media channels from the SRG. Post-stratum survey weights account for demographic factors and party affiliation⁶ and further overweight respondents from the representative panel up to a representation share of 76%⁷ for

⁶Unweighted data is, in tendency, over-represented by academically highly educated respondents, and people who report supporting the SP, the Greens, and the GLP – all three either left-wing or environmental-focused parties.

⁷Applied to the raw full sample from the SRG and gfs.bern (2023) post-stratum survey, weights were constructed to boost observations from the representative panel to a representation share of 32%. The representation share of 76%

our final sample for the year 2023.

People's affective feelings towards specific political parties are assessed in survey experiments adopting three different question wordings and response scales adapted from different questionnaires of existing survey data. We further differentiate between two sets of addressees, i.e., the seven largest national 'parties' vs. the corresponding 'party supporters'. The survey item is consequently formulated in six different versions that are randomly assigned to respondents. The first variation we eventually use to estimate respectively control for question wording-driven effects across survey waves, while the second allows us to specifically explore people's differentiation between assessing parties compared to assessing other citizens (based on party affiliation). The six formulations are presented in Appendix A. The baseline question that was presented to roughly four fifths of the individuals in our sample is the following:

"Now we would like to know what you think of some of the political parties. Please rate the CENTRE, FDP, SP, SVP, GREENS, GLP, and EVP⁸ on a scale from 0 to 10. 0 means that you don't like this party at all. 10 means that you like this party very much.

If you have not yet heard of one of the parties or do not know much about a party, please simply select the corresponding entry boxes."

3.2 The Swiss Electoral Studies (Selects) 1995-2011

Historical data regarding partisan affect for Switzerland is quite rare relative to the US context. To the best of our knowledge, only the Swiss Electoral Studies (Selects; see Tresch et al., 2020b and Selb et al., 2020), a repeated cross-sectional survey on the electoral behavior of Swiss citizens, included for some years questions about respondents' affective attitudes towards political parties. Concretely, such data is available for the years 1995, 2003⁹, 2007, and 2011.¹⁰

The survey questions slightly differ across years. While questions on respondents' feelings towards political parties as of 1999 have been based on the standardized modules of the Comparative Study of Electoral Systems (CSES; CSES Secretariat, 2022) and answer scales (values in the range from 0 to 10) did not change in the time period between 1995 and 2011, there are still some slight differences in question wording in the different surveys (see Appendix A). We address this issue of potential question wording-driven effects by including an experiment in the latest survey (see Section 3.3.1 below).

Covering data from 1995 to 2011, the cumulative dataset contains 15,012 observations with valid affect values towards at least two political parties.¹¹ Still, for more than 95% of respondents

results from the circumstance that the vast majority of observations we have to exclude (due to missing party affect values) for our analyses belong to the river sample.

⁸Among Swiss people, commonly known party codes correspond to The Centre (CENTRE resp. MP), the Free Democratic Party (FDP), the Social Democratic Party (SP), the Swiss People's Party (SVP), the Green Party (GREENS resp. GPS), the Green Liberal Party (GLP), and the Evangelical People's Party (EVP).

⁹Due to some survey extensions, data from the wave in 2003 is not part of the cumulative file available on SWIS-SUbase, but can be downloaded as a single data frame (see Selb et al., 2020). For the sake of simplicity, we do not distinguish between the two datasets.

¹⁰The data for 1975 turned out to be of poor quality and can thus not be considered. In Appendix B, we explain the reasons in detail.

¹¹Since the main purpose of Selects is to capture voters' sentiments and opinions with regard to Swiss national elections, data from the cumulative file is restricted to adult Swiss citizens (who are allowed to vote) and to national

(14,361 observations), affect values towards five to eight parties are available. As documented in Appendix A, the number of parties included in the questions about respondents' sympathy towards parties was five in 2003, six in 2007, seven in 1999 and 2011, and eight in 1995.¹²

3.3 Measuring affective polarization in a multi-party context

Computing AP from individual affect values towards several parties involves the choice of an index formula (see the thorough discussions in Reiljan, 2020 and Wagner, 2021). As explained by Wagner (2021), such a multi-party index typically consists of the differences between available affect values towards the different parties, as well as weights that account for party sizes to discriminate between more relevant and less relevant parties. The underlying logic is that, for instance, strong animosity towards a small party is less relevant than towards a large party. Arguably, such weights can straightforwardly be approximated by party vote shares from national parliamentary elections.

Wagner (2021, p. 4 f.) proposes two different measures that both can be computed on the individual level (whereby mass indices can easily be derived through aggregation). For both AP indices for individual *i*, the 'mean distance'-measure (AP_i^{MD}) and the 'spread of scores'-measure (AP_i^{SOS}), *P* denotes the set of all available parties *p*. $like_{ip}$ represents the affect value assigned to the respective party, while $like_i^{\text{max}}$ stands for the affect value reported towards the most affectively favored party of a respondent, and v_p captures the corresponding party size by vote share.¹³

$$\begin{aligned} AP_i^{\text{MD}} &= \sqrt{\sum_{p=1}^{p} v_p \cdot \left(like_{ip} - like_i^{\max} \right)^2} \\ AP_i^{\text{SOS}} &= \sqrt{\sum_{p=1}^{p} v_p \cdot \left(like_{ip} - \overline{like_i} \right)^2} \quad \text{where} \quad \overline{like_i} = \sum_{p=1}^{p} v_p \cdot like_{ip} \end{aligned}$$

election years only. For similar reasons, survey design weights (included as of 1995; FORS, 2021) account not only for cantonal oversampling but for self-reported electoral party support and electoral participation (both post-stratum-weighted relative to official Swiss vote shares and participation rates in national parliamentary elections) in attempt to correct for sample self-selection of politically interested people (Tresch et al., 2020a, appx., p. 80 ff.). The data provider notes that part of the sizable mismatch between actual participation rates and in-sample participation rates based on self-reported information is most likely partly fueled by a social desirability bias. It is explicitly assumed by the data provider that such a bias is uniformly distributed across actual non-participants, and therefore, no further correction has to be implemented (Tresch et al., 2020a, appx., p. 81).

¹²The listed parties differ across survey waves, among other things, because the party landscape in Switzerland changed over time. Overall, affect values towards parties are available for the Social Democratic Party (SP; incl. in 1995-2011), the Free Democratic Party (FDP; incl. in 1995-2011), the Swiss People's Party (SVP; incl. in 1995-2011), the Christian Democratic People's Party (CVP; incl. in 1995-2011), the Greens (GPS; incl. in 1995-2011), the Green Liberal Party (GLP; incl. in 2011), the Conservative Democratic Party (BDP; incl. in 2011), the Liberal Party (LPS; incl. in 1995, 1999, 2007), the Evangelical People's Party (EVP; incl. in 2007), the Liberal Democratic Union (LdU; incl. in 1995, 1999), the Swiss Party of Labour (PdA; incl. in 1995, 1999), the Federal Democratic Union (FPS; incl. in 1995, 1999), and the Ticino League (LdT; incl. in 1995, 1999).

¹³Wagner's (2021) 'spread of scores'-formula for measuring affective polarization is, for example, applied in the work of Hernández et al. (2021) or Weiss (2022).

The AP_i^{MD} relies on the squared vote share-weighted sum of differences between the sympathy towards one focal party, that is, an individual's favorite or in-group party ($like_i^{\text{max}}$), and the sympathy affects values towards all the other parties ($like_{ip}$). All else built similarly, the AP_i^{SOS} , in contrast, does not rely on a particular party as a focal computational point but uses the vote share-weighted mean of an individual's affect values instead and can, thus, be interpreted as sort of a 'standard deviation' approach of individual party likes.

An alternative measure would be Reiljan's (2020) mass measure of AP.¹⁴ It first groups respondents by party affiliation ($p_{in} \in P$) and then separately computes average like scores towards the in-party ($\overline{like}_{p_{in}}$) and the different out-parties ($\overline{like}_{p_{out}}$) for each of these groups. The respective out-party vote share weighted mean of the differences between the average in-party and the outparty likes then result in party-specific AP measures (AP_p), which then are aggregated as in-party vote share weighted means to finally get an overall 'Affective Polarization Index' (API).¹⁵

$$API = \sum_{p_{in}=1}^{P} v_{p_{in}} \cdot \underbrace{\sum_{p_{out}=1 \neq p_{in}}^{P} \frac{v_{p_{out}}}{1 - v_{p_{in}}} \cdot \left(\overline{like_{p_{in}}} - \overline{like_{p_{out}}}\right)}_{AP_{p}}$$

The described measures differ in three conceptual and practical characteristics that are worth mentioning. First, in contrast to the AP_i^{MD} and the AP_i^{SOS} , the API treats differences between (aggregated) affect values towards different parties linearly (no quadratic term), such that a difference of 1 sympathy point is actually counted half the 'amount' of polarization than a difference of 2 points. Second, in its exact application, the API excludes all observations of individuals who do not indicate being especially close – or at least somehow relatively closer – to one particular political party. This feature is built in due to the ties of AP theory to Tajfel and Turner's (1979) Social Identity Theory, where group identification is considered a basic requirement. We argue that the desirability of this feature very much depends on the research question. More particularly, we do not consider this feature of the API suitable for descriptive evidence of affective polarization. The main interest here lies in the feelings of *all* individuals from society and is not restricted to the

¹⁴For the sake of intuitiveness and consistency, we renamed most of the variables from Reiljan (2020, p. 4 f.).

¹⁵The API is applied, for example, in the research of Gidron et al. (2020) and Kekkonen and Ylä-Anttila (2021).

ones who, by themselves, feel close to a particular party. Therefore, we argue that self-declared party identification is indeed a relevant potential moderator that might capture the intensity of one's in-group affiliation, but one should generally start with a non-exclusive measure with respect to party identification. Third, since the API is constructed as a direct mass AP measure that first computes party-wise average scores, we can not compute the API on the individual level in a coherent manner and can, thus, not apply the index to our analyses of individual AP and PP.

Due to the second and third aspect, we prioritize the individual-level AP measures over the mass API. Moreover, in the case of Switzerland's multi-party system, we might expect several parties to possibly form so-called 'affective blocs'. Kekkonen and Ylä-Anttila (2021) show this, for example, for the 'Greens' and the social democratic parties in Finland. As the AP_i^{SOS} , in contrast to the AP_i^{MD} , does not focus on a single party as narrow social in-group, the measure is robust against the number of parties that might build such blocs. This means that the AP_i^{SOS} is not sensitive to party splittings or the merging of parties that are perceived and evaluated as one single (homogeneous) bloc, while the AP_i^{MD} is. Hence, for the scope of this study, we further use and generally refer to the AP_i^{SOS} as a measure of polarization. To make results comparable to studies that use a 'mean distance'-like index approach to capture AP, we still perform robustness tests to our main results using the AP_i^{MD} measure. For both measures, AP_i^{SOS} and AP_i^{MD} , we use country-level party vote shares from elections to the National Council corresponding to the respective survey year from the BFS (2023).

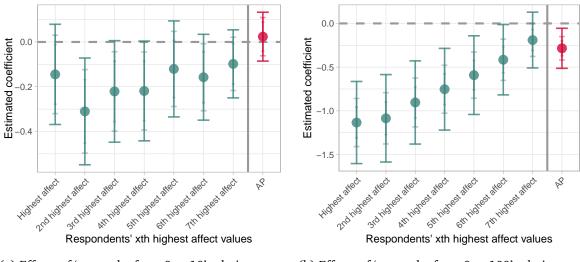
3.3.1 Comparability of data from different question types

When it comes to time trend analyses, rather than just studying AP in the cross-section, an aspect of high importance is data comparability across separate survey waves or different question wordings and response scales. In order to assess this quality for the existing data waves from 1995 to 2023, we conduct a simple survey experiment. Specifically, it consists of three questions that are randomly assigned to respondents. The three different types of question wordings differ in whether they use the term 'like' or 'sympathy' to express the affective ties to a party and whether these feelings of affect are expressed on a scale from 0 to 10 or 0 to 100. The full questions are reported in Appendix A.

To test for systematic differences in affect value response behavior of individuals depending on the three randomly assigned question types, we first ordered all party-specific affect values for each respondent according to their rank. For each party rank then, differences in affect values are calculated.¹⁶ Figure 1 summarizes the results of multivariate linear weighted least squares regressions with ranked affect values and the AP 'spread of scores'-measure as the dependent variables, question type as the main explanatory variable, and a battery of socio-demographics as control variables. Confronting respondents with the 'sympathy 10' (instead of the 'like 10' question) consistently results in weakly statistically significantly lower reported affect values. However, the effects do not follow a pattern across ordered affect values. Accordingly, there is no statistically significant difference in AP, as reported in panel (a). In contrast, and visualized in panel (b), treating respondents with the 'sympathy 100' (instead of the 'like 10' question)

¹⁶The resulting simple means across individuals for each party rank and question type can be found in Figure 14 in Appendix B). They indicate similar results as presented in Figure 1.

significantly decreases mean affect values, and more so for higher ranked parties. This results in a statistically significantly lower computed AP. In the following cross-section as well as longitudinal analyses, we consider question type as a control variable to take into account general differences in the level of affect values and in AP scores.¹⁷



(a) Effects of 'sympathy from 0 to 10' relative to 'like from 0 to 10'

(b) Effects of 'sympathy from 0 to 100' relative to 'like from 0 to 10'

Notes: Panel (a) shows the estimated effects of having answered the 'sympathy 10' instead of the 'like 10' party affect question on – from left to right – the individually most liked to the seventh liked party (dark mint) and on computed affective polarization (red). Panel (b) shows the same for having answered the 'sympathy 100' instead of the 'like 10' question. Visualized error bars mark the confidence intervals on the 90%- (tightest bars), the 95%- (intermediate bars), and the 99%-confidence levels (widest bars). Data: SRG and gfs.bern (2023).

Figure 1: Effects of different survey question wordings and response scales on sympathy-ranked affect values and affective polarization measure

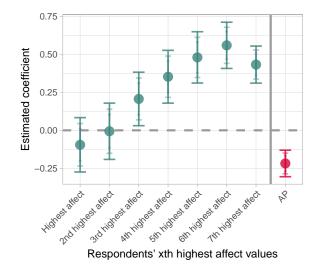
3.3.2 Addressees of the evaluation: parties vs. party supporters

Another methodical aspect refers to the addressees that are evaluated in terms of affect. Is it the parties or the party supporters? So far, this question has been studied only based on withindesigns, exploiting data where different survey items were presented to the same individuals one after the other. All of these studies find a strong correlation between party affect values and the sympathy evaluation of corresponding voters or supporters (i.e. Kingzette, 2021; Harteveld, 2021a; Gidron et al., 2022; Iyengar et al., 2012). In addition, Iyengar et al. (2012) report, on average, a statistically significant higher out-party affect for values expressed towards 'the Democrats' resp. 'the Republicans' than for values expressed towards 'the Democratic party' resp. 'the Republican party', but no differences with regard to the in-party. As Kingzette (2021) already critically mentions, focusing on potential survey item order effects, it is likely that results from such within-designs mirror people's strive for consistency, thus producing biased results. We close this gap by exploiting a between-design based on a survey experiment where people are randomly

¹⁷Looking at the question type-specific distributions of the highest to the seventh highest individual like values presented in Figure 15 in the Appendix B, it becomes evident that this decomposed effect for the sympathy question with a scale of 0-100 arises due to a higher tendency to respond with very low affect values. Obviously, the impact of this tendency is largest for the average affect values of the highest sympathy-ranked party and so on.

assigned to either the 'party' or the 'party supporter' framework.

Similar to the survey experiments presented in Section 3.3.1, we compare sympathy-rank ordered affect values and computed AP values of respondents from the 'party' vs. such from the 'party supporter' framework. Figure 2 shows the results. We find statistically significant higher affect values expressed towards out-party supporters compared to affect values reported in the 'party' framework. In contrast, we find no statistically significant differences with regard to the in-party. Specifically, affect values from the 'party supporter' framework are, on average, higher for the individually third- to the seventh highest affect by 0.21, 0.35, 0.48, 0.56, and 0.43 units (on a scale from 0-10), resulting in a 0.22 units (on a scale from 0-5, with a mean of 2.59) lower AP scores. In sum, our between-design clearly shows that people, on average, express less hostile sentiments towards the electorate of an opposing party than towards parties themselves.

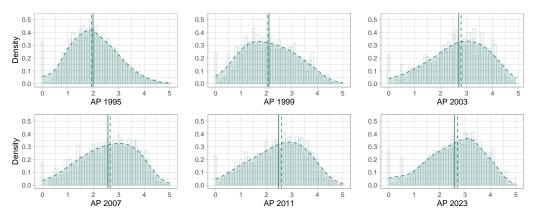


Notes: The figure shows the differences – from left to right – of the individually most liked to the seventh liked party (dark mint) and of computed affective polarization (red) of respondents who answered the party affect question in the 'party supporter' instead of the 'party' framework. Visualized error bars mark the confidence intervals on the 90%-(tightest bars), the 95%- (intermediate bars), and the 99%-confidence levels (widest bars). Data: SRG and gfs.bern (2023).

Figure 2: Differences in sympathy-ranked affect values and affective polarization towards parties vs. towards party supporters

3.3.3 Descriptive statistics

Party-specific affect values and AP can be assessed from different perspectives. Figure 3 shows the distributions of computed AP across the citizenry in Switzerland for each survey year. They are hump-shaped with a slight right skew and a mean of roughly 2.0 for the two waves before 2000 and a slight left skew and a mean closer to 2.5 for all the waves of the current century.



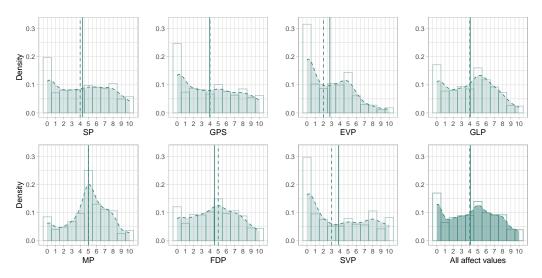
Notes: The six plots show the post-stratum-weighted smoothed distributions of AP spread of scores values grouped by survey year. The underlying post-stratum-weighted histograms with bin widths of 0.1 units of AP are presented by light vertical bars. Weighted mean values of AP spread of scores values are visualized by vertical solid lines and weighted median values by vertical dashed lines.

Data: SRG and gfs.bern (2023), Tresch et al. (2020b), and BFS (2023).

Figure 3: Weighted distributions of affective polarization spread of scores values towards political parties in Switzerland between 1995 and 2023

Figure 4 focuses on how citizens feel about each party in 2023. We observe that the more centrist parties, prototypically the MP, trigger more homogeneous and moderate affect values while the parties politically closer to the poles on the left (SP; GPS) and the right (SVP; FDP) trigger more uniformly distributed or even slightly U-shaped patterns. Post-stratum-weighted mean affect values reported towards the largest political parties in Switzerland in 2023 are 4.30 (SP), 3.96 (GPS), 2.78 (EVP), 4.07 (GLP), 5.00 (MP), 4.56 (FDP), 3.82 (SVP), and 4.10 across all parties. They are visualized as solid lines in the figure. Moreover, the affect value patterns towards the two left-wing parties, the SP and the GPS, are not only hard to tell apart in a visual inspection but also when grouping respondents based on their favorite parties. This indicates that from both an in- and an out-group perspective the two parties are emotionally perceived or evaluated as one homogeneous group. We provide a detailed plot grid of the distributions of respondents' sympathies towards parties grouped by respondents' favorite parties (Figure 16) as well as the whole party-sympathy correlation matrix (Table 5) in Appendix C.

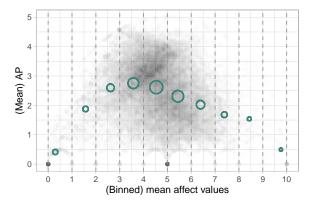
By construction, extreme sentiments, resulting in very high or low individual vote share weighted mean affect values, are connected to low AP. Mean affect values of 0 or 10 do not allow for any variance across parties at all and imply a score of 0 for AP. Accordingly, one might be concerned that variation in our AP measure, in fact, primarily captures a generally positive or negative sentiment towards political parties. However, as shown in Figure 5 this is not the case. The cloud of light gray dots indicates that low as well as high AP values are observed for intermediate levels of mean affect. Still, for this intermediate range, higher mean affect values, on average, are related to lower AP. Due to the construction of the measure, at both ends of the distributions of mean affect values, the corresponding AP is low.



Notes: The plots show the post-stratum-weighted distributions of respondents' affect values towards Switzerland's seven largest political parties in 2023. The underlying post-stratum-weighted histograms are presented by light vertical bars. Post-stratum-weighted mean affect values are visualized as vertical solid lines in the figure. Weighted median values are visualized as vertical dashed lines likewise. Post-stratum survey weights correct for a survey over-representation of left-wing voters (and other individual characteristics) towards a weighted self-reported electoral party preference share [compared to actual vote shares from elections to the National Council] of 15.4% [18.3%] (SP), 11.6% [9.8%] (GPS), 1.4% [2.0%] (EVP), 7.1% [7.6%] (GLP), 11.7% [14.1%] (MP), 15.6% [14.3%] (FDP), and 25.3% [27.9%] (SVP). Data: SRG and gfs.bern (2023) and BFS (2023).

Figure 4: Weighted distributions of affect values towards political parties in Switzerland in 2023

In order to consider general attitudes towards political parties, we will later include individual (vote share-weighted) mean affect values as a control variable in most parts of our analyses. To address the problem of missing common support for analyses of differential relationships of AP at different mean affect levels, we will exclude observations with mean affect values below 1 and above 9 (which applies to approx. 2% of our data) and validate the results with a categorical transformation of mean affect for the construction of interaction terms.



Notes: Small, light gray dots show the scattered distribution of combinations of individual AP and the corresponding vote share weighted mean affect value towards the seven largest political parties in Switzerland in 2023. Dark circles show the link between mean individual AP and the binned (cut-offs at integer values) mean affect values towards all political parties. Circle sizes visualize relative bin sizes.

Data: SRG and gfs.bern (2023) and BFS (2023).

Figure 5: Link between mean affect values and affective polarization for Switzerland in 2023

3.4 Measuring split-ticket voting behavior

In the Swiss electoral system, the lower chamber of the national parliament is elected by proportional elections with open lists that allow people to combine as many candidates from several parties as there are seats in the respective electoral district. This offers a unique way to create a holistic measure of partisan polarization based on observed behavior that complements measures of AP based on self-reported affect values. To compare such split-ticket (or 'panache') voting behavior over time and to put it in relation to the development of our AP measure over time, we use two different quantitative indicators. Our first measure, $STV_{cl_p}^{IPS}$, simply captures the share of votes on each party list (l_p) on the cantonal level $(c)^{18}$ that goes to the 'in-party'. The in-party of a list (l_p) is defined resp. assigned here as the party that gets the most votes on a specific list. In a canton with six seats and five parties, i.e., this share $(v_{cl_p}^{in})$ can range from 0.33 (2/6) to 1.0 (6/6). This first crude measure has the advantage that it can be interpreted quite intuitively. A higher in-party vote share can be interpreted as higher in-group preference.

$$STV_{cl_p}^{\text{IPS}} = v_{cl_p}^{\text{in}}$$
$$STV_{cl_p}^{\text{SOS}} = \sqrt{\sum_{p=1}^{p} v_{cp} \cdot (v_{cl_p p} - \overline{v}_{cl_p})^2} \quad \text{where} \quad \overline{v}_{cl_p} = \sum_{p=1}^{p} v_{cp} \cdot v_{cl_p p}$$

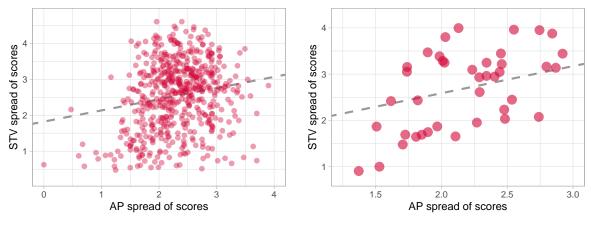
However, the first measure lacks the ability to differentiate between lists that contain — in our example with six seats — an equal split of votes between two parties only ('3, 3, 0, 0, 0'), and arguably a less polarized split that assigned three votes to one party and a uniform vote distribution to three further parties ('3, 1, 1, 1, 0'). To address this, we again make use of the spread of score structure for our second indicator, $STV_{cl_p}^{SOS}$. Conceptually, we construct a representative canton-party-specific voter. For this, we build the sum of the vote share-weighted (v_{cp}) squared difference between the (vote share-weighted) average party vote share from all lists of the same canton-specific in-party (\overline{v}_{cl_p}) to each of the vote shares from the same lists of all other parties (v_{cl_pp}) and standardize it by taking the square root.¹⁹ Applied to our example (with equally large parties; $v_c p = \frac{1}{6}$ for all p), this gives us a value of 1.47 for the distribution '3, 3, 0, 0, 0' and 0.98 for the distribution '3, 1, 1, 1, 0'.

Since both measures, the $STV_{cl_p}^{IPS}$ and the $STV_{cl_p}^{SOS}$ are built on the canton-party-level, which

¹⁸That is, the intermediate federal level of Swiss jurisdiction.

¹⁹Both measures of split-ticket voting by simple in-party vote shares $(STV_{cl_p}^{IPS})$ and by 'spread of scores' of party vote shares $(STV_{cl_p}^{SOS})$ are computed on the cantonal (*c*) party list (l_p) level. The in-party list vote share $v_{cl_p}^{in}$ that directly defines the $STV_{cl_p}^{IPS}$ represents the share of votes per list that goes to the respective list party itself. For the $STV_{cl_p}^{SOS}$, *P* denotes the set of all electable parties *p*, while v_{cl_pp} stands for the share of votes per list that goes to party *p*, and the weighting factor v_{cp} captures the respective cantonal party strength by its total cantonal vote share in national elections. Hence, $STV_{cl_p}^{IPS}$ simply measures the share of votes from a party list that is not 'split' away to any other party, whereas $STV_{cl_p}^{SOS}$ is built equivalently to the AP_i^{SOS} introduced above and can be interpreted as a standard deviation-like index on the degree to which voters of a particular party distribute their votes evenly among all parties.

is the most disaggregated level in our data from the BFS (2020), we use cantonal party sizes (by votes) as weights for aggregating our index to the country level.



party and year

(a) Affective polarization (AP_i^{SOS}) and split-ticket votes spread of scores $(STV_{cl_p}^{SOS})$ by canton, favorite (b) Affective polarization (AP_i^{SOS}) and split-ticket votes spread of scores $(STV_{cl_p}^{SOS})$ by canton, favorite and year

Notes: Plot (a) shows the joint variation of the two aggregated spread of scores indices for affective polarization (AP_i^{SOS}) ; x-axis) and split-ticket votes ($STV_{cl_p}^{SOS}$; y-axis) grouped by year, canton and favorite parties resp. party lists. The dashed gray line shows the (survey-weighted) correlation ($\rho = 0.31$; p = 0.000) between the two. Plot (b) shows the equivalent reduced to the year-party level (with $\rho = 0.59$; p = 0.000). Data: Tresch et al. (2020b), SRG and gfs.bern (2023), BFS (2023), and BFS (2020).

Figure 6: Correlation between affective polarization and block voting for Switzerland between 1995 and 2011

Figure 6 shows the correlation of computed $STV_{cl_p}^{SOS}$ with AP_i^{SOS} , once merged on the lowest possible level, the canton-party-year level (a), and once aggregated to the party-year level (b). We find highly statistically significant positive correlations of 0.31 and 0.59, respectively. This indicates that existing AP measures do capture relevant information associated with citizens' qualitative voting behavior, lending support to the use of the new measure for the analysis of developments in polarization over time.

3.5 Measuring democratic attitudes and political participation

To measure different forms of political participation and people's attitudes towards (Swiss) democracy on the individual level, we directly rely on people's responses to a battery of different questions included in different survey waves. An overview of basic descriptive statistics for these variables and AP is presented in Table 1 (and detailed survey items are included in Appendix A.

To capture people's trust in governmental authorities, we take advantage of two different questions from the older Selects surveys and the survey from 2023. The former asks for respondents' trust (on a categorical scale from 0-10) towards national parliamentarians and the federal council. In the latter case respondents report trust (on a categorical scale from 0-3) in politicians from the legislative branch and politicians from the executive branch.

	Mean	SD	Var. type	Ν	Years
AP (spread of scores)	2.38	1.07	Cont. 0-5	26,130	1995-2023
Satisfaction with (Swiss) democracy	1.76	0.69	Int./cat. 0-3	8,090	1999-2011
Trust in government 1	6.03	1.94	Int. 0-10	14,914	1995-2011
Trust in government 2	1.39	0.70	Int./cat. 0-3	10,953	2023
Voting frequency	7.92	2.76	Int. 0-10	25,490	1995-2011, 2023
Dicussing politics with peers	1.37	0.54	Int./cat. 0-2	10,185	2023
Convincing peers on political issues	1.47	0.89	Int./cat. 0-3	11,054	2023
Considered to run for political office	0.61	0.77	Int./cat. 0-2	10,901	2023
Ever held a political office	0.16	0.37	Bin. 0-1	11,079	2023
Attending political meetings	0.24	0.43	Bin. 0-1	11,929	1995, 2003-2011
Collecting signatures	0.17	0.38	Bin. 0-1	11,936	1995, 2003-2011
Signing an inititiative or a referendum	0.68	0.47	Bin. 0-1	11,824	1995, 2003-2011
Donating money to a political organization	0.21	0.41	Bin. 0-1	11,937	1995, 2003-2011
Participating in a demonstration	0.14	0.35	Bin. 0-1	11,940	1995, 2003-2011

Notes: Mean values and standard deviations are calculated using survey weights. For AP in 2023 only, the corresponding mean is 2.59 with a standard deviation of 1.07. Variable type 'cont.' stands for continous numeric, 'int.' for integer, 'cat.' for 'categorical', and 'bin.' for 'binary'.

Data: SRG and gfs.bern (2023) and Tresch et al. (2020b).

Table 1: Variable overview

4 Polarization over time

4.1 Empirical strategy

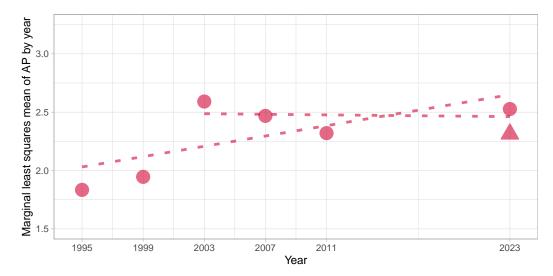
For the development of AP in Switzerland over time, we exploit data from six different national election years between 1995 and 2023. To provide a description of the overall trend, we do not control for the socio-demographic composition that might have changed over time. However, we use survey weights to correct for misrepresentation and control for question wording specific effects (the reference being the 'like 10' survey item). Year-specific mass AP is computed based on survey-weighted least-squares means of individual AP scores. To quantify a trend, we regress the mean values on the corresponding calendar years. In addition, we calculate the survey-weighted average individual highest, lowest, and party size weighted mean affect value. Finally, to compare the development of AP with Swiss citizens' qualitative voting behavior, we plot aggregated measures of split-ticket voting.

4.2 Results

4.2.1 Affective polarization

We finally address the question of whether AP in Switzerland has – like in the US and in line with widespread concerns on rising party cleavages – increased over the last decades. Figure 7 shows aggregate AP from individual AP spread of scores values for six years over the period 1995 to 2023. To make the means comparable across surveys, we estimate them based on a weighted linear regression controlling for differences in question wording (with 'like 10' being the reference). As self-selection into surveys seems to matter, we excluded observations from the

river sample in 2023 and compute a separate mean AP for this data (represented by the triangle). Mean AP from the river sample happens to be lower than the data point of the stratified sample.

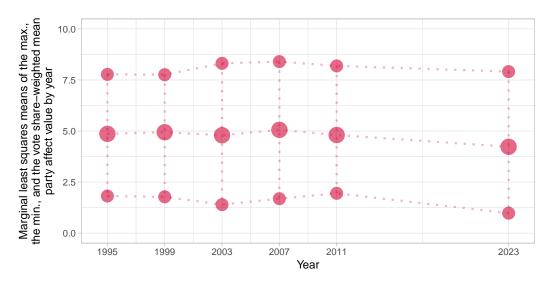


Notes: Time trends from simple linear regressions (OLS) based on the yearly least squares means are visualized by the dotted lines once for the whole period from 1995 to 2023 and once for the more recent period from 2003 to 2023, respectively. Least squares means by year are computed based on a weighted linear regression, controlling for question wording ('like 10', vs. 'sympathy 10'). Observations for 2023 are visualized separately depending on survey recruiting methods. The triangle shows the least squares mean of individuals recruited by river sampling, while points represent least squares means of respondents from pre-stratified samples. Data: Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023).

Figure 7: Development of aggregate affective polarization (spread of scores) in Switzerland between 1995 and 2023

Over the whole period from 1995 to 2023, we observe a clear increase in mass AP. However, the increase has not been steady. Instead, there was a marked jump in AP between 1993 and 2003. Since then, no clear trend, neither upward nor downward, is observed. We depict the crude time trends for the whole period and separately for the period since 2003 with dotted lines. In Appendix E, we present the same plot for aggregate AP based on the alternative index AP_i^{MD} , which focuses on polarization understood as 'one party against all others', instead of our baseline AP_i^{SOS} , which is constructed to pick up polarization as a divide between party blocks. The results are largely identical.

To get a richer picture of the development of AP in Switzerland, we also decompose AP into means of the individually highest, the lowest, and (vote share-weighted) mean party affect values. Figure 8 presents the development between 1995 and 2023. It shows higher like values towards the most favored party in 2003, 2007, and 2011 in comparison to 1995 and 1999 and no marked changes in weighted mean affect values and in likes towards the least liked party, except for 2003. The higher levels of AP in 2003, 2007, and 2011 relative to the observations for the 90s thus seem driven by the more favorable rating of the in-party. This does not hold for 2023, though. Higher aggregate AP nowadays compared to the years before 2000 is accompanied by considerably lower weighted mean affect values as well as lower affect values for the least liked party. This indicates a shift away from in-party like-driven to a more out-party dislike-driven mass polarization.



Notes: The connected points represent the yearly least squares means of the individually highest (upper points), lowest (lower points), and party-size-weighted average affect value (slightly bigger points). Least squares means by year are computed based on separate weighted linear regressions, including a control for question wording ('like 10', vs. 'sympathy 10'). Least squares means are based on observations from pre-stratified samples only. Data: Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023).

Figure 8: Development of respondents' highest, lowest, and vote share-weighted mean affect values towards political parties in Switzerland between 1995 and 2023

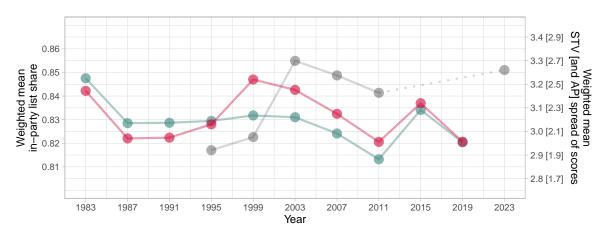
4.2.2 Split-ticket voting

Complementary to the analysis of stated affect-based party preferences from representative survey samples, we look into Swiss citizens' split-ticket voting behavior. It offers an alternative measure of partisan polarization from revealed preferences in ballot statistics of the elections to the National Council. Figure 9 shows the (cantonal party-vote share-weighted) yearly mean of both our introduced measures of split-ticket voting, the $STV_{cl_p}^{IPS}$ (in-party vote share per list) and the $STV_{cl_p}^{SOS}$ from 1983 to 2019.²⁰ For comparison, we add the information on aggregate AP.

We find, first, that the simple share of split-ticket votes has remained fairly stable over the last 40 years. The average $STV_{cl_p}^{IPS}$ only fluctuates between 84.8% in 1983 and 81.3% in 2011. Second, comparing the development of the $STV_{cl_p}^{IPS}$ within this period with the more nuanced measure $STV_{cl_p}^{SOS}$, we observe that the two indices move together quite narrowly, except for the change between 1995 and 1999. While from 1995 to 1999, the mean of $STV_{cl_p}^{IPS}$ barely changed the average $STV_{cl_p}^{SOS}$ strongly increased, indicating that a stable share of split ticket votes was allocated in a less diverse manner, i.e., towards fewer parties. This trend during the 90s stopped by 2003. Interestingly, this was the first election to the Swiss National Council for which a voting decision support tool called smartevote was available. At the cantonal level, this tool led to an increase in panache behavior. Concretely, Benesch et al. (2023) estimate an effect of between +2.5 and +3.4 percentage points for the staggered introduction on the share of split-ticket votes in Swiss cantonal parliamentary elections. If such an effect also played out as of 2003 at the national level, it might explain why the corresponding polarization measures based on split-ticket voting

²⁰Unfortunately, detailed ballot statistics of the elections to the National Council of 2023 had not been available when this analysis was made public.

did not further increase despite the jump in aggregate AP. For the years since 2003, no upward trend in the alternative polarization measure is observed, fitting the pattern for aggregate AP calculated from survey responses.



Notes: Polarization measures based on split-ticket voting. Dark mint data points represent the development of the (vote share weighted) mean in-party list shares $(STV_{cl_p}^{IDS}; left y-axis)$. Red data points equivalently represent the development of the (vote share weighted) mean spread of scores $(STV_{cl_p}^{SOS}; right y-axis)$, both in Swiss National Council elections. Gray data points show the development of aggregate AP (right y-axis in squared brackets). It refers to the (post-stratum weighted) mean of individuals' spread of scores AP (AP_i^{SOS}). Data: BFS (2020), Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023)

Figure 9: Split-ticket voting behavior by panache votes and affective polarization in Switzerland between 1983 and 2023

5 Affective polarization, democratic attitudes and political participation

5.1 Empirical strategy

To test the hypotheses formulated in Section 2.2 on the link between AP and different forms of political participation as well as attitudes towards the government and the democratic system in the context of Switzerland's institutional setting, we apply regression models with four different specifications. Our response variables are structured as numerical values derived from either proportionate scale (voting frequency) or from ordered categories with between two and eleven categories. Accordingly, the regression models can be presented in a generalized way with Y_i representing the respective response variable.

Model 1:
$$Y_{ict} = \alpha + \beta AP_{ict} + \zeta' \mathbf{X}_{ict} + \eta_c + \theta_t + \epsilon_{ict}$$

Model 2: $Y_{ict} = \alpha + \beta AP_{ict} + \gamma \overline{A}_{ict} + \zeta' \mathbf{X}_{ict} + \eta_c + \theta_t + \epsilon_{ict}$
Model 3: $Y_{ict} = \alpha + \beta AP_{ict} + \gamma \overline{A}_{ict} + \delta AP_{ict} \cdot \overline{A}_{ict} + \zeta' \mathbf{X}_{ict} + \eta_c + \theta_t + \epsilon_{ict}$
Model 4: $Y_{ict} = \alpha + \beta AP_{ict} + \gamma \overline{A}_{ict}^{\operatorname{cat.}_k} + \delta AP_{ict} \cdot \overline{A}_{ict}^{\operatorname{cat.}_k} + \zeta' \mathbf{X}_{ict} + \eta_c + \theta_t + \epsilon_{ict}$

Model 1 serves as the most basic regression model. It includes our measure of AP and individualspecific control variables \mathbf{X}_{ict} , i.e., a series of respondents' socio-economic characteristics (age group, sex, level of education, and income category by different household sizes), and, for data from 2023, some binary variables that control for differences in question versions arising from the inclusion of our survey experiments and for survey recruiting mode, i.e., pre-stratification or river sampling. Furthermore, we control for potential canton-specific effects η_c and year-specific effects θ_t in case of response variables available for more than one wave. In model 2, which serves as our main specification for our hypotheses $H_1 - H_{3h}$, we add respondents' individual vote share-weighted mean party affect value \overline{A}_{ict} to distinguish between AP and individuals' general sentiment towards political parties.

Model 3 is designed to test the hypothesized effect heterogeneity when AP is driven by ingroup favoritism rather than out-group hostility in H_4 . To do so, we add the interaction term of AP and vote share weighted mean affect values $AP_{ict} \cdot \overline{A}_{ict}$. The interaction term captures whether any spread in affect plays out differently at a generally high or low level of affect values and thus differentiates favoritism-driven AP (high \overline{A}_{ict}) from animosity-driven AP (low \overline{A}_{ict}).

For this specification, we restrict our sample to individuals with mean party affect values between 1 and 9, as extremely low and high mean affect by construction do not allow for reasonable variation in AP. In a complementary model 4 for the full sample, we specify the interaction term between mean affect and AP in a more flexible way, i.e., we replace the continuous variable \overline{A}_{ict} by its transformation to a categorical variable (bins with cut-offs at each integer value). In this model, the marginal effect of AP can differ at each level of mean affect. We run each model once as a simple weighted least squares regression (survey-weighted OLS; WLS) model for an intuitive interpretation. In addition, we take into account that most of our response variables involve ordered categorical values. For this, we estimate partially proportional odds logistic regressions (PPOLR). They allow for different coefficients for our main explanatory variables at different cut-offs between categories.

5.2 Results

5.2.1 Satisfaction with (Swiss) democracy

Table 2 shows the results for the statistical relationship between AP and people's reported satisfaction with democracy from 0 ('not satisfied at all') to 3 ('very satisfied'). In line with H_1 , the two models reveal a highly statistically significant negative correlation. People who report sentiments vis-à-vis political parties that are more polarized by one unit, on average, also report lower satisfaction with democracy by 0.04 on the four point scale, meaning that, for example, four percent of the people report to be 'rather satisfied' rather than 'very satisfied' with democracy. This holds when controlling for the mean level of affect in specification (2). For the latter, people who generally hold more favorable attitudes towards political parties also report higher satisfaction with democracy. For one unit of mean affect, satisfaction with democracy is higher by 0.06.

Specification (3) shows the results for model 2 when estimated based on a PPOLR. This method allows for differences in log odds ratio coefficients at each cut-off of the response variable. The results indicate that the negative correlation is driven by people who are at a lower level of satisfaction reporting even lower satisfaction when they are affectively more polarized.

However, for people at the threshold to 'very satisfied', a higher level of AP is related to higher satisfaction with democracy.²¹ Overall, higher individual AP seems to be related not only to generally lower levels of satisfaction but also more polarized (resp. extreme) attitudes towards democracy.²² A more intuitive representation of the results of the logistic regression in panel (3) is presented in the matrix table on the bottom left of Table 2. The matrix shows, for an empirically prototypical individual, all predicted probabilities of expressing a specific level of satisfaction with (Swiss) democracy (0-3) for a given integer value of AP (0-5): While the probability of reporting a satisfaction level of 2 monotonically decreases with higher levels of AP (i.e., from 77% at AP = 0 to 51% at AP = 5), both the probabilities for reporting a very high level of satisfaction (3) and reporting low levels of satisfaction (1-2) increase with higher levels of AP.

						Satisfaction with (Swiss) democracy	
				(1)		(2)	
				Model 1		Model 2	
AP			-0.0	49*** (0	.007)	-0.040*** (0.007)	
Mean	affec	t				0.058*** (0.006)	
Obser	vatio	ns		8,090		8,090	
Adjust	ed R	2		0.074		0.086	
F Stati	istic	6	.708***	(df = 11)	3; 7,976)	7.670^{***} (df = 114; 7,9	75)
		Sati	sf. with	(Swiss)	dem.		(3)
		0	1	2	3		Model 2
	0	0.01	0.14	0.77	0.09	AP at sat. w. dem. $0 \ge 1$	-0.356*** (0.052)
	1	0.02	0.16	0.73	0.10	AP at sat. w. dem. $\leq 1 \mid \geq 2$	-0.211*** (0.024)
AP	2	0.02	0.19	0.68	0.11	AP at sat. w. dem. $\leq 2 3$	0.143*** (0.036)
AP	3	0.03	0.22	0.63	0.13	Mean affect at sat. w. dem. $0 \ge 1$	0.247*** (0.041)
	4	0.05	0.24	0.57	0.14	Mean affect at sat. w. dem. $\leq 1 \mid \geq 2$	0.206*** (0.019)
	5	0.06	0.27	0.51	0.16	Mean affect at sat. w. dem. $\leq 2 3$	0.163*** (0.030)
						Observations	8,090
						Log-likelihood	-7,956.579
						Number of Fisher scoring iterations	6

Notes: (1) and (2) weighted least squares regressions. (3) partially proportional odds logistic regression with coefficients for log odds ratios at each cut-off of the response variable. Further control variables included in the three models are year, canton, sex, age group, level of education, and income × household size. The matrix shows the predicted probabilities from the estimated PPOLR for integer AP values from 0 to 5 for category values of reported satisfaction with (Swiss) democracy for a reference individual with year = 2011, canton = Zurich, sex = male, age group = 45-54 years, level of education = vocational, income = 6,001-7,000 CHF, household size = 2, and mean affect = 4.6. *p<0.1; **p<0.05; ***p<0.01.

Data: Tresch et al. (2020b) and BFS (2023).

Table 2: Affective polarization and satisfaction with (Swiss) democracy

²¹A more detailed model summary of the underlying PPOLR estimations is included in Appendix D.

²²It is, however, open whether the observed non-monotonous relationship between AP and people's satisfaction with democracy is real or is an artifact of a general tendency of some individuals to respond with more extreme values when asked about their sentiments.

5.2.2 Trust in governmental authorities

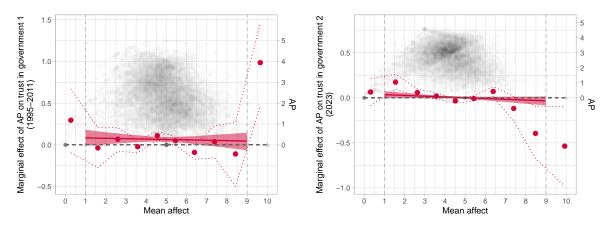
Table 3 and Figure 10 summarize the estimation results for sentiments towards political parties and people's trust in elected politicians of both the executive and legislative branches of the government. In both samples, respondents' average affect level across all parties is positively related to reported trust in the government.

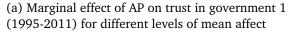
	Trust in government 1 (1995-2011)	Trust in government 2 (2023)
	(1)	(2)
	Model 3	Model 3
AP	0.091 (0.061)	0.043* (0.024)
Mean affect	0.494*** (0.027)	0.186*** (0.013)
$AP \times mean affect$	-0.005 (0.012)	-0.008 (0.005)
Observations	14,669	10,686
Adjusted R ²	0.134	0.180
F Statistic	20.004*** (df = 119; 14,549)	21.161^{***} (df = 115; 10,570)

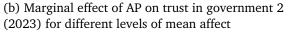
Notes: Weighted least squares regressions. Further included control variables are year (1995-2011), canton, sex, age group, level of education, and income × household size, as well as affect question type and survey recruiting method (2023). *p<0.1; **p<0.05; ***p<0.01.

Data: Tresch et al. (2020b), SRG and gfs.bern (2023), and BFS (2023).

Table 3: Affective polarization and trust in government







Notes: Plot (a) shows the estimated differential link between AP and people's reported trust towards the governmental authorities across the different levels of vote share-weighted mean affect values towards political parties from specification (1) in Table 3. Plot (b) shows the equivalent results from specification (2) in Table 3. For both plots, the red solid line represents the (linear) estimation of the marginal effects of AP (left y-axis) at different values of mean affect as from model 3 specification while the red dots represents the marginal effects from the more flexible model 4 specification. Visualized confidence intervals correspond to the 95% level. Light gray dots show the full distribution of AP (right y-axis) and mean affect values of all observations of the underlying samples. Data: Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023).

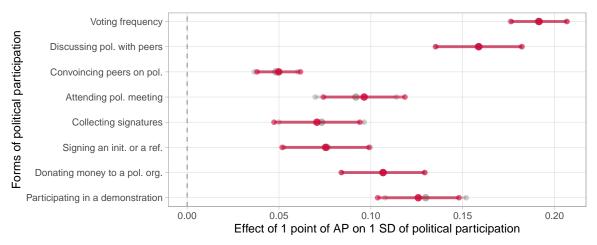
Figure 10: Differential link between affective polarization and trust in government

However, regarding the marginal effect of AP on trust, there is no evidence in support of H_2 . The two plots visualize the marginal effects at different levels of mean affect based on model 3 and the more flexible model 4. First, the positive marginal effect for intermediate levels of mean affect in the earlier period is quantitatively small. Second, there is no indication that the marginal effect is larger with higher levels of mean affect. And third, there is no statistically significant marginal effect of AP in the sample for 2023 within the range of mean affect with clear support.

5.2.3 Non-cross-party cooperative forms of political participation

Figure 11 summarizes the findings for the relationships between AP and what we call non-crossparty cooperative forms of political participation.²³ The findings coherently indicate higher participation with higher AP. They are consistent across all the applied response variables with H_{3a-h} and quite inline with the first existing evidence from the literature mentioned in Section 2.3.

The summary figure includes the estimated coefficients of AP from model 1 as well as 2 specifications estimated by WLS regressions. To make the coefficients for AP comparable across outcomes, they are expressed in terms of standard deviations (SD) of the respective response variable for a one-point difference in AP. The full estimation results (reported in unit-to-unit coefficients), as well as the corresponding results from the PPOLR, can be found in Appendix D.



Notes: Weighted least squares regressions. Point estimates with the corresponding 99% confidence interval represent coefficients standardized to coefficients of one unit of AP on one standard deviation of the respective response variable. Results from model 2 specification are visualized in red, and coefficients from model 1 specification are visualized in light gray underneath.

Data: Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023)

Figure 11: Affective polarization and non-cross-party cooperative forms of political participation

In the case of voting frequency, the linearly estimated highly statistically significant coefficient of 0.19 (model 2) indicates that people with a higher AP of one unit on average report 0.19 standard deviations (i.e., 0.49 out of 10 national ballots) higher voting frequency. For discussing politics with peers, higher AP by one unit is related to a higher level of discussion frequency of

²³For these kinds of political participation, it is not essentially necessary to interact with partisan out-group members. In contrast, we speak of cooperative forms of political participation when engagement requires a minimum of interparty cooperation in the sense that people must at least interact with each other in some way or the other.

0.16 standard deviations. The corresponding coefficient is 0.05 for convincing peers on political issues, 0.10 for attending political meetings, 0.07 for collecting signatures, 0.08 for signing an initiative or a referendum, 0.11 for donating money, and 0.13 for participating in a demonstration. All coefficients are highly statistically significant on the 1% level.

5.2.4 Willingness to run for or take a political office

The results in Table 4 refer to a form of political engagement that arguably requires more interparty cooperation, namely the willingness to run and potentially take a political office. Accordingly, we estimate the specification of model 3, taking into account the potential interaction between AP and mean affect. This allows us to test the hypothesized differential effect of AP on people who generally hold favorable or unfavorable attitudes towards political parties. Figure 12 depicts the marginal effects implied by the two estimations. For the intermediate and lower range of mean affect values for which there is common support to test our hypothesis (again, indicated by the visualized data cloud), higher AP is related to a higher probability that a respondent ever considered running for a political office as well as to a higher probability that he or she ever held a political office. This relationship is similar to the ones observed for the other forms of political participation studied before. However, there is no evidence that higher AP has a more positive effect when individuals hold generally more favorable attitudes towards political parties. The marginal effects of AP according to model 3 (red line) and model 4 (red dots) are instead rather constant for different levels of mean affect.

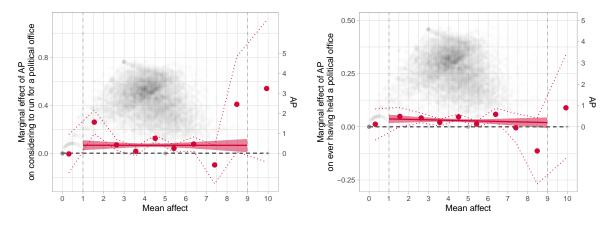
Transformed into standardized numbers, the marginal effects of AP from (1) and (2) at a mean affect level of 4.5 on a standard deviation of the respective response variables are 0.088 and 0.080. In absolute terms, this implies an increase in the willingness to run of 0.067 (on the scale from 0, never considered, to 2, considered it concretely; with a weighted mean of 0.609) and relates to 2.9 percentage point higher probability of having ever held a political mandate (with a weighted mean 16%).

	Considered to run for a political office	Ever held a political office	
	(1)	(2)	
	Model 3	Model 3	
AP	0.068** (0.028)	0.040*** (0.013)	
Mean affect	0.022 (0.015)	0.015** (0.007)	
$AP \times mean affect$	0.000 (0.006)	-0.002 (0.003)	
Observations	10,639	10,808	
Adjusted R ²	0.111	0.135	
F Statistic	12.672^{***} (df = 114; 10524)	15.816^{***} (df = 114; 10693)	

Notes: Weighted least squares regressions. Further included control variables are canton, sex, age group, level of education, and income \times household size, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01.

Data: Tresch et al. (2020b) and BFS (2023).

Table 4: Affective polarization and willingness to run for a political office



(a) Marginal effect of AP on considering to run for office for different levels of mean affect

(b) Marginal effect of AP on ever having held a political office for different levels of mean affect

Data: Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023).

Figure 12: Differential link of affective polarization and people's willingness to run for a political office

6 Conclusion

Political fault lines change in response to new challenges and uncertainties in society. Ideally, there is no clash of related policy positions, but the democratic process successfully works as a conflict resolution mechanism to deal with them. Recently, serious concerns have come up in many Western democracies that partisan strive has taken on a quality that is toxic and endangers democracy. The focus is on identity-driven polarization that shapes how people feel about fellow citizens who have partisan preferences that are closer or further away from their own. In short, the concern is about an increase in AP, i.e., higher sympathy towards one's in-party and lower sympathy towards one's out-party. However, also this form of polarization might well be a healthy stimulus for political engagement.

In this paper, we investigate voters' polarization over time on the basis of stated party sympathies and, parallel to that, by exploiting public data on split-ticket voting. Partisan strive has a long tradition in Switzerland and was particularly pronounced during the Kulturkampf in the 1870s that continued to have an impact well into the second half of the 20th century (Stadler, 1996). Switzerland also experienced the formation of strong parties at the ideological poles by the end of the 20th century (for a review, see Zollinger and Traber 2023). Further, a more pronounced self-positioning of voters at the extremes on a general left-right scale is observed since then (Tresch et al., 2020a).

Against this background, our results indicate an increase in AP in Switzerland between 1995/99 and 2003, but no clear trend thereafter. Importantly, the increase around the turn of the millen-

Notes: Plot (a) shows the estimated differential link between AP and whether respondents ever considered running across the different levels of vote share-weighted mean affect values towards political parties. Plot (b) shows the equivalent results on the link between AP and people ever having actually held a political office. For both plots, the red solid line represents the (linear) estimation of the marginal effects (left y-axis) at different values of mean affect as from model 3 specification, while the red dots represent the marginal effects from the more flexible model 4 specification. Visualized confidence intervals correspond to the 95% level. Light gray dots show the full distribution of AP (right y-axis) and mean affect values of all observations of the underlying samples.

nium seems to be driven by citizens' generally more favorable evaluation of their most preferred party. In contrast, the lack of a trend thereafter masks a general deterioration in citizens' affective feelings towards political parties by 2023, i.e., recent aggregate AP seems to be more strongly driven by out-party animus than in-party favoritism. Our analysis of split-ticket voting behavior (i.e., the extent of combining candidates from different parties in open-list proportional elections) draws a similar picture: As of 1983 (up to 2019), differences in in-party list shares only vary within a range of 4 percentage points with no systematic trend over this whole period.

Our findings of no clear trend in AP and split-ticket voting behavior put two widespread claims into question. First, the much-discussed and feared polarization of the masses along party boundaries – at least for the last two decades – might be more of a (media) narrative potentially imported from patterns observed in the US context and less of a pronounced phenomenon in Switzerland. Second, party ideologies and issue positions that, according to many Swiss political scientists (see the review by Zollinger and Traber, 2023 mentioned above) have diverged in new directions (with a cleavage between universalists and particularists) within Switzerland's party landscape seem so far not to have translated into a larger variation in people's affective feelings towards political parties or into reduced split-ticket voting.

However, the role of AP should not be disregarded, as it is statistically linked with (arguably) important democratic attitudes and people's willingness to actively engage in politics. We take stock of such joint patterns. We find that AP is negatively related to reported satisfaction with the prevalent democratic system. At the same time, there seems to be no systematic statistical connection between AP and people's trust in Switzerland's multi-party-based governmental bodies. Regarding political participation, we find that irrespective of the form of participation, higher individual AP is related to a higher motivation to participate in the political process. This pattern even holds in the case of people's willingness to take a political office, i.e., a situation where minimal interparty-cooperation is required. And it holds with no differential effects regarding people's average affect level towards political parties. On the one hand, these findings - when causally interpreted - draw a picture of AP being a vital force for maintaining a contested political discourse. On the other hand, it is unclear whether democratic competition shaped by the affectively polarized leads to desirable incentives for campaigning parties and whether elected politicians will effectively be held accountable by citizens when sanctioning governmental mismanagement comes into conflict with party identification. Future research should, thus, try to study the impact of AP on the very mechanisms identified by political economists that are perceived as the most important determinants of desirable democratic outcomes.

Furthermore, the Swiss context offers many more aspects to learn about the determinants of AP and its consequences for the political process. The idea of Switzerland as a concordance democracy obviously does not exclude AP. So, how do the institutions that characterize democracy in Switzerland moderate the forces that lead to AP? What is the role of initiatives that unbundle polarizing issues from the representative democratic process in AP? Or how does a more decentralized dealing with policy issues affect the ideological appropriation of issues and finally fuel or lessen AP? Answers to these questions will help us assess important democratic conflict resolution mechanisms with regard to the new emotional dynamics in partisan strive.

References

- Algara, Carlos and Roi Zur (2023). "The Downsian roots of affective polarization". *Electoral Studies* 82, p. 102581.
- Arbatli, Ekim and Dina Rosenberg (2021). "United we stand, divided we rule: how political polarization erodes democracy". *Democratization* 28 (2), pp. 285–307.
- Bankert, Alexa, Leonie Huddy, and Martin Rosema (2017). "Measuring partisanship as a social identity in multi-party systems". *Political Behavior* 39 (1), pp. 103–132.
- Benesch, Christine, Rino Heim, Mark Schelker, and Lukas Schmid (2023). "Do voting advice applications change political behavior?" *Journal of Politics* 85 (2), pp. 684–700.
- Bettarelli, Luca, Andres Reiljan, and Emilie van Haute (2023). "A regional perspective to the study of affective polarization". *European Journal of Political Research* 62 (2), pp. 645–659.
- BFS (2020). Nationalratswahlen 1983-2023: Panaschierstatistik (Parteien), nach Kantonen. Swiss Federal Statistical Office (BFS). URL: https://www.bfs.admin.ch/bfs/de/home/ statistiken/kataloge-datenbanken/tabellen.html?dyn_prodima=900226&dyn_ publishingyearend=2023&dyn_title=Panaschierstatistik%20(Parteien)%2C%20nach% 20Kantonen (visited on 01/03/2024).
- BFS (2023). Nationalratswahlen: Stärke der Parteien (1919-2023). Swiss Federal Statistical Office (BFS). URL: https://www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/tabellen.assetdetail.28765022.html (visited on 12/14/2023).
- Bochsler, Daniel, Regula Hänggli, and Silja Häusermann (2015). "Consensus lost? Disenchanted democracy in Switzerland". *Swiss Political Science Review* 21 (4), pp. 475–490.
- Bonomi, Giampaolo, Nicola Gennaioli, and Guido Tabellini (2021). "Identity, beliefs, and political conflict". *Quarterly Journal of Economics* 136 (4), pp. 2371–2411.
- Bornschier, Simon, Silja Häusermann, Delia Zollinger, and Céline Colombo (2021). "How "Us" and "Them" Relates to Voting Behavior—Social Structure, Social Identities, and Electoral Choice". *Comparative Political Studies* 54 (12), pp. 2087–2122.
- Boxell, Levi, Matthew Gentzkow, and Jesse M. Shapiro (2024). "Cross-Country Trends in Affective Polarization". *Review of Economics and Statistics* 106 (2), pp. 1–9.
- Bradley, Max and Simon Chauchard (2022). "The Ethnic Origins of Affective Polarization: Statistical Evidence from Cross-National Data". *Frontiers in Political Science* 4.
- Broockman, David E., Joshua L. Kalla, and Sean J. Westwood (2023). "Does Affective Polarization Undermine Democratic Norms or Accountability? Maybe Not". *American Journal of Political Science* 67 (3), pp. 808–828.

- CSES Secretariat (2022). Election Studies Table of election studies appearing in CSES datasets, by country/province. Secretariat of the Comparative Study of Electoral Systems et al. URL: https: //cses.org/data-download/download-data-documentation/election-studies/ (visited on 04/25/2023).
- Dahl, Robert A. (1971). Polyarchy: Participation and Opposition. New Haven: Yale University Press.
- Diehl, Michael (1990). "The minimal group paradigm: Theoretical explanations and empirical findings". *European Review of Social Psychology* 1 (1), pp. 263–292.
- Downs, Anthony (1957). An Economic Theory of Democracy. New York: Harper & Row.
- Druckman, James N. and Matthew S. Levendusky (2019). "What Do We Measure When We Measure Affective Polarization?" *Public Opinion Quarterly* 83 (1), pp. 114–122.
- European Commission (2022). *Standard Eurobarometer 97 Sommer 2022*. European Union. URL: https://europa.eu/eurobarometer/surveys/detail/2693 (visited on 02/07/2023).
- Festinger, Leon (1957). A Theory of Cognitive Dissonance. Stanford: Stanford University Press.
- FORS (2021). Documentation of the variables in the cumulative dataset, electoral surveys 1971 to 2019. Distributed by FORS, Lausanne. URL: https://www.swissubase.ch/en/catalogue/ studies/8862/18944/datasets/495/2202/files/document/19853/10908/physicalFile (visited on 04/25/2023).
- Garzia, Diego, Frederico Ferreira da Silva, and Simon Maye (2023). "Affective Polarization in Comparative and Longitudinal Perspective". *Public Opinion Quarterly* 87 (1), pp. 219–231.
- Gennaioli, Nicola and Guido Tabellini (2023). "Identity Politics". *CESifo Working Paper* (No. 10338).
- Gidron, Noam, James Adams, and Will Horne (2020). *American Affective Polarization in Comparative Perspective*. Cambridge, MA: Cambridge University Press.
- Gidron, Noam, Lior Sheffer, and Guy Mor (2022). "Validating the feeling thermometer as a measure of partisan affect in multi-party systems". *Electoral Studies* 80, p. 102542.
- Hamlin, Alan and Colin Jennings (2018). "Expressive voting". *The Oxford Handbook of Public Choice*. Ed. by Roger D. Congleton, Bernard Grofman, and Stefan Voigt. Vol. 1. Oxford: Oxford University Press, pp. 333–350.
- Harteveld, Eelco (2021a). "Fragmented foes: Affective polarization in the multiparty context of the Netherlands". *Electoral Studies* 71, p. 102332.
- Harteveld, Eelco (2021b). "Ticking all the boxes? A comparative study of social sorting and affective polarization". *Electoral Studies* 72, p. 102337.
- Hartman, Rachel, Will Blakey, Jake Womick, Chris Bail, Eli J. Finkel, Hahrie Han, John Sarrouf, Juliana Schroeder, Paschal Sheeran, Jay J. Van Bavel, Robb Willer, and Kurt Gray (2022).
 "Interventions to reduce partisan animosity". *Nature Human Behaviour* 6 (9), pp. 1194–1205.

- Hernández, Enrique, Eva Anduiza, and Guillem Rico (2021). "Affective polarization and the salience of elections". *Electoral Studies* 69, p. 102203.
- Huddy, Leonie (2001). "From Social to Political Identity: A Critical Examination of Social Identity Theory". *Political Psychology* 22 (1), pp. 127–156.
- Iyengar, Shanto and Masha Krupenkin (2018). "The Strengthening of Partisan Affect". *Political Psychology* 39 (S1), pp. 201–218.
- Iyengar, Shanto, Yphtach Lelkes, Matthew Levendusky, Neil Malhotra, and Sean J. Westwood (2019). "The Origins and Consequences of Affective Polarization in the United States". *Annual Review of Political Science* 22, pp. 129–146.
- Iyengar, Shanto, Gaurav Sood, and Yphtach Lelkes (2012). "Affect, Not Ideology: A Social Identity Perspective on Polarization". *Public Opinion Quarterly* 76 (3), pp. 405–431.
- Jolly, Seth, Ryan Bakker, Liesbet Hooghe, Gary Marks, Jonathan Polk, Jan Rovny, Marco Steenbergen, and Milada A. Vachudova (2022). "Chapel Hill Expert Survey trend file, 1999–2019". *Electoral Studies* 75, p. 102420.
- Kekkonen, Arto and Tuomas Ylä-Anttila (2021). "Affective blocs: Understanding affective polarization in multiparty systems". *Electoral Studies* 72, p. 102367.
- Kerr, Henry, David Handley, Charles Roig, and Dusan Sidjanski (1977). Attitudes politiques 1975. FORS - Swiss Foundation for Research in Social Sciences, University of Geneva, Department of Political Science, and Service suisse d'information et d'archivage de données pour les sciences sociales - SIDOS. URL: https://www.swissubase.ch/en/catalogue/studies/20/10557/ datasets/2/20/files/document/95/19/physicalFile (visited on 04/21/2023).
- Kingzette, Jon (2021). "Who do you loathe? Feelings toward politicians vs. ordinary people in the opposing party". *Journal of Experimental Political Science* 8 (1), pp. 75–84.
- Kingzette, Jon, James N. Druckman, Samara Klar, Yanna Krupnikov, Matthew Levendusky, and John Barry Ryan (2021). "How Affective Polarization Undermines Support for Democratic Norms". *Public Opinion Quarterly* 85 (2), pp. 663–677.
- Kriesi, Hanspeter (2015). "Conclusion: The political consequences of the polarization of Swiss politics". *Swiss Political Science Review* 21 (4), pp. 724–739.
- Kriesi, Hanspeter, Pascal Sciarini, Romain Lachat, Sibylle Hardmeier, Ulrich Klöti, Peter Selb, Adrian Vatter, Wolf Linder, and Georg Lutz (2019a). Swiss Electoral Studies (Selects) 1999 – Study Documentation. Université de Genève, Département de science politique, Universität Bern, Institut für Politikwissenschaft - IPW, and Universität Zürich, Institut für Politikwissenschaft - IPZ. URL: https://www.swissubase.ch/en/catalogue/studies/6646/ 18532/datasets/304/2479/files/document/30710/12423/physicalFile (visited on 03/15/2023).

- Kriesi, Hanspeter, Boris Wernli, Peter Farago, Wolf Linder, Ulrich Klöti, Daniel Schloeth, Marina Delgrande, and Ruth Nabholz (2019b). Swiss Electoral Studies (Selects) 1995 – Study Documentation. Université de Genève, Département de science politique, Universität Bern, Institut für Politikwissenschaft - IPW, and Universität Zürich, Institut für Politikwissenschaft - IPZ. URL: https://www.swissubase.ch/en/catalogue/studies/1815/18974/datasets/64/ 2478/files/document/30793/12576/physicalFile (visited on 03/15/2023).
- Leeuw, Edith de and Nejc Berzelak (2016). "Survey Mode or Survey Modes?" *The SAGE Handbook of Survey Methodology*. Ed. by Christof Wolf, Dominique Joye, Tom W. Smith, and Yang-chih Fu. Sage Publications, London. Chap. 11, pp. 142–156.
- Lipset, Seymour M. and Stein Rokkan (1967). *Party Systems and Voter Alignments: Cross-National Perspectives*. Vol. 7. New York: Free Press.
- Lutz, Georg and Nicolas Pekari (2019). Swiss Electoral Studies (Selects) 2011: RCS Study Documentation. FORS, Schweizer Kompetenzzentrum Sozialwissenschaften. URL: https://www. swissubase.ch/en/catalogue/studies/10890/18414/datasets/596/2471/files/ document/30672/12352/physicalFile (visited on 03/15/2023).
- Mason, Lilliana (2015). ""I Disrespectfully Agree": The Differential Effects of Partisan Sorting on Social and Issue Polarization". *American Journal of Political Science* 59 (1), pp. 128–145.
- Mason, Lilliana (2016). "A Cross-Cutting Calm: How Social Sorting Drives Affective Polarization". *Public Opinion Quarterly* 80 (S1), pp. 351–377.
- McCarty, Nolan (2019). *Polarization: What everyone needs to know*. Oxford: Oxford University Press.
- McCoy, Jennifer, Tahmina Rahman, and Murat Somer (2018). "Polarization and the Global Crisis of Democracy: Common Patterns, Dynamics, and Pernicious Consequences for Democratic Polities". *American Behavioral Scientist* 62 (1), pp. 16–42.
- McCoy, Jennifer and Murat Somer (2019). "Toward a Theory of Pernicious Polarization and How It Harms Democracies: Comparative Evidence and Possible Remedies". *The ANNALS of the American Academy of Political and Social Science* 681 (1), pp. 234–271.
- Noury, Abdul and Gerard Roland (2020). "Identity politics and populism in Europe". *Annual Review of Political Science* 23, pp. 421–439.
- Orhan, Yunus E. (2022). "The relationship between affective polarization and democratic backsliding: comparative evidence". *Democratization* 29 (4), pp. 714–735.
- Orr, Lilla V., Anthony Fowler, and Gregory A. Huber (2023). "Is affective polarization driven by identity, loyalty, or substance?" *American Journal of Political Science* 67 (4), pp. 948–962.
- Reiljan, Andres (2020). "Fear and loathing across party lines' (also) in Europe: Affective polarisation in European party systems". *European Journal of Political Research* 59 (2), pp. 376– 396.

- Reiljan, Andres, Diego Garzia, Frederico Ferreira da Silva, and Alexander H. Trechsel (2024)."Patterns of Affective Polarization toward Parties and Leaders across the Democratic World". *American Political Science Review* 118 (2), pp. 654–670.
- Rittinon, Chonnakan, Boontida Sa-ngimnet, Suparit Suwanik, Tanisa Tawichsri, and Thiti Tosborvorn (2022). "(I Think) I Don't Think Like You and I Don't Like You: Perception of Polarization and Out-Group Animosity". PIER Discussion Paper No. 194. Puey Ungphakorn Institute for Economic Research.
- Robison, Joshua and Rachel L. Moskowitz (2019). "The Group Basis of Partisan Affective Polarization". *Journal of Politics* 81 (3), pp. 1075–1079.
- Rogowski, Jon C and Joseph L Sutherland (2016). "How ideology fuels affective polarization". *Political Behavior* 38, pp. 485–508.
- Schwarz, Norbert (2007). "Cognitive Aspects of Survey Methodology". *Applied Cognitive Psychology* 21 (2), pp. 277–287.
- Selb, Peter, Marc Bühlmann, Thomas Christin, Dominique Joye, Romain Lachat, Oscar Mazzoleni, and Sarah Nicolet Bille (2019a). Swiss Electoral Studies (Selects) 2003: Panel – Study Documentation. Universität Zürich, Institut für Politikwissenschaft - IPZ et al. URL: https:// www.swissubase.ch/en/catalogue/studies/7918/18465/datasets/412/2347/files/ document/30489/12048/physicalFile (visited on 03/15/2023).
- Selb, Peter, Marc Bühlmann, Thomas Christin, Dominique Joye, Romain Lachat, Oscar Mazzoleni, and Sarah Nicolet Bille (2020). Swiss Election Study (Selects) 2003. University of Zurich, Department of Political Science, Chair of Comparative Politics et al. URL: https://www. swissubase.ch/en/catalogue/studies/7918/18465/overview (visited on 03/11/2023).
- Selb, Peter, Marc Bühlmann, Thomas Christin, Dominique Joye, Romain Lachat, Oscar Mazzoleni, and Sarah Nicolet Bille (2023). Swiss Electoral Studies (Selects) 2003: Das Verhalten der Wählerinnen und Wähler im nationalen und im regionalen Kontext. Universität Zürich, Institut für Politikwissenschaft - IPZ et al. URL: https://www.swissubase.ch/en/catalogue/studies/ 7918/18465/datasets/411/528/files/document/127/866/physicalFile (visited on 03/25/2023).
- Selb, Peter, Georg Lutz, Marc Bühlmann, Marco Steenbergen, Philipp Leimgruber, Sarah Nicolet Bille, Widmer Alexander, Dominique Joye, Daniele Caramani, and Oscar Mazzoleni (2019b). *Swiss Electoral Studies (Selects) 2007 – Study Documentation*. Universität Zürich, Institut für Politikwissenschaft - IPZ et al. URL: https://www.swissubase.ch/en/catalogue/studies/ 8992/18975/datasets/528/2249/files/document/30185/11239/physicalFile (visited on 03/15/2023).
- SRG and gfs.bern (2023). *Population survey 'How are you Switzerland?', wave 1.* unpublished. Study by the research institute gfs.bern on behalf of the Swiss Broadcasting Corporation (SRG/SSR).

Stadler, Peter (1996). Der Kulturkampf in der Schweiz. Zürich: Chronos.

- SWI (2022). Die politischen Parteien der Schweiz. swissinfo.ch (SWI). URL: https://www. swissinfo.ch/ger/politik/die-politischen-parteien-der-schweiz/28977748 (visited on 04/24/2023).
- Tajfel, Henri (1970). "Experiments in Intergroup Discrimination". *Scientific American* 223 (5), pp. 96–103.
- Tajfel, Henri (1981). *Human Groups and Social Categories: Studies in Social Psychology*. Cambridge: Cambridge University Press.
- Tajfel, Henri and John C. Turner (1979). "An Integrative Theory of Intergroup Conflict". *The social psychology of intergroup relations*. Ed. by William G. Austin and Stephen Worchel. Pacific Grove, CA: Brooks/Cole, pp. 33–47.
- Traber, Denise, Lukas F. Stoetzer, and Tanja Burri (2023). "Group-based public opinion polarisation in multi-party systems". *West European Politics* 46 (4), pp. 652–677.
- Tresch, Anke, Lukas Lauener, Laurent Bernhard, Georg Lutz, and Laura Scaperrotta (2020a). Eidgenössische Wahlen 2019. Wahlteilnahme und Wahlentscheid. Selects and FORS, Lausanne. URL: https://forscenter.ch/wp-content/uploads/2020/06/selects-studie-2019_ de_fin.pdf (visited on 04/25/2023).
- Tresch, Anke, Georg Lutz, Lukas Lauener, Nicolas Pekari, Robert Baur, Thomas De Rocchi, and Andreas Goldberg (2020b). Swiss Election Study (Selects), cumulative dataset 1971-2019. FORS Swiss Centre of Expertise in the Social Sciences et al. URL: https://www.swissubase.ch/en/catalogue/studies/8862/16984/overview (visited on 03/11/2023).
- Turner, John C., Michael A. Hogg, Penelope J. Oakes, Stephen D. Reicher, and Margaret S. Wetherell (1987). *Rediscovering the Social Group: A Self-Categorization Theory*. Oxford: Basil Blackwell.
- Voelkel, Jan G., James Chu, Michael N. Stagnaro, Joseph S. Mernyk, Chrystal Redekopp, Sophia L. Pink, James N. Druckman, David G. Rand, and Robb Willer (2023). "Interventions reducing affective polarization do not necessarily improve anti-democratic attitudes". *Nature Human Behaviour* 7 (1), pp. 55–64.
- Wagner, Markus (2021). "Affective polarization in multiparty systems". *Electoral Studies* 69, p. 102199.
- Wagner, Markus (2024). "Affective polarization in Europe". *European Political Science Review*, pp. 1–15.
- Ward, Dalston G. and Margit Tavits (2019). "How partisan affect shapes citizens' perception of the political world". *Electoral Studies* 60, p. 102045.
- Webster, Steven W. and Alan I. Abramowitz (2017). "The Ideological Foundations of Affective Polarization in the US Electorate". *American Politics Research* 45 (4), pp. 621–647.

- Weiss, Chagai M. (2022). "Compulsory Military Service Reduces Affective Polarization: Evidence from Conscription Reforms in Europe". Conflict and Polarization Lab, Stanford King Center on Global Development.
- Zollinger, Delia (2024). "Cleavage identities in voters' own words: Harnessing open-ended survey responses". *American Journal of Political Science* 68 (1), pp. 139–159.
- Zollinger, Delia and Denise Traber (2023). "The ideological space in Swiss politics: Voters, parties, and realignment". *The Oxford Handbook of Swiss Politics*. Ed. by Patrick Emmenegger, Flavia Fossati, Silja Häusermann, Yannis Papadopoulos, Pascal Sciarini, and Adrian Vatter. Oxford: Oxford University Press. Chap. 7, pp. 116–136.

A Appendix

Survey questions from 'How are you Switzerland?' 2023

Affect values towards political parties

Survey questions regarding respondents' affective feelings towards political parties were split into three versions corresponding to different existing questions over time used in the Selects surveys from 1975 to 2011. These questions again are split into two sub-versions, where one asks about political parties directly, leaving it up to respondents what partisan exponents to think of ('party'-framework), and the other specifically asks about people who support specific parties ('supporter'-framework). The latter variation of the framework-specific split was not exploited in the scope of this study.

Survey experiment version A (Pol3a) [eq. to 2003/2007; 'party'-framework]

Survey question: "Jetzt möchten wir gerne wissen, was Sie über einige der politischen Parteien denken. Stufen Sie bitte die MITTE, FDP, SP, SVP, GRÜNE, GLP und EVP auf einer Skala von 0 bis 10 ein. 0 bedeutet, dass Sie diese Partei überhaupt nicht mögen. 10 bedeutet, dass Sie diese Partei sehr mögen.

Wenn Sie von einer der Parteien noch nichts gehört haben oder über eine Partei nicht so gut Bescheid wissen, markieren Sie bitte einfach die entsprechenden Felder."

- MITTE
- FDP
- SP
- SVP
- GRÜNE
- GLP
- EVP

Response scale: [0;10]; "kenne ich nicht"; "weiss nicht"; "keine Antwort"

(Own survey item based on questionnaire from Selb et al., 2023, p. 421 and Selb et al., 2019b, p. 476 ff.)

Survey experiment version B (Pol3b) [eq. to 2003/2007; 'supporter'-framework]

Survey question: "Jetzt möchten wir gerne wissen, was Sie über Personen denken, welche bestimmte politische Parteien unterstützen. Stufen Sie bitte Personen auf einer Skala von 0 bis 10 ein, welche die MITTE, FDP, SP, SVP, GRÜNE, GLP und EVP unterstützen. 0 bedeutet, dass Sie diese Personen überhaupt nicht mögen. 10 bedeutet, dass Sie diese Personen sehr mögen.

Wenn Sie von einer der Parteien noch nichts gehört haben oder über eine Partei nicht so gut Bescheid wissen, markieren Sie bitte einfach die entsprechenden Felder."

- Personen, welche die MITTE unterstützen
- Personen, welche die FDP unterstützen
- Personen, welche die SP unterstützen
- Personen, welche die SVP unterstützen
- Personen, welche die GRÜNE unterstützen
- Personen, welche die GLP unterstützen
- Personen, welche die EVP unterstützen

Response scale: [0;10]; "kenne ich nicht"; "weiss nicht"; "keine Antwort"

(Own survey item based on questionnaire from Selb et al., 2023, p. 421 and Selb et al., 2019b, p. 476 ff.)

Survey experiment version C (Pol3c) [eq. to 1995/1999; 'party'-framework]

Survey question: "Jetzt möchten wir gerne wissen, was Sie über einige der politischen Parteien denken. Im Folgenden finden Sie eine Liste von politischen Parteien. Bitte geben Sie jedes Mal an, wo diese für Sie auf der Skala von 0 bis 10 stehen, wenn 0 "gar keine Sympathie" und 10 "sehr viel Sympathie" heisst."

- MITTE
- FDP
- SP
- SVP
- GRÜNE
- GLP
- EVP

Response scale: [0;10]; "weiss nicht"; "keine Antwort"

(Own survey item based on questionnaire from Kriesi et al., 2019b, p. 110 ff. and Kriesi et al., 2019a, p. 269 ff.)

Survey experiment version D (Pol3d) [eq. to 1995/1999; 'supporter'-framework]

Survey question: "Jetzt möchten wir gerne wissen, was Sie über Personen denken, welche bestimmte politischen Parteien unterstützen. Im Folgenden finden Sie eine Liste von Personengruppen. Bitte geben Sie an, wo diese Personen für Sie auf der Skala von 0 bis 10 stehen, wenn 0 "gar keine Sympathie" und 10 "sehr viel Sympathie" heisst."

- Personen, welche die MITTE unterstützen
- Personen, welche die FDP unterstützen
- Personen, welche die SP unterstützen
- Personen, welche die SVP unterstützen
- Personen, welche die GRÜNE unterstützen
- Personen, welche die GLP unterstützen
- Personen, welche die EVP unterstützen

Response scale: [0;10]; "weiss nicht"; "keine Antwort"

(Own survey item based on questionnaire from Kriesi et al., 2019b, p. 110 ff. and Kriesi et al., 2019a, p. 269 ff.)

Survey experiment version E (Pol3e) [eq. to 1975; 'party'-framework]

Survey question: "Politische Parteien beeinflussen das Leben in der Schweiz. Wir würden gerne wissen, wie Sie einige von ihnen beurteilen. Hier ist ein Sympathie-Thermometer. Geben Sie bitte den folgenden Parteien Punkte von 0 bis 100, je nachdem wie sehr Sie sie schätzen. 100 bedeutet dabei, dass Ihnen die jeweilige Partei ohne Einschränkung sympathisch ist; 0 bedeutet, dass sie Ihnen ganz und gar unsympathisch ist, und 50 bedeutet, dass Sie die entsprechende Partei weder schätzen noch ablehnen. Wie beurteilen Sie...?"

- MITTE
- FDP
- SP
- SVP
- GRÜNE
- GLP
- EVP

Response scale: [0;100]; "weiss nicht"; "keine Antwort"

(Own survey item based on questionnaire from Kerr et al., 1977, p. 16)

Survey experiment version F (Pol3f) [eq. to 1975; 'supporter'-framework]

Survey question: "Politische Parteien beeinflussen das Leben in der Schweiz. Wir würden gerne wissen, wie Sie Personen beurteilen, welche bestimmte politische Parteien unterstützen. Hier ist ein Sympathie-Thermometer. Geben Sie bitte den folgenden Personengruppen Punkte von 0 bis 100, je nachdem wie sehr Sie schätzen. 100 bedeutet dabei, dass Ihnen diese Personen ohne Einschränkung

sympathisch sind; 0 bedeutet, dass sie Ihnen ganz und gar unsympathisch sind, und 50 bedeutet, dass Sie die entsprechenden Personen weder schätzen noch ablehnen. Wie beurteilen Sie…?"

- Personen, welche die MITTE unterstützen
- Personen, welche die FDP unterstützen
- Personen, welche die SP unterstützen
- Personen, welche die SVP unterstützen
- Personen, welche die GRÜNE unterstützen
- Personen, welche die GLP unterstützen
- Personen, welche die EVP unterstützen

Response scale: [0;100]; "weiss nicht"; "keine Antwort"

(Own survey item based on questionnaire from Kerr et al., 1977, p. 16)

Trust towards governmental authorities

Trust towards several groups of people (Pol2)

Survey question: "Welchen der folgenden Personen vertrauen Sie, wenn es um politische oder gesellschaftliche Fragen geht, die uns alle betreffen?"

- Berufsfachleute
- Wissenschaftler:innen
- Journalist:innen
- Parlamentarier:innen
- Mitglieder kantonaler Regierungen/Bundesrat
- Religiöse Führer:innen
- Wirtschaftsführer:innen
- Gewerkschaftsführer:innen
- Vertreter: innen von Zivilorganisationen, wie Umweltverbände oder Hilfswerke
- Leute wie Sie und ich

Response scale: "Vertraue ich sehr stark"; "Vertraue ich eher stark"; "Vertraue ich eher nicht"; "Vertraue ich überhaupt nicht"; "weiss nicht"; "keine Antwort"

(SRG and gfs.bern, 2023)

Different forms of political participation

Voting frequency (Pol3)

Survey question: "Angenommen, in einem Jahr gibt es 10 eidgenössische Abstimmungstermine. An wie vielen davon nehmen Sie normalerweise teil?"

Response scale: [0;10]; "weiss nicht"; "keine Antwort"

(SRG and gfs.bern, 2023)

Discussing politics with own peers (Pol4b)

Survey question: "Wenn Sie mit Freunden oder Verwandten zusammen sind, würden Sie sagen, Sie diskutieren häufig, gelegentlich oder niemals über politische Angelegenheiten?"

Response scale: "Häufig"; "Gelegentlich"; "Niemals"; "weiss nicht"; "keine Antwort"

(Own survey item based on questionnaire from European Commission 2022, p. 41)

Convincing peers on political issues (Pol5a)

Survey question: "Kommt es vor, dass Sie Ihre Freunde, Ihre Verwandten oder Ihre Arbeitskollegen von einer Meinung überzeugen, auf die Sie selbst großen Wert legen? Geschieht dies häufig, gelegentlich oder niemals?"

Response scale: "Häufig"; "Von Zeit zu Zeit"; "Selten"; "Niemals"; "weiss nicht"; "keine Antwort"

(Own survey item included in SRG and gfs.bern, 2023)

Considered to run for a political office (Org2c)

Survey question: "Lokal bis national gibt es viele politische Ämter z.B. im Gemeinde-, Stadt- oder Regierungsrat, im Gemeinde-, Kantons- oder Bundesparlament, oder in der Sozial-, Bau- oder Rechnungsprüfungskommission. Haben Sie sich je überlegt, ein politisches Amt zu übernehmen?"

Response scale: "Ja, ganz konkret"; "Ja, allgemein"; "Nein"; "weiss nicht"; "keine Antwort"

(Own survey item included in SRG and gfs.bern, 2023)

Ever held a political office (Org5b)

Survey question: "Haben oder hatten Sie je ein politisches Amt inne?"

Response scale: "Ja"; "Nein"; "weiss nicht"; "keine Antwort"

(Own survey item included in SRG and gfs.bern, 2023)

Survey questions from the Swiss Electoral Studies 1975-2011

Affect values towards political parties

1975

Survey question: "Eine Reihe von Gruppen und Vereinigungen beeinflusst das politische Leben in der Schweiz. Wir würden gerne wissen, wie Sie einige von Ihnen beurteilen. Hier ist ein Sympathie-Thermometer.

Geben Sie bitte den Gruppen und Vereinigungen, die ich nenne, Punkte von 0 bis 100, ja nachdem, wie sehr Sie sie schätzen. 100 bedeutet dabei, dass Ihnen die Gruppe oder Organisation ohne Einschränkung sympathisch ist; 0 bedeutet, dass sie Ihnen ganz und gar unsympathisch ist, und 50 bedeutet, dass Sie die entsprechende Gruppe oder Organisation weder schätzen noch ablehnen."

- ...die Sozialdemokratische Partei
- ...die kleinen Geschäftsleute
- ...[die] Bewegung zu Gleichberechtigung der Frau
- ...Revolutionäre Gruppen
- ...die Armee
- ...die Gastarbeiter
- ...die Freisinnige Partei
- ...protestierende Studenten
- ...die Verwaltung
- ...die Polizei
- ...die grossen Unternehmungen
- ...die katholische Kirche
- ...die Gewerkschaften der Arbeiter
- ...die kommunsitische Partei
- ...die Nationale Aktion

Response scale: [0;100]; "unentschlossen, kein Urteil"

(Kerr et al., 1977, p. 16)

1995

Preceeding Survey question: "Es gibt Organisationen, für die man mehr Sympathie hat, und solche, für die man weniger Sympathie hat. [...]"

Survey question: "Ähnlich ist es mit politischen Parteien. Ich lese Ihnen jetzt einige politische Parteien vor. Bitte sagen Sie mir jedesmal, wo diese für Sie auf der Skala von 0 bis 10 stehen, wenn 0 "gar keine Sympathie" und 10 "sehr viel Sympathie" heisst."

- CVP
- Freiheits-Partei (früher Auto-Partei)
- FDP
- Grüne
- Partei der Arbeit
- SVP
- SP
- Landesring der Unabhägingen (LdU)
- Parti libéral (PLS)
- Lega dei Ticinesi

Response scale: [0;10]; "trifft nicht zu"; "keine Angabe"

(Kriesi et al., 2019b, p. 110 ff.)

1999

Survey question: "Jetzt möchte ich gerne wissen, was Sie über unsere politische Parteien denken. Wenn ich den Namen einer politischen Partei vorlese, sagen Sie mir bitte jedesmal, wo diese für Sie auf einer Skala von 0 bis 10 stehen, wenn 0 "gar keine Sympathie" und 10 "sehr viel Sympathie" heisst. Wenn Sie eine von diese Parteien nicht kennen oder wenn Sie denken, nicht ausreichend informiert zu sein, um eine Partei einzustufen, sagen Sie es einfach."

- Christlich-demokratische Volkspartei (CVP)
- Freisinnig-demokratische Partei (FDP)
- Sozialdemokratische Partei (SP)
- Schweizerische Volkspartei (SVP)
- Liberale Partei (LP)
- Parti du Travail/Solidarités (Alliance de gauche)
- Grüne/Grüne Partei
- Landesring der Unabhängigen (LdU)

- Freiheitspartei / Autopartei
- Lega dei Ticinesi
- Liberal-sozialistische Partei

Response scale: [0;10]; "kennt Partei nicht"; "weiss nicht"; "keine Angabe"

(Kriesi et al., 2019a, p. 269 ff.)

2003

Survey question: "Jetzt möchte[n] wir gerne wissen, was Sie über unsere politischen Parteien denken. Stufen Sie bitte die CVP, FDP, SP, SVP, GRÜNE und EVP auf der Skala unten von 0 bis 10 ein. 0 bedeutet, dass Sie diese Partei überhaupt nicht mögen und 10 bedeutet, dass Sie diese Partei sehr mögen. Wenn Sie von einer der Parteien noch nichts gehört haben oder über eine Partei nicht so gut Bescheid wissen, markieren Sie bitte die entsprechenden Felder."

- CVP
- FDP
- SP
- SVP
- GRÜNE
- EVP

Response scale: [0;10]; "kennt Partei nicht"; "weiss nicht"; "keine Angabe"

(Selb et al., 2023, p. 421)

Note: This survey item was part of the complementary survey in 2003 and was conducted by mail form. A comparison of the panel codebook from 2003 (Selb et al., 2019a, p. 290 ff.) with the questionnaire from 2003 (Selb et al., 2023, p. 421) as well as with the list of parties towards which affect values are available in the data shows that the question wording and the indicated data collection mode provided in the panel codebook has at some point been wrongly transmitted. Thereby it is also not clear, whether respondents' partian affect values have been conducted via telephone interview (as indicated in the codebook) or via survey form in absence of an interviewer (as indicated by question wording from the questionnaire).

2007

Survey question: "Jetzt möchten wir gerne wissen, was Sie über einige der politischen Parteien denken. Stufen Sie bitte die CVP, FDP SP SVP, GRÜNE und EVP auf einer Skala von 0 bis 10 ein.

0 bedeutet, dass Sie diese Partei überhaupt nicht mögen. 10 bedeutet, dass Sie diese Partei sehr mögen.

Wenn Sie von einer der Parteien noch nichts gehört haben oder über eine Partei nicht so gut Bescheid wissen, markieren Sie bitte einfach die entsprechenden Felder."

- CVP
- FDP
- SP
- SVP
- GRÜNE
- EVP
- LPS
- LEGA

Response scale: [0;10]; "kennt Partei nicht"; "weiss nicht"; "keine Angabe"

(Selb et al., 2019b, p. 476 ff.)

2011

Survey question: "Jetzt möchte ich wissen, was Sie über die politischen Parteien denken. Nachdem ich Ihnen den Namen der Partei vorgelesen habe, können Sie mir bitte auf einer Skala von 0-10 sagen, wie sympathisch Sie die finden, wenn 0 bedeutet, dass Sie diese Partei sehr unsympathisch finden und 10 bedeuet, dass Sie diese Partei sehr sympathisch finden. Wenn Sie von einer Partei noch nie etwas gehört haben, oder wenn Sie das Gefühl haben, zu wenig zu wissen, sagen Sie das nur. Die erste Partei ist die [PARTEI]."

- FDP
- CVP
- SVP
- SP
- Grüne
- BDP
- Grünliberale

Response scale: [0;10]; "weiss nicht"; "keine Angabe"

(Lutz and Pekari, 2019, p. 86 ff.)

Satisfaction with democracy and trust towards governmental authorities

Satisfaction with (Swiss) democracy (1999-2011)

Survey question: "Sind sie mit der Art und Weise, wie die Demokratie in der Schweiz funktioniert, alles in allem 'sehr zufrieden', 'ziemlich zufrieden', 'nicht sehr zufrieden' oder 'überhaupt nicht zufrieden'?"

Response scale: "sehr zufrieden"; "ziemlich zufrieden"; "nicht sehr zufrieden"; "überhaupt nicht zufrieden"; "weiss nicht"; "keine Antwort"

(Kriesi et al., 2019a; Selb et al., 2019a; Selb et al., 2019b; Lutz and Pekari, 2019)

Trust in the national parliament and the Federal Council (1995-2011)

Survey question: "Ich lese Ihnen jetzt einige wichtige Instanzen [bzw. Institutionen] in der Schweiz vor. Bitte sagen Sie mir jedesmal, wie stark Sie der Institution vertrauen, wenn 0 'kein Vertrauen' und 10 'volles Vertrauen' heisst."

- Bundesrat
- Parlament (Nationalrat, Ständerat)

Response scale: [0;10]; "keine Antwort"

(Kriesi et al., 2019b; Kriesi et al., 2019a; Selb et al., 2019a; Selb et al., 2019b; Tresch et al., 2020b)

Different forms of political participation

Voting frequency (1995-2011)

Survey question: "Neben Wahlen gibt es bei uns ja auch Abstimmungen über Sachfragen. Nehmen wir an, es gibt in einem Jahr 10 eidgenössiche Abstimmungen. An wievielen von diesen 10 nehmen Sie normalerweise teil?"

Response scale: [0;10]; "keine Antwort"

(Kriesi et al., 2019b; Kriesi et al., 2019a; Selb et al., 2019a; Selb et al., 2019b; Lutz and Pekari, 2019)

Several political activities (1995, 2003-2011)

Survey question: "Ausser Wahlen und Abstimmungen gibt es auch noch andere politische Aktivitäten. Ich lese Ihnen jetzt ein paar vor. Bitte sagen Sie mir jedesmal, ob Sie sich in den letzten 5 Jahren [aus dem einen oder anderen Grund] ausgeübt haben."

- Eine Volksinitiative oder ein Referendum unterschreiben
- An einer politischen Versammlung teilnehmen
- Unterschriften sammeln
- Einer politischen Organisation Geld spenden
- In einer politischen Partei aktiv sein
- In einer Bürgerinitiative aktiv sein
- An einer Demonstration teilnehmen

Response scale: "Ja"; "Nein"; "keine Antwort"

(Kriesi et al., 2019b; Kriesi et al., 2019a; Selb et al., 2019a; Selb et al., 2019b; Lutz and Pekari, 2019; Tresch et al., 2020b)

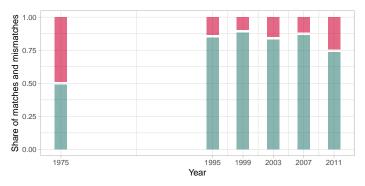
B Appendix

Data from Selects 1975: limited data quality

The Selects cumulative file 1971-2019 by Tresch et al. (2020b) also includes reported affect values for some political parties for 1975. However, the data quality is not sufficient to consider the values in our analysis. First, there are differences in the question wording and answer scales. In contrast to data from 1995, 1999, 2003, and 2011, affect values from 1975 are based on a question using a "sympathy-thermometer" with a scale of 0 - 100 instead of favorability values in the range of 0 - 10 (see Appendix A). Second, the sympathy questions in 1975 did not only refer to political parties but to a list of both political parties and non-partisan groups, i.e., "small businessmen", "feminists", "the catholic church" or "the police" (see Appendix A). It is not clear how this context exactly affects respondents' answering behavior, but there is a large empirical literature that shows that people do extract information from survey questions/context in order to anticipate and contextualize the scope of scales they are confronted with (for a review of the literature on cognitive aspects of survey methodology, see Schwarz, 2007). It is, therefore, plausible that survey participants do not apply the same relative scales when asked about a battery of political parties only compared to when asked about a more general list of groups and organizations. Third, while the Selects data was generally collected by phone interviews, the wave in 1975 was the only one that was solely conducted by interviewers in the physical presence of the respective interviewer. Survey mode is a much-discussed and empirically studied topic within the literature on cognitive distortions potentially triggered by survey methods. In fact, according to Leeuw and Berzelak (2016, p. 147 ff.), one of the most important differences in survey modes identified by the literature occurs with respect to the dimension of 'interviewer-' (such as face-to-face- or phone interviews) vs. 'self-administrated' questionnaires (such as mail-, e-mail-,

or online surveys), since an interviewer's perceived presence does interfere with respondents' experienced privacy when answering questions. Iyengar and Krupenkin $(2018)^{24}$ show that people tend to give significantly more extreme responses regarding their feelings towards parties (on average ~ 10% more diverged affect values) when answering online relative to answering phone interviewers.

The issues mentioned up to this point primarily affect the comparability across survey waves and thus limit the use of 1975 data for time trend estimates. However, there are other aspects that make its use for a within-survey wave analysis questionable. This fourth aspect refers to the political parties considered in the survey. While respondents in the years from 1995 onwards usually have been asked about their feelings towards five to eight major political parties, respondents in 1975 were asked about four parties only. Moreover, these four parties did not even represent half of the population based on vote shares in parliamentary elections (see BFS, 2023), and for many respondents in 1975 affect values are only available for two or three of these four parties. While the (survey-weights weighted) average number of affect values from 1975 is 0.9 below. One implication from this circumstance is that the party with the highest affect value ("max.-affect-party") of about half of the respondents who indicated an affect value for at least two parties (which is the minimum number of affect values to compute a measure of AP) does not match with the party they identify with or feel closest too ("closest party"). This limitation of the data is illustrated in Figure 13.²⁵



Notes: Dark mint bars represent the share of matches between respondents' party to which they explicitly feels closest and the party towards they report the highest individual affect value. Data: Selb et al. (2020).

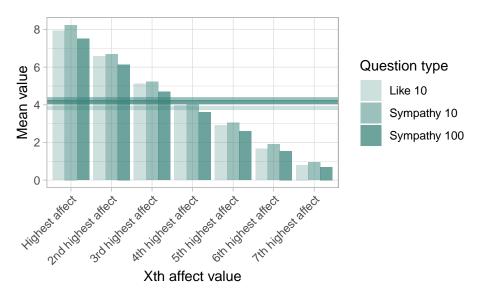
Figure 13: Shares of matches between the reported closest political party with the party towards which respondents report the highest affect value by year

Finally, data from 1975 was subject to a recording mistake. Since, at some point, missing values

²⁴Within their study on the decomposed components of AP (in-group-favoritism and out-group-animosity) Iyengar and Krupenkin (2018, p. 202 and 206) take advantage of the dual mode design of the 2016 wave from the American National Election Study (ANES) in which roughly a fourth off all respondents have been surveyed by phone interview, whereas the rest filled in an online survey.

²⁵The relatively high share of mismatches between the reported closest political parties and parties towards which respondents report high affect values in 2011 is mainly driven by people who feel particularly close to the newly founded Green Liberal Party (GLP; founded in 2007 and merged with the CVP to form "The Centre" party in 2021; SWI, 2022) and the Conservative Democratic Party (BDP; founded in 2008; SWI, 2022) and at the same time report high affect values towards the Greens (GPS) and the Swiss People's Party (SVP). These ambivalent reports are not too surprising since the GLP and the BDP were kind of spin-offs of the Greens and the SVP, respectively.

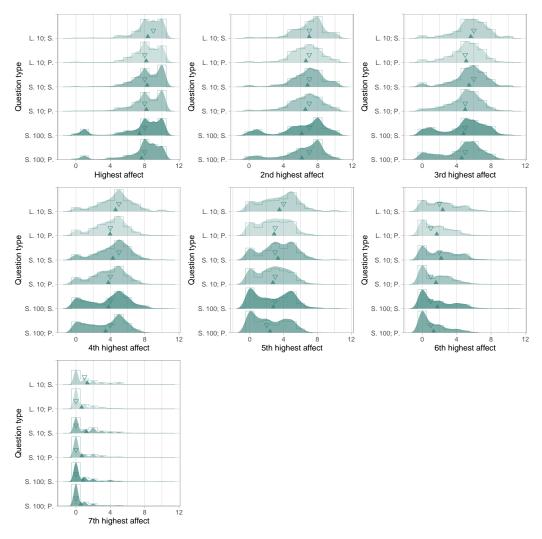
have been recoded with "0", zero-affect values from 1975 can not be distinguished from missing values anymore and have to be either interpreted uniformly as the former or the latter. An assessment of the scope of this problem can be derived from Boxell et al.'s (2024, p. 18 and Appendix, p. 24) bivariate time trend estimations in which they handle the zero-affect-values in both ways. The two accordingly estimated time trends differ by a factor of 0.61.



Survey experiments on question wording and response scales in party sympathy questions

Notes: The vertical bars show the mean affect values from left to right for the individually most liked to the seventh liked party. The horizontal line represents the average affect value across all seven individual affect values towards the seven largest political parties (2023). Lightest bars (left) show the mean affect values of individuals who answered the party sympathy question in the 'like 10' version, intermediate light bars (middle) the ones who answered the 'sympathy 10' version, and darkest bars (right) the ones who answered the 'sympathy 100' version. Data: SRG and gfs.bern (2023).

Figure 14: Means of sympathy-ranked affect values by different survey question wordings and response scales

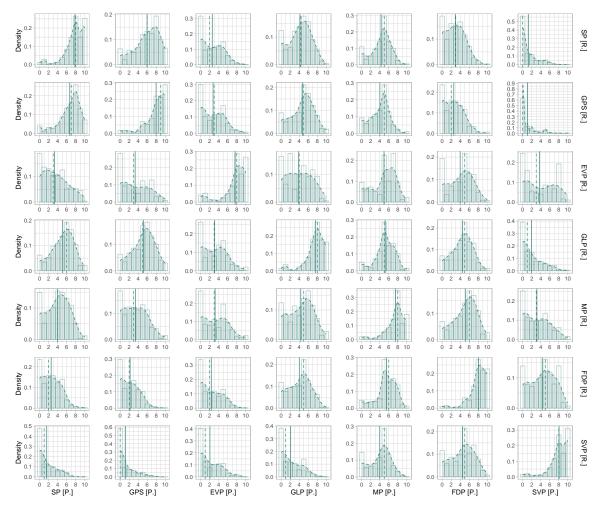


Notes: Distribution (smoothed densities) of the response values to the different party (P) and party supporter (S) sympathy questions. Filled upwards-pointing triangles mark the mean, while unfilled downwards-pointing triangles mark the median. Plots from top left to right show densities of response values towards the individually most liked to the seventh liked party. Lightest densities (top two) show the response values of individuals who answered the party sympathy question in the 'like 10' (L. 10) version, intermediate light densities (middle two) the ones who answered the 'sympathy 10' (S. 10) version, and darkest densities (bottom two) the ones who answered the 'sympathy 100' (S. 100) version. Data: SRG and gfs.bern (2023).

Figure 15: Distributions of sympathy-ranked affect values by different survey question wordings, response scales, and question addressee frameworks

C Appendix

Affect values towards political parties (2023)



Notes: The plots show the post-stratum-weighted distributions of respondents' affect values towards Switzerland's seven largest political parties [P.] (2023) from left (SP) to the right (SVP) grouped by respondents [R.] according to the most favorite party from the top (SP) to the bottom (SVP). The top plot row, for example, shows the distributions of the affect values towards the separate parties for individuals who report the highest sympathy for the SP. The underlying poststratum-weighted histograms are presented by light vertical bars. Post-stratum-weighted mean affect values reported towards the largest political parties in Switzerland (2023) are visualized as vertical solid lines in the figure, while weighted median values are visualized as vertical dashed lines. Data: SRG and gfs.bern (2023).

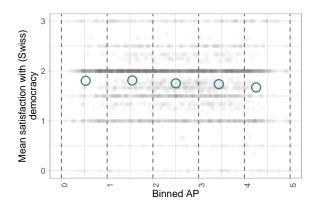
Figure 16: Weighted distributions of affect values towards political parties in Switzerland (2023) by respondents' favorite party

	SP	GPS	EVP	GLP	MP	FDP	SVP
SP	1.00	0.79	0.14	0.30	0.06	-0.30	-0.53
GPS	0.79	1.00	0.15	0.41	0.01	-0.32	-0.52
EVP	0.14	0.15	1.00	0.32	0.37	0.20	0.12
GLP	0.30	0.41	0.32	1.00	0.42	0.27	-0.20
MP	0.06	0.01	0.37	0.42	1.00	0.55	0.14
FDP	-0.30	-0.32	0.20	0.27	0.55	1.00	0.42
SVP	-0.53	-0.52	0.12	-0.20	0.14	0.42	1.00

Data: SRG and gfs.bern (2023).

Table 5: Correlation matrix of affect values towards different political parties in Switzerland (2023)

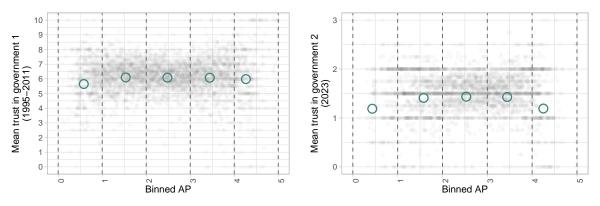
Satisfaction with (Swiss) democracy



Notes: Small, light gray dots show citizens' mean satisfaction with (Swiss) democracy reported on a categorical scale ranging from 0-3 dependent on individual AP scores. Large circles show the same for binned AP scores. Data: Selb et al. (2020) and BFS (2023).

Figure 17: Relationship between affective polarization (spread of scores) and satisfaction with democracy in Switzerland (2023)

Trust towards governmental authorities



(a) AP and trust in government 1 (1995-2011).

(b) AP and trust in government 2 (2023).

Notes: Small, light gray dots show citizens' mean trust towards governmental authorities (both from the legislative and the executive branches) reported on a scale from 0-10 (a) or on a categorical scale ranging from 0-3 (b) dependent on individual AP scores. Large circles show the same for binned AP scores.

Data: Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023).

Figure 18: Relationship between affective polarization (spread of scores) and trust towards the government in Switzerland

10 9 0 8 Mean voting frequency C 7 O 6 5 4 3 2 1 0 Binned AP

Voting frequency

Notes: Small, light gray dots show mean self-reported voting frequency out of ten national elections for separate individual AP scores. Large circles show the same for binned AP scores. Data: SRG and gfs.bern (2023) and BFS (2023).

Figure 19: Relationship between affective polarization (spread of scores) and voting frequency in Switzerland (2023)

D Appendix

Weighted Least Squares regression models

Voting frequency

	Voting frequency		
	(1)	(2)	
	Model 1	Model 2	
AP	0.484*** (0.015)	0.485*** (0.015)	
Mean affect		0.096*** (0.011)	
Observations	25,490	25,490	
Adjusted R ²	0.250	0.252	
F Statistic	46.475*** (df = 190; 25,302)	46.763*** (df = 188; 25,301)	

Notes: Weighted least squares regressions. Further included control variables are year, canton, sex, age group, level of education, and income × household size, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01.

Data: Tresch et al. (2020b), SRG and gfs.bern (2023), and BFS (2023).

Table 6: Affective polarization and voting frequency

Discussing politics with peers

	Discussing politics with peers		
	(1)	(2)	
	Model 1	Model 2	
AP	0.085*** (0.005)	0.085*** (0.005)	
Mean affect		-0.001 (0.004)	
Observations	10,185	10,185	
Adjusted R ²	0.119	0.119	
F Statistic	13.331^{***} (df = 112; 10,072)	13.213^{***} (df = 113; 10,071)	

Notes: Weighted least squares regressions. Further included control variables are canton, sex, age group, level of education, and income × household size, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01.

Data: SRG and gfs.bern (2023) and BFS (2023).

Table 7: Affective polarization and discussing politics with peers

Convincing peers on political issues

	Convincing peers on political		
	(1)	(2)	
	Model 1	Model 2	
AP	0.046*** (0.004)	0.047*** (0.004)	
Mean affect		0.037*** (0.006)	
Observations	11,054	11,054	
Adjusted R ²	0.088	0.092	
F Statistic	10.575^{***} (df = 112; 10,941)	10.890^{***} (df = 113; 10,940)	

Notes: Weighted least squares regressions. Further included control variables are canton, sex, age group, level of education, and income × household size, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01.

Data: SRG and gfs.bern (2023) and BFS (2023).

Table 8: Affective polarization and convincing peers on political issues

Attending political meetings

	Attending political meetings		
	(1)	(2)	
	Model 1	Model 2	
AP	0.041*** (0.004)	0.043*** (0.004)	
Mean affect		0.016*** (0.003)	
Observations	11,929	11,929	
Adjusted R ²	0.081	0.083	
F Statistic	9.943*** (df = 117; 11,811)	10.160^{***} (df = 118; 11,810)	

Notes: Weighted least squares regressions. Model 1 includes the control variable year. Model 2 further includes the control variables canton, sex, level of education, and income × household size. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 9: Affective polarization and attending political meetings

Collecting signatures

	Collecting signatures		
	(1)	(2)	
Model 1		Model 2	
AP	0.028*** (0.004)	0.027*** (0.004)	
Mean affect		-0.008*** (0.003)	
Observations	11,936	11,936	
Adjusted R ²	0.034	0.034	
F Statistic	4.565*** (df = 117; 11,818)	4.606*** (df = 118; 11,817)	

Notes: Weighted least squares regressions. Further included control variables are year, canton, sex, age group, level of education, and income × household size. p<0.1; p<0.05; p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 10: Affective polarization and collecting signatures

Signing an initiative or a referendum

	Signing an initiative or a referendum			
	(1)	(2)		
	Model 1	Model 2		
AP	0.035*** (0.004)	0.035*** (0.004)		
Mean affect		-0.003 (0.003)		
Observations	11,824	11,824		
Adjusted R ²	0.093	0.093		
F Statistic	11.303^{***} (df = 117; 11,706)	11.216^{***} (df = 118; 11,705)		

Notes: Weighted least squares regressions. Further included control variables are year, canton, sex, age group, level of education, and income × household size. p<0.1; p<0.05; p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 11: Affective polarization and signing an initiative or a referendum

Donating money to a political organization

	Donating money to a political organization		
	(1)	(2)	
	Model 1	Model 2	
AP	0.045*** (0.004)	0.045*** (0.004)	
Mean affect		0.001 (0.003)	
Observations	11,937	11,937	
Adjusted R ²	0.066	0.066	
F Statistic	8.261*** (df = 117; 11,819)	8.191*** (df = 118; 11,818)	

Notes: Weighted least squares regressions. Further included control variables are year, canton, sex, age group, level of education, and income × household size. p<0.1; p<0.05; p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 12: Affective polarization and donating money to a political organization

Participating in a demonstration

	Participating in a demonstration		
	(1)	(2)	
	Model 1	Model 2	
AP	0.047*** (0.003)	0.045*** (0.003)	
Mean affect		-0.011*** (0.002)	
Observations	11,940	11,940	
Adjusted R ²	0.099	0.101	
F Statistic	12.217*** (df = 117; 11,822)	12.354^{***} (df = 118; 11,821)	

Notes: Weighted least squares regressions. Further included control variables are year, canton, sex, age group, level of education, and income × household size. p<0.1; p<0.05; p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 13: Affective polarization and participating in a demonstration

Partially Proportional Odds Logistic regression models

Satisfaction with democracy

	Satisfactio	on with (Swiss) democracy
	(1)	(2)
	Model 1	Model 2
AP at sat. w. dem. $0 \ge 1$	-0.363*** (0.053)	-0.356*** (0.052)
AP at sat. w. dem. $\leq 1 \mid \geq 2$	-0.233*** (0.024)	-0.211*** (0.024)
AP at sat. w. dem. $\leq 2 3$	0.102*** (0.035)	0.143*** (0.036)
Mean affect at sat. w. dem. $0 \ge 1$		0.247*** (0.041)
Mean affect at sat. w. dem. $\leq 1 \geq 2$		0.206*** (0.019)
Mean affect at sat. w. dem. $\leq 2 3$		0.163*** (0.030)
Constant at sat. w. dem. $0 \ge 1$	-0.018*** (0.105)	-0.019*** (0.105)
Constant at sat. w. dem. $\leq 1 \mid \geq 2$	-0.019*** (0.105)	-0.019*** (0.106)
Constant at sat. w. dem. $\leq 2 3$	-0.019*** (0.105)	-0.019*** (0.106)
Observations	8,090	8,090
Log-likelihood	-8,021.726	-7,956.579
Number of Fisher scoring iterations	6	6

Notes: Partially proportional odds logistic regression. Further control variables included in the models are year, canton, sex, age group, level of education, and income × household size. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 14: Affective polarization and satisfaction with (Swiss) democracy

	Trust in government 2 (2023)	
	(1)	
	Model 3	
AP at trust in gov. $0 \ge 0.5$	0.021 (0.114)	
AP at trust in gov. $\leq 0.5 \geq 1$	0.372*** (0.097)	
AP at trust in gov. $\leq 1 \geq 1.5$	0.322*** (0.086)	
AP at trust in gov. $\leq 1.5 \geq 2$	0.186* (0.095)	
AP at trust in gov. $\leq 2 \geq 2.5$	0.726*** (0.180)	
AP at trust in gov. $\leq 2.5 3$	1.318*** (0.387)	
Mean affect at trust in gov. $0 \ge 0.5$	0.768*** (0.078)	
Mean affect at trust in gov. $\leq 0.5 \geq 1$	0.867*** (0.062)	
Mean affect at trust in gov. $\leq 1 \geq 1.5$	0.674*** (0.049)	
Mean affect at trust in gov. $\leq 1.5 \geq 2$	0.558*** (0.052)	
Mean affect at trust in gov. $\leq 2 \geq 2.5$	0.649*** (0.096)	
lean affect at trust in gov. $\leq 2.5 3$ 0.878*** (0.206)		
AP × mean affect at trust in gov. $0 \ge 0.5$	-0.049* (0.030)	
AP × mean affect at trust in gov. $\leq 0.5 \mid \geq 1$	-0.122*** (0.024)	
AP × mean affect at trust in gov. $\leq 1 \geq 1.5$	-0.078*** (0.019)	
AP × mean affect at trust in gov. $\leq 1.5 \mid \geq 2$	-0.019 (0.020)	
AP × mean affect at trust in gov. $\leq 2 \geq 2.5$	-0.100*** (0.035)	
AP × mean affect at trust in gov. $\leq 2.5 3$	-0.221*** (0.076)	
Constant at trust in gov. $0 \ge 0.5$	0.084 (0.311)	
Constant at trust in gov. $\leq 0.5 \mid \geq 1$	-1.234*** (0.274)	
Constant at trust in gov. $\leq 1 \geq 1.5$	-2.343*** (0.258)	
Constant at trust in gov. $\leq 1.5 \geq 2$	-3.200*** (0.284)	
Constant at trust in gov. $\leq 2 \geq 2.5$	-6.414*** (0.532)	
Constant at trust in gov. $\leq 2.5 3$	-9.493*** (1.155)	
Observations	10,953	
Log-likelihood	-16,196.72	
Number of Fisher scoring iterations	8	

Notes: Partially proportional odds logistic regression. Further included control variables are sex, age group, level of education, income × household size, and canton, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01.

Data: Tresch et al. (2020b) and BFS (2023).

Table 15: Affective polarization and trust in government 2 (2023)

Voting frequency

	Voting frequency (categories)	
	(1)	(2)
	Model 1	Model 2
AP at voting freq. $0 \ge [1; 3]$	0.268*** (0.038)	0.236*** (0.037)
AP at voting freq. $\leq [1; 3] \geq [4; 6]$	0.424*** (0.022)	0.420*** (0.021)
AP at voting freq. $\leq [4; 6] \geq [7; 9]$	0.460*** (0.015)	0.460*** (0.015)
AP at voting freq. $\leq [7; 9] \geq 10$	0.384*** (0.014)	0.385*** (0.014)
Mean affect at voting freq. $0 \ge [1; 3]$		0.266*** (0.024)
Mean affect at voting freq. $\leq [1; 3] \geq [4; 6]$		0.127*** (0.014)
Mean affect at voting freq. $\leq [4; 6] \geq [7; 9]$		0.035*** (0.011)
Mean affect at voting freq. $\leq [7; 9] \geq 10$		0.006 (0.010)
Constant at voting freq. $0 \ge [1; 3]$	1.413*** (0.150)	0.254 (0.174)
Constant at voting freq. $\leq [1; 3] \geq [4; 6]$	-0.364*** (0.134)	-0.988*** (0.148)
Constant at voting freq. $\leq [4; 6] \geq [7; 9]$	-1.768*** (0.131)	-1.972*** (0.142)
Constant at voting freq. $\leq [7; 9] \geq 10$	-2.986*** (0.131)	-3.049*** (0.142)
Observations	25,490	25,490
Log-likelihood	-28,754.36	-28,685.47
Number of Fisher scoring iterations	6	6

Notes: Partially proportional odds logistic regression. The response variable voting frequency is transformed from numerical values to categories distinguishing between people who report participating in 0, [1; 3], [4; 6], [7; 9], and 10 out of 10 national ballots. Further included control variables are year, canton, sex, age group, level of education, income, and household size, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b), SRG and gfs.bern (2023), and BFS (2023).

Table 16: Affective polarization and voting frequency

Discussing politics with peers

	Discussing politics with peers	
	(1)	(2)
	Model 1	Model 2
AP at discussing pol. $0 \ge 1$	0.389*** (0.054)	0.249*** (0.058)
AP at discussing pol. $\leq 1 \mid \geq 2$	0.350*** (0.023)	0.356*** (0.023)
Mean affect at discussing pol. $0 \ge 1$		0.238*** (0.039)
Mean affect at discussing pol. $\leq 1 \mid \geq 2$		-0.047*** (0.017)
Constant at discussing pol. $0 \ge 1$	2.619*** (0.223)	2.048*** (0.232)
Constant at discussing pol. $\leq 1 \geq 2$	-1.483*** (0.191)	-1.301*** (0.200)
Observations	10,185	10,185
Log-likelihood	-6,232.955	-6,206.794
Number of Fisher scoring iterations	6	6

Notes: Partially proportional odds logistic regression. Further included control variables are canton, sex, age group, level of education, and income × household size, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01.

Data: SRG and gfs.bern (2023) and BFS (2023).

Table 17: Affective polarization and discussing politics with peers

Convincing peers on political issues

	Convincing peers on political	
	(1)	(2)
	Model 1	Model 2
AP at convincing peers $0 \ge 1$	0.118*** (0.013)	0.114*** (0.013)
AP at convincing peers $\leq 1 \mid \geq 2$	0.094*** (0.011)	0.096*** (0.0211)
AP at convincing peers $\leq 2 \geq 3$	0.117*** (0.018)	0.121*** (0.018)
Mean affect at convincing peers $0 \ge 1$		0.120*** (0.017)
Mean affect at convincing peers $\leq 1 \geq 2$		0.071*** (0.014)
Mean affect at convincing peers $\leq 2 \geq 3$		0.042 (0.025)
Constant at convincing peers $0 \ge 1$	1.649*** (0.142)	1.172*** (0.155)
Constant at convincing peers $\leq 1 \mid \geq 2$	0.185 (0.137)	-0.124 (0.151)
Constant at convincing peers $\leq 2 \geq 3$	-2.403*** (0.156)	-2.594*** (0.201)
Observations	11,054	11,054
Log-likelihood	-13,368.19	-13,314.89
Number of Fisher scoring iterations	6	6

Notes: Partially proportional odds logistic regression. Further included control variables are canton, sex, age group, level of education, and income × household size, as well as affect question type and survey recruiting method. *p<0.1; **p<0.05; ***p<0.01.

Data: SRG and gfs.bern (2023) and BFS (2023).

Table 18: Affective polarization and convincing peers on political issues

Attending political meetings

	Attending political meetings		
	(1) Model 1	(2) Model 2	
AP	0.252*** (0.023)	0.269*** (0.024)	
Mean affect		0.111*** (0.018)	
Constant	38.536*** (7.654)	38.824*** (7.663)	
Observations	11,929	11,929	
Log-likelihood	-6,120.510	-6,101.454	
Number of Fisher scoring iterations	12	12	

Notes: Ordered logistic regression. Further included control variables are year, canton, sex, age group, level of education, income, and household size. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 19: Affective polarization and attending political meetings

Collecting signatures

	Collecting signatures	
	(1)	(2)
	Model 1	Model 2
AP	0.199*** (0.026)	0.191*** (0.026)
Mean affect		-0.058*** (0.019)
Constant	47.971*** (8.693)	47.936*** (8.700)
Observations	11,936	11,936
Log-likelihood	-5,305.337	-5,300.658
Number of Fisher scoring iterations	13	13

Notes: Ordered logistic regression. Further included control variables are year, canton, sex, age group, level of education, income, and household size. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 20: Affective polarization and attending political meetings

Signing an initiative or a referendum

	Signing an initiative or a referendum	
	(1) Model 1	(2) Model 2
AP	0.178*** (0.021)	0.177*** (0.021)
Mean affect		-0.012 (0.015)
Constant	17.591*** (7.073)	17.579*** (7.073)
Observations	11,824	11,824
Log-likelihood	-6,869.298	-6,868.968
Number of Fisher scoring iterations	4	4

Notes: Ordered logistic regression. Further included control variables are year, canton, sex, age group, level of education, income, and household size. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 21: Affective polarization and signing an initiative or a referendum

Donating money to a political organization

	Donating money to a political organization	
	(1)	(2)
	Model 1	Model 2
AP	0.310*** (0.025)	0.311*** (0.025)
Mean affect		0.003 (0.019)
Constant	137.028*** (8.566)	137.027*** (8.567)
bservations	11,937	11,937
og-likelihood	-5,681.491	-5,681.474
umber of Fisher scoring iterations	12	12

Notes: Ordered logistic regression. Further included control variables are year, canton, sex, age group, level of education, income, and household size. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 22: Affective polarization and donating money to a political organization

Participating in a demonstration

	Participating in a demonstration	
	(1) (2)	
	Model 1	Model 2
AP	0.440*** (0.030)	0.425*** (0.030)
Mean affect		-0.109*** (0.023)
Constant	45.388*** (10.002)	45.603*** (10.023)
Observations	11,940	11,940
Log-likelihood	-4,201.995	-4,190.646
Number of Fisher scoring iterations	12	12

Notes: Ordered logistic regression. Further included control variables are year, canton, sex, age group, level of education, income, and household size. *p<0.1; **p<0.05; ***p<0.01. Data: Tresch et al. (2020b) and BFS (2023).

Table 23: Affective polarization and participating in a demonstration

Willingness to run for a political office

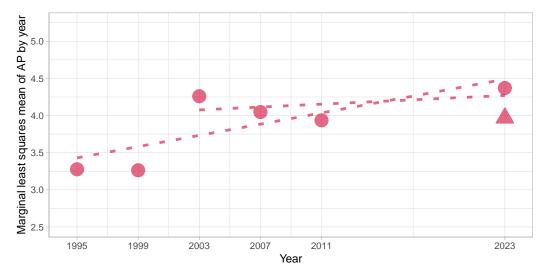
	Considered to run for a political office	Ever held a political office	
	(1)	(2)	
	Model 3	Model 3	
AP at a pol. office $0 \ge 1$	-0.103 (0.081)	0.399*** (0.116)	
AP at a pol. office $\leq 1 2$	0.621*** (0.105)		
Mean affect at a pol. office $0 \ge 1$	-0.046 (0.045)	0.157** (0.065)	
Mean affect at a pol. office $\leq 1 2$	0.211*** (0.061)		
AP × mean affect at a pol. office $0 \ge 1$	0.057*** (0.018)	-0.029 (0.025)	
AP × mean affect at a pol. office $\leq 1 2$	-0.080*** (0.023)		
Constant at a pol. office $0 \ge 1$	-1.329*** (0.253)	-6.414*** (0.417)	
Constant at a pol. office $\leq 1 2$	-4.244 (0.326)		
Observations	10,901	11,079	
Log-likelihood	-9,656.03	-3,963.7742	
Number of Fisher scoring iterations	8	13	

Notes: Partially proportional odds logistic regressions. Further included control variables are canton, sex, age group, level of education, and income × household size, as well as affect question type and survey recruiting method. *p<0.1; *p<0.05; ***p<0.01.

Data: Tresch et al. (2020b) and BFS (2023).

Table 24: Affective polarization and willingness to run for a political office

E Appendix



Affective polarization over time

Notes: Time trends from simple linear regressions (OLS) based on the yearly least squares means are visualized by the dotted line for the whole period from 1995 to 2023 and once for the more recent period from 2003 to 2023, respectively. Least squares means by year are computed based on a weighted linear regression, controlling for question wording ('like 10', vs. 'sympathy 10'). Observations for 2023 are visualized separately depending on survey recruiting methods. The triangle shows the least squares mean of individuals recruited by river sampling, while points represent least squares means of respondents from pre-stratified samples.

Data: Selb et al. (2020), SRG and gfs.bern (2023), and BFS (2023).

Figure 20: Development of aggregate affective polarization (mean distance) in Switzerland between 1995 and 2023.