

Sports and Sub-nationalist Sentiment: Evidence from Spanish Football*

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Abstract

While it is intuitive that sporting events that are held *across* countries can activate nationalistic sentiments by serving as a unifying force for a common cause, it is also possible that *within*-country events may similarly exacerbate existing internal political cleavages. This paper assesses this possibility using the case of the rivalry between two of the most popular Spanish football clubs: FC Barcelona and Real Madrid CF. The two teams stand on opposite sides of the debate on Catalan independence from Spain—FC Barcelona is viewed as representing Catalan identity, and Real Madrid CF is viewed as an emblem of Spanish centralism. We use nationally and regionally representative surveys fielded in Spain to estimate the short-term effects of matches on voting intention, opinions toward Spanish territorial organization, and nationalistic sentiment, leveraging the timing of matches around the fieldwork period of the surveys to identify causal effects. We find that Catalan respondents are more likely to report that they intend to vote for Catalan-nationalist parties while all other respondents are more likely to vote for right-wing anti-nationalist parties in the wake of matches, although each of these effects are small. Moreover, Catalan respondents are more likely to report that they favor a system of government which would allow autonomous communities to become independent.

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1 Introduction and context

Can collective events which prime existing political cleavages change reported voting behavior? Existing research shows that men’s national football team victories in Africa lead people to identify with their country over their ethnic group and build trust across ethnicities (Depetris-Chauvin, Durante and Campante, 2020). Football can be a unifying force in societies, yet it can also be used to create divisions and stoke nationalist sentiment. Indeed, Rosenzweig and Zhou (2021) find that football matches can create negative attitudes toward out-group members. What happens when the matches occur *within* subnational boundaries? Although Ronconi (2022) finds that among Latin American club rivalries social cohesion improves as a result of football matches, these rivalries “create intercommunity divisions that are *orthogonal* (emphasis ours)” to other political divisions. By contrast, other football rivalries can be deeply rooted in important social cleavages.

A prominent European football rivalry that fits this billing is the one between Spanish football clubs FC Barcelona and Real Madrid CF. These two teams are among the most successful football teams in the world. A meeting between them is dubbed as *El Clásico*, (The Classic), and it is a match which is usually one of the most viewed global sporting events each year. Both teams are the most successful members of the Spanish professional league, La Liga, but the rivalry goes beyond sporting competition and has become symbolic of underlying political issues. Real Madrid CF is the team of the Spanish capital, and is viewed as representing Spanish centralism. FC Barcelona, on the other hand, is the largest and most successful team in the province of Catalonia, has come to be intensely representative of Catalan nationalism. In December 2019, after the Spanish Supreme Court sentenced nine Catalan independence leaders to lengthy prison terms for sedition, those who opposed these sentences took a match between these two teams as an opportunity to protest the decisions. Just outside the stadium, a march ended with protesters throwing Molotov cocktails that set barricades on fire, injuring dozens. From within the stadium, the match itself was interrupted by protesters who threw hundreds of yellow beach balls amid loud

chants in favor of Catalan independence.

Given this context, this paper asks whether these sorts of matches can change political behavior and public opinion. To test this proposition, We leverage the timing of Spanish public opinion surveys around FC Barcelona and Real Madrid CF matches, using intended vote for various political parties as the primary outcome.

2 Theory

This project contributes to a nascent but growing literature on how sports, and specifically football can shape politics ([Alrababa'h et al., 2021](#); [Depetris-Chauvin, Durante and Campante, 2020](#); [Rosenzweig and Zhou, 2021](#)). This line of work is distinct from a separate strand of research on sports and politics, primarily in American politics (e.g., [Healy, Malhotra and Mo, 2010](#)) which argues that events like sports which are “irrelevant” to politics can influence how voters evaluate elected officials because of an irrational updating by voters. By this logic, events that are salient but nevertheless unrelated to politics generate strong positive or negative feelings that voters mistakenly attribute to incumbent politicians. Although some of this research has drawn criticism as potentially spurious ([Fowler and Montagnes, 2015](#)), we abstract away from these critiques to argue that there are *theoretical* reasons we would expect differences for highly salient football matches. Indeed, the mechanism by which matches between FC Barcelona and Real Madrid CF can create political change are different and clearer. The theory presented here does not rely on voters “irrationally” attributing the positive (or negative) feelings they receive from sports matches to an incumbent politician, rather, the very teams themselves are built on opposing political foundations.

As discussed, over time, FC Barcelona has become symbolic of Catalanism. It is a club fully owned by its members, and only Catalan members can vote in its elections. Its badge (roughly analogous to logo for American sports teams) contains the Catalan flag. During General Francisco Franco’s regime in Spain (1939-1975), the central authorities suppressed

the expression of regional identities, including the use of the Catalan language. This led many Catalans to see FC Barcelona not just merely a football team but also an emblem for their culture in the face of the oppressive regime: the team took on the motto of “*Més que un club*”, or “More than a club.” Many of its most successful players are Catalan and were trained in *La Masia*, the club’s youth academies based in the city itself. During matches, Catalan flags are waived, and chants favoring the team and the broader Catalan nationalist movement are often blurred together. During championship celebrations fans and players at the club regularly call out “*Visca el Barça i visca Catalunya*”—“Long live Barça and long live Catalonia.”

Therefore, we expect football matches of the team to activate feelings of Catalan nationalism and thus foster reported changes in voting intention for parties that embrace Catalan nationalism among fans in Catalonia¹ as proxied by Catalan residency.²

Hypothesis 1 (H1). *Among individuals who reside in Catalonia, those who are interviewed just after an FC Barcelona versus Real Madrid match will be more likely to report that they intend to vote for Catalan nationalist parties and support Catalan nationalism more broadly, relative to those interviewed just before the match.*

This simple logic also provides implications for placebo tests: those who are not fans of the team as proxied by their residency in other autonomous communities should be unaffected by the matches, and respondents should not change their reported intended voting behavior for non-Catalan nationalist parties in the wake of matches. We use heterogeneity by victory and incumbency status to distinguish the political activation explanation proposed here from a framework of “irrational” updating.

¹Although FC Barcelona has fans across Spain, We expect supporters who live in Catalonia to be most plausibly susceptible to have their reported intended voting behavior changed by matches of the team, given that these supporters are already more likely to be exposed Catalan nationalist rhetoric.

²RCD Espanyol is another Barcelona-based team that has historically played in the first division of Spanish football, however, it is much less popular and successful than FC Barcelona. Moreover, it has historically been seen as the representative of compliance to central Spanish authority as opposed to Catalan nationalism, relative to FC Barcelona’s Catalan tendencies, as its name suggests.

3 Data and empirical strategy

Individual level respondent data comes from the *Centro de Investigaciones Sociológicas* (CIS), or Center for Sociological Research—this is a public research institute in Spain which conducts monthly public opinion surveys. Although the surveys vary in their content, most ask about voting intention and most contain microdata with the interview date included. This project follows the empirical strategy of [Balcells and Torrats-Espinosa \(2018\)](#)—who study the effects of terrorists attacks on electoral participation—using the timing of events during the execution of the CIS surveys to compare respondents who were interviewed just before the occurrence of the event of interest with those who were interviewed just after. The events of interest here are FC Barcelona matches versus Real Madrid CF matches. We collected data on all 128 matches FC Barcelona and Real Madrid CF have played against each other since June 1979, including match metadata such as the date and score. We then matched the date of each football match to the first and last interview date of each CIS survey in order to identify which matches occur during the CIS fieldwork period. This yields 15 matches, summarized in Table 1.³

The identifying assumption is that treatment (whether a respondent is interviewed just after a match as opposed to just before a match) is conditionally ignorable. The decentralized fieldwork structure of the CIS makes this assumption plausible: although the CIS is based in Madrid, the fieldwork coordinators are each based in different provinces of Spain ([Balcells and Torrats-Espinosa, 2018](#)). Within each province, enumerators assigned to specific localities conduct door-to-door interviews based on a “random route” system ([Balcells and Torrats-Espinosa, 2018](#)).⁴ This motivates our estimation strategy, which uses OLS to estimate the effects of being interviewed after a match on propensity to support Catalan parties:

³The matches surrounding the following three surveys—3213, 3162, 2981, corresponding to matches on the 6th of May 2018, the 3rd of December 2016, and 2nd of March 2013, respectively—do not ask respondents about their future voting intention. For these matches, we use two alternative outcomes of Catalan nationalism instead. These alternative outcomes are not asked about in the remaining 12 matches which are used to estimate the main effects, so we use the alternative outcome measures to probe mechanisms.

⁴Unfortunately but understandably, the data does not contain identifying information of the interviewer nor locality in which the respondent resides.

Match Date	Match Type	Match Score	Played in Barcelona	CIS Survey ID	Survey Start	Survey End
2022-01-12	Supercopa	2-3	Yes	3347	2022-01-03	2022-01-14
2021-04-10	La Liga	1-2	No	3318	2021-04-05	2021-04-14
2019-12-18	La Liga	0-0	Yes	3269	2019-11-29	2019-12-19
2019-03-02	La Liga	1-0	No	3242	2019-03-01	2019-03-18
2019-02-06	Copa del Rey	1-1	Yes	3240	2019-02-01	2019-02-10
2018-05-06	La Liga	2-2	Yes	3213	2018-05-01	2018-05-10
2016-12-03	La Liga	1-1	Yes	3162	2016-12-01	2016-12-11
2016-04-02	La Liga	1-2	Yes	3134	2016-04-01	2016-04-10
2013-03-02	La Liga	1-2	No	2981	2013-03-01	2013-03-12
2012-10-07	La Liga	2-2	Yes	2960	2012-10-02	2012-10-14
2010-04-10	La Liga	2-0	No	2834	2010-04-06	2010-04-14
2006-10-22	La Liga	0-2	No	2657	2006-10-18	2006-10-25
2004-04-25	La Liga	2-1	No	2561	2004-04-22	2004-04-27
1995-05-27	La Liga	1-0	Yes	2181	1995-05-25	1995-06-02
1993-01-30	La Liga	1-2	No	2046	1993-01-27	1993-02-04

Table 1: List of FC Barcelona vs. Real Madrid matches which have a matching CIS survey. In the “Match Score” column, the FC Barcelona scores are listed first.

$$Y_{ipm} = \alpha_{pm} + \tau Post_{ipm} + \beta' X_i + \epsilon_{ipm}, \quad (1)$$

where i indexes individuals living in province p and m indexes each match (and concurrently, CIS survey). The treatment effect of interest is τ , and α_{pm} are match times province fixed effects to compare only respondents interviewed around the same match in a given province. The vector X_i contains individual characteristics that are optionally included. Standard errors are clustered at the match-date level to reflect the level of treatment assignment. The outcomes Y_{ipm} tested are various vote intention outcomes as well as attitudes toward the organization of the Spanish government and personal feelings of Spanish versus Catalan nationalism.

Besides the main specification, we also examine heterogeneity in treatment effects by interacting relevant covariates with the treatment variable. In addition, we present results disaggregated by each individual match date as well as event study plots to evaluate trends

in the lead-up to individual matches.

An important decision must be made about the bandwidth used to estimate treatment effects. This is a classic example of the bias-variance trade-off. If one chooses a smaller bandwidth and it is more likely that individuals are comparable, and moreover, that no other events are driving the effects, but the sample size will be smaller. Conversely a larger bandwidth favors the reduction of variance by bringing in more respondents that were interviewed in days further away from the match. To ensure the results are not sensitive to an arbitrary choice of bandwidth, we present results for a 1, 3, 5, and 7-day windows around the match date, as well as the full sample of all respondents in each survey in which a match occurred. Respondents who were interviewed the day of the match are excluded from the sample.

To validate the identifying assumption, we present assessments of covariate balance using the 1-day bandwidth. Table 2 reports results from regressions that are analogous to Equation 1 except that instead of regressing treatment on the outcomes of interest, we regress treatment on each covariate—and of course, the covariates are not included in the model to predict covariates. The covariates are all binary variables, so the coefficient can be interpreted as the percentage point difference of the trait across each group. Table 2 presents results for Catalan and all other respondents separately. Most of the differences across respondents are substantively quite small and not statistically significant. Encouragingly, this is particularly the case for recalled vote for Catalan parties in a previous election. Table A1 reports results of covariate balance where the bandwidth is varied. Furthermore, Figure A.1.2 reports p-values for the covariates sorted by magnitude across various bandwidths. The p-values are tightly clustered around the 45-degree line for both sets of respondents. All this suggests that once match and province fixed effects are accounted for, any remaining imbalances are likely due only to chance.

Given this, and following the discussion in Section 2, we evaluate how matches change intention to vote for different groupings of Spanish political parties: (1) Catalan nationalist

	Catalan respondents			All other respondents		
	Control group mean	Coefficient	p-value	Control group mean	Coefficient	p-value
Previous vote: Catalan	0.1873	-0.0058	0.814	0.0008	-0.0000	0.974
Previous vote: Anti-nationalist parties	0.0368	-0.0149	0.142	0.0564	0.0013	0.693
Previous vote: Other nationalist parties	0.0000	0.0025	0.357	0.0320	0.0025	0.646
Previous vote: PSOE	0.1706	0.0179	0.194	0.2413	0.0081	0.619
Previous vote: PP	0.0513	-0.0005	0.972	0.1862	0.0026	0.801
Previous vote: All other parties	0.1003	-0.0073	0.706	0.0935	0.0032	0.696
Previous vote: Did not vote	0.1293	-0.0130	0.396	0.1061	0.0002	0.987
Previous vote: Don't know/no answer	0.1315	-0.0029	0.9	0.1219	-0.0107	0.377
Previous vote: Blank vote/null vote	0.0268	-0.0079	0.141	0.0224	0.0040	0.503
Female	0.5050	0.0101	0.361	0.5113	-0.0062	0.284
Age: 18-34	0.2852	0.0080	0.752	0.2532	0.0344	0.109
Age: 35-64	0.4949	-0.0146	0.616	0.5074	-0.0038	0.783
Age: 65-99	0.2198	0.0066	0.628	0.2394	-0.0306	0.047**
Education: None	0.0780	-0.0170	0.188	0.1040	-0.0208	0.017**
Education: Primary	0.2698	0.0266	0.514	0.2545	-0.0172	0.257
Education: Secondary	0.2297	0.0327	0.262	0.2805	0.0214	0.266
Education: University	0.1851	-0.0203	0.521	0.1550	0.0032	0.744
Education: Other	0.0100	-0.0061	0.258	0.0053	-0.0003	0.909
Municipality size: < 2,000	0.0446	0.0448	0.134	0.0946	-0.0088	0.639
Municipality size: 2,000 - 10,000	0.1115	-0.0070	0.888	0.1624	-0.0298	0.491
Municipality size: 10,000 - 50,000	0.2821	0.0491	0.47	0.2662	0.0666	0.1*
Municipality size: 50,000 - 100,000	0.1282	-0.1154	0.066*	0.1035	0.0168	0.656
Municipality size: 100,000 - 400,000	0.1973	-0.0067	0.936	0.2479	-0.0531	0.193
Municipality size: 400,000 - 1,000,000	0.0000	-0.0000		0.0667	0.0071	0.731
Municipality size: > 1,000,000	0.2363	0.0353	0.69	0.0587	0.0012	0.963
Religion: Catholic	0.6016	-0.0512	0.354	0.7202	0.0492	0.03**
Religion: Atheist/agnostic	0.3528	0.0659	0.201	0.2380	-0.0427	0.018**
Religion: Other	0.0283	0.0069	0.742	0.0228	-0.0042	0.476
Religion: Doesn't answer/doesn't know	0.0173	-0.0215	0.161	0.0189	-0.0024	0.708

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 2: Covariate balance, 1-day window.

parties such as Junts per Catalunya (JxCat) and Esquerra Republicana de Catalunya (ERC) that support Catalan nationalism, (2) anti-nationalist parties like VOX that are generally right-wing populist parties in favor of Spanish centralism and against decentralization, (3) other nationalist parties which support separatism for other regions of the country (e.g., Basque parties like Eusko Alkartasuna). Next, we report results for two single parties, (4) the Partido Socialista Obrero Español (PSOE) and (5) the Partido Popular (PP). These two are the largest and most popular parties in Spain and the primary governing parties during the time period of the sample, with the former being the traditional left-wing force in Spanish politics and the latter being a center-right conservative party. Both parties are relatively centralist. The last four categories are miscellaneous categories: (6) any other parties, (7) the respondent does not intend to vote, (8) the respondent does not know who they will vote for or the respondent does not answer, (9) and the respondent intends to give a blank vote or a null vote, a potential form of electoral protest (Superti, 2020). The set of voting intention outcomes are exhaustive and mutually exclusive and so can represent the full set of changes made possible by matches. Table A2 shows how each answer choice for vote intention in the different CIS surveys were classified into these 9 separate categories. In addition, we evaluate as outcomes opinions to territorial organization and centralization in Spain, as well as personal evaluations of nationalist identity.

4 Results

4.1 Main results

Figure 1 presents results from models that include province-match fixed effects only. Each panel represents one of nine different vote intention outcomes, separated by Catalan and non-Catalan respondents. Figure 2 shows how these effects vary over different bandwidths.

For the 1-day bandwidth, Catalan respondents interviewed after the match were approximately 1.95 p.p. more likely to report to intend to vote for Catalan parties, although

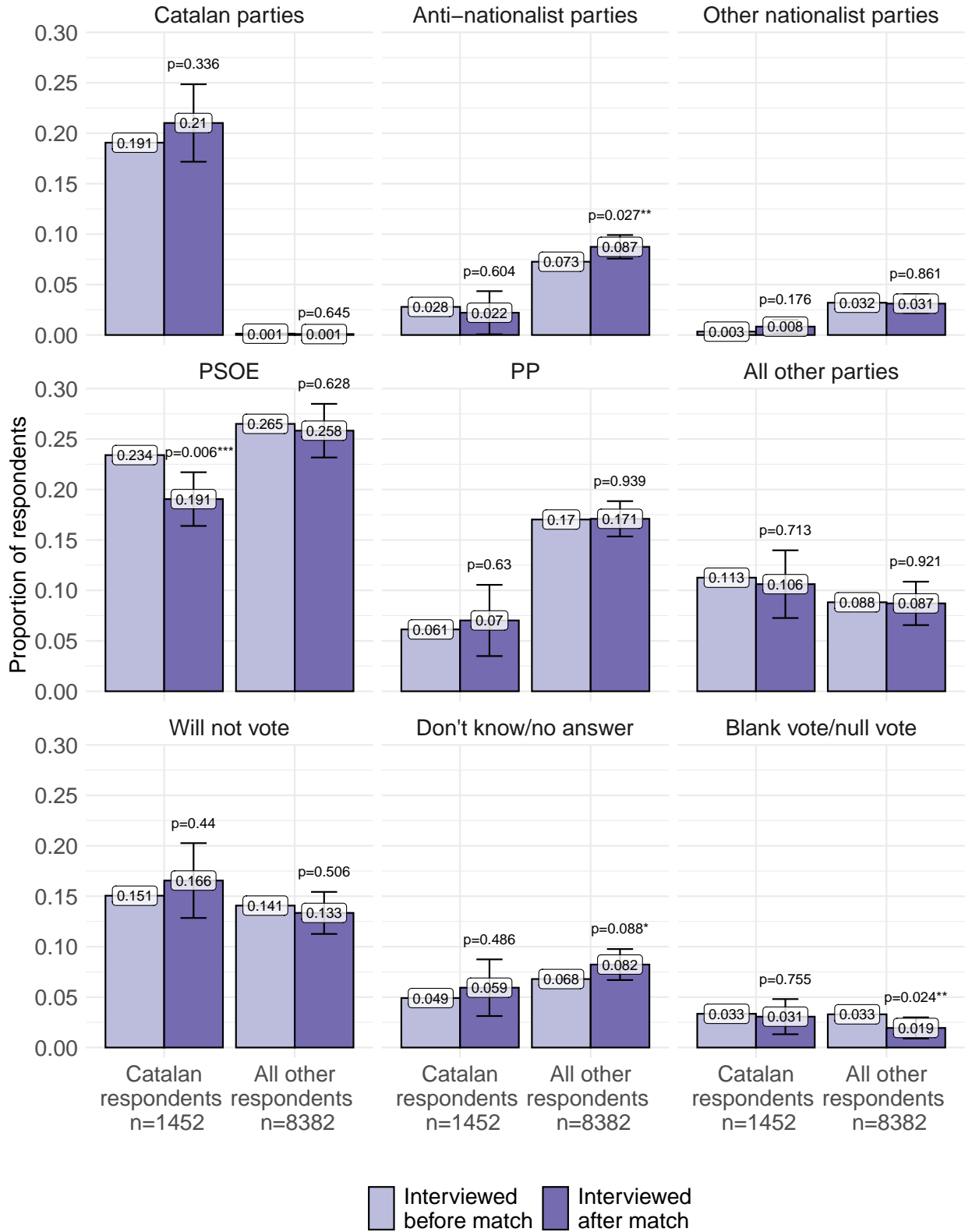


Figure 1: Main results. 1-day bandwidth. All models include province \times match-date fixed effects. Standard errors are clustered at the match-date level.

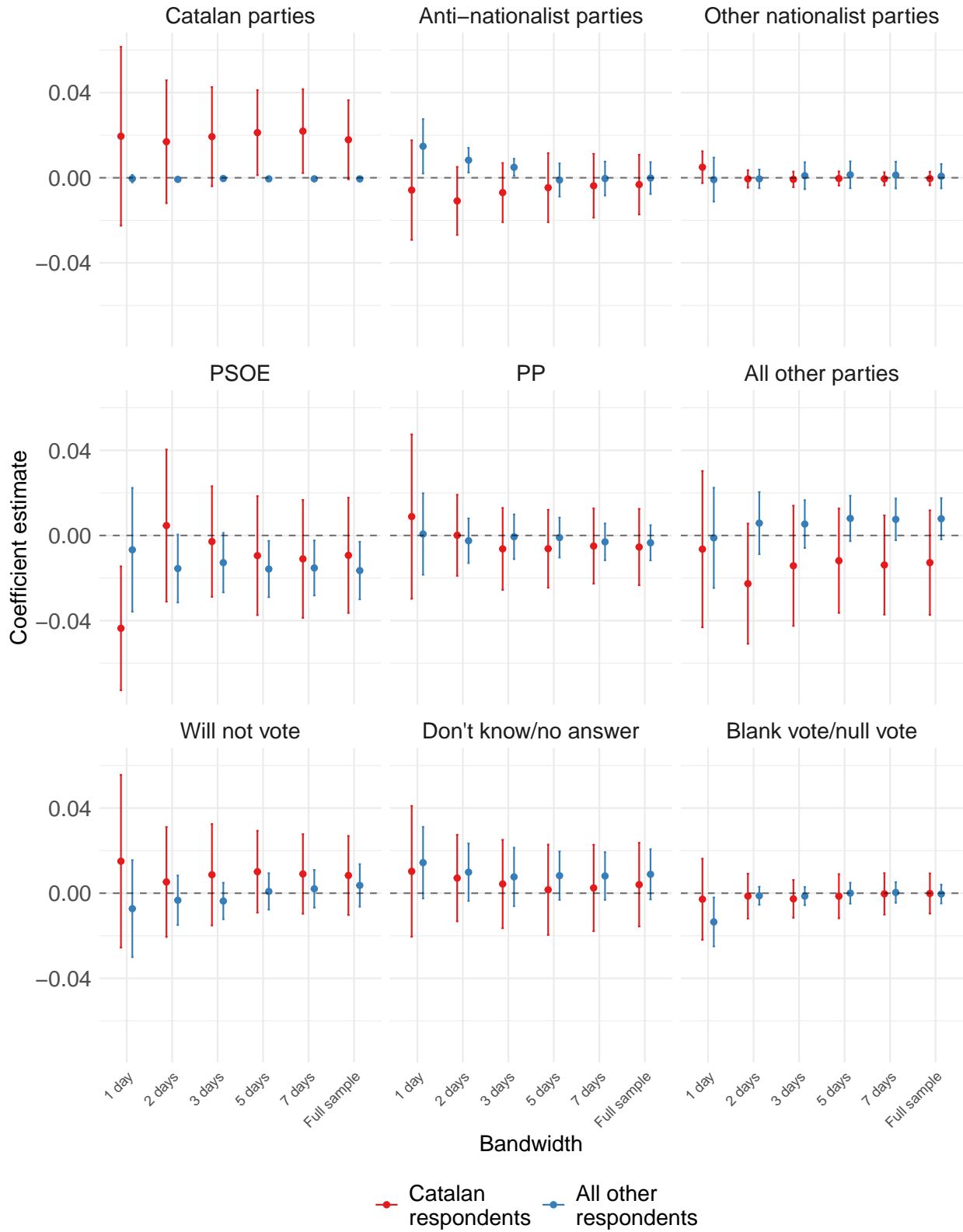


Figure 2: Main results, varying bandwidth. All models include province \times match-date fixed effects. Standard errors are clustered at the match-date level, used to calculate 95% confidence intervals.

this effect is not statistically significant (95% confidence interval: [-2.25, 6.15]). This effect, while small—it corresponds to about 10% of the mean outcome in the control group or approximately 5% of a standard deviation—is remarkably consistent across wider bandwidths. Unsurprisingly given the low baseline proportion of all other respondents who report intending to vote for Catalan parties, the effect for non-Catalan respondents is basically zero (-0.04 p.p., 95% confidence interval: [-0.22, 0.14]) across all bandwidths.

All other respondents, however, were more likely to report an intention to vote for anti-nationalist parties when interviewed after a match by 1.48 p.p., (95% confidence interval: [0.020, 2.76]), suggestive of a possible backlash effect, potentially comparable to the electoral backlash to transitional-justice based removal of Francoist street names in Spain found by [Villamil and Balcells \(2021\)](#). However, this effect does not hold for the 5- or 7-day or full sample bandwidths.

As expected, FC Barcelona vs. Real Madrid matches do not change vote intention for other nationalist parties neither among the set of Catalan respondents nor the set of all other respondents. This indicates that non-Catalan respondents are not reacting broadly to the centralism debate activated by *Clásico* matches.

PSOE vote intention drops by 4.36 p.p. (95% confidence interval [-7.27, -1.45]) for Catalan respondents with no corresponding effect for all other respondents, although this effect appears to be an illusory function of the 1-day bandwidth, since no comparable effect is found when looking at wider bandwidths. PP vote intention is generally unchanged across all respondents. The PSOE and PP are both generally against Catalan independence ([Atienza-Barthelemy et al., 2019](#)), but given the small, imprecisely estimated negative effects among Catalan respondents for all vote intention options that correspond to any parties that are not classified as Catalan parties, this suggests that the change in vote intention comes not from a single party but is drawn across all non-Catalan parties.

Similarly, we do not find statistically significant effects for intention to not vote, although this effect is broadly positive across all bandwidths. Nevertheless, all other respondents were

more likely by 1.44 p.p. (95% confidence interval [-0.24, 3.12]) to respond that they do not know who they will vote for or not answer when interviewed after a match, and less likely by 1.35 p.p. (95% confidence interval [-2.50, -0.20]) to intend to submit a blank or null ballot. This former result is consistent over different bandwidths while the latter is not.

Table A3 present the 1-day bandwidth results in regression table format and add probe alternative specifications. The columns of the table alternate across the Catalan respondents and all other respondents samples. Three separate specifications are used. The first, presented in Columns 1 and 2, is equivalent to the results presented in Figure 1, which include only the aforementioned province-match fixed effects α_{pm} . The second specification, presented in Columns 3 and 4 includes province-match fixed effects and non-political pre-treatment covariates that are included in *every* survey (sex, age, education, municipality size). The last specification in Columns 5 and 6 controls for province-match fixed effects and the relevant “lagged outcome” variable for each outcome. For example, the models which predict intended reported vote for Catalan parties include a control for whether the respondent reported to have voted for a Catalan party in the previous election. The results are consistent across all three specifications. Table A6 presents results which vary the bandwidth around 2, 3, 5, and 7 days, as well as the full sample—including all respondents for each survey in regression table form. The forest plot in Figure A3 clarifies the effective variation that composes the aggregated results and the treatment effect in each individual match, while Figure A5 presents event study plots.

4.2 Mechanism results

The 12 surveys that were used to estimate the results for intended vote choice unfortunately do not ask directly about questions related to Catalan nationalism. Conversely, in three additional surveys that occurred around other matches respondents were not asked about vote intention, but they *were* asked two questions that can be used to assess relevant mechanisms. The first, we call *opinion of territorial organization*. The question asks respondents to select

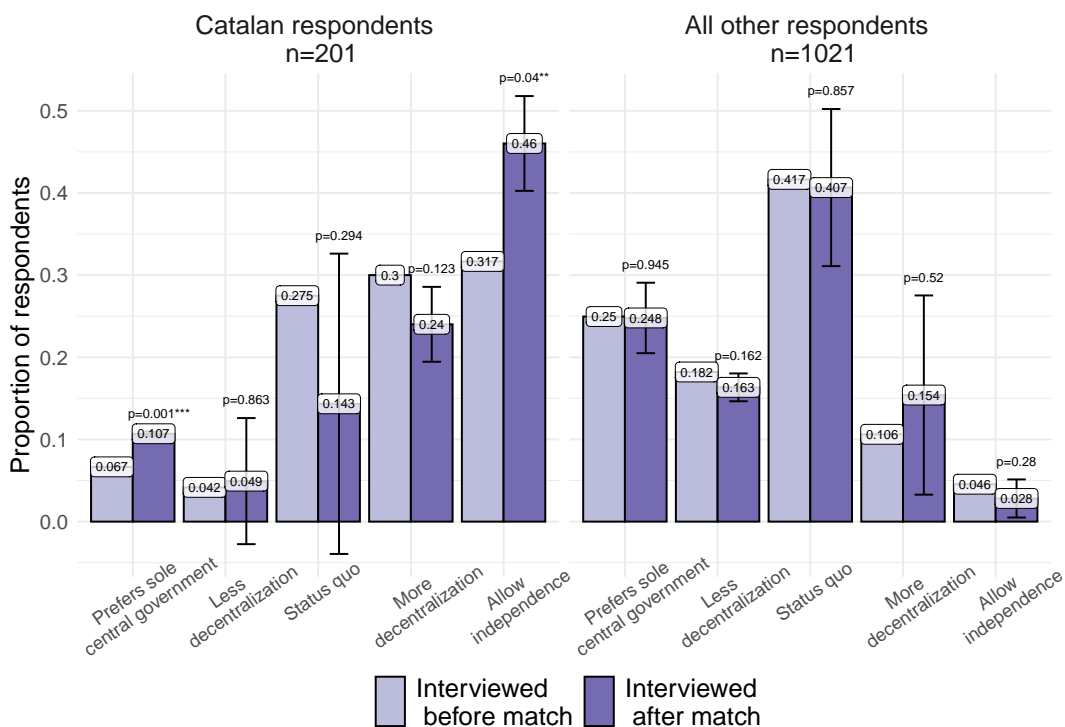
their most preferred alternative format for territorial organization of Spain, and the answer options—a 5-point ordinal scale—range from a fully centralized central government to a state in which autonomous communities can themselves become independent states.⁵ The second, we call *personal national identification*. This question asks respondents to select—again across a 5-point scale—whether they identify more with their Spanish identity than their autonomous community identity.⁶ This outcome is closely comparable to the main outcome of Depetris-Chauvin, Durante and Campante (2020). For each of these questions, we turn each of the answer options into a binary outcome variable and fit regression specifications analogous to Equation 1.

Figure 3 shows that the matches appear to polarize Catalan respondents when it comes to their opinions on centralization in Spain. Among these respondents, those who are interviewed just after a match are 4.03 p.p. (95% confidence interval: [3.42, 4.64]) more likely to answer that they prefer a fully centralized Spain with only a central government than interviewed just after a match. On the other hand, Catalan respondents interviewed after a match are also more likely by 13.46 p.p. (95% confidence interval: [1.69, 27.02]) to answer that they support a system of government in which the autonomous communities would have the ability to become independent. The magnitude of these results corresponds to almost 60% and 45% of the control group outcome mean, respectively, and 0.16 and 0.45 of the control group standard deviation. This suggests that the main treatment effects may be attenuated by anti-nationalist Catalans. Importantly, these results are broadly consistent

⁵The (translated) question reads: “I will now present to you some alternative formulas for territorial organization of the state of Spain. Please tell me which you most agree with.” The answer options are: (1) “a state with only one central government and no autonomous communities”, (2) “a state in which the autonomous communities have less autonomy than they have in actuality”, (3) “a state with autonomous communities like in actuality”, (4) “a state in which the autonomous communities have more autonomy than they have in actuality”, and (5) “a state that recognizes the possibility for autonomous communities to convert into independent states”.

⁶The (translated) question reads: “Which of the following phrases would you say best expresses your feelings?” The answer options vary based on the respondent’s autonomous community, inserting the relevant denonym for said autonomous community in each of the answer options. For illustrative purposes, we translate the question as a Catalan respondent would read it. The options are: (1) “I feel solely Spanish”, (2) “I feel more Spanish than Catalan”, (3) “I feel equally Spanish as I do Catalan”, (4) “I feel more Catalan than Spanish”, and (5) “I feel solely Catalan”.

Opinions toward territorial organization



Personal national identification

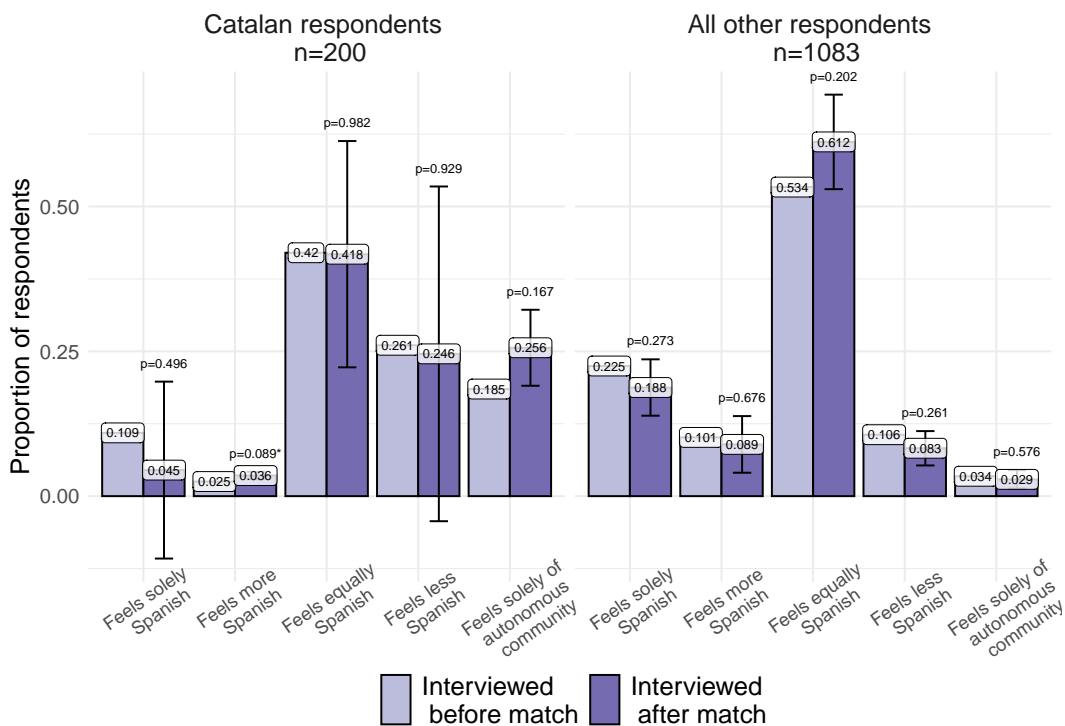


Figure 3: Alternative outcome results. 1-day bandwidth. All models include province \times match-date fixed effects. Standard errors are clustered at the match-date level, used to calculate 95% confidence intervals.

across bandwidths, as Table A7 and Figure A2 show. When it comes to personal national identification, however, the results are more equivocal. Catalan respondents are less likely to report that they feel solely Spanish and more likely to report that they feel solely of their autonomous community, but these effects are very imprecisely estimated. All other respondents do not seem to be moved by matches.

Tables A4 and A5 present these results in regression table form and include several alternative specifications. As with the main results, Tables A7 and A8 vary the bandwidth around 2, 3, 5, and 7 days, as well as including all respondents in each survey. The forest plots in Figure A4 show the results disaggregated by match, and Figure A6 presents event study plots.

4.3 Heterogeneity in treatment effects

Informed by the discussion in Section 2 and the results in Figures 1 and 3, we turn to investigate heterogeneity in treatment effects. Table A9 reveals little distinguishable heterogeneity in treatment effects based on victory by FC Barcelona, though Table A10 shows the anti-nationalist backlash effect among all other respondents identified in the main results is reduced when Real Madrid CF loses or draws. Unreported results show that Real Madrid CF victories exacerbate the treatment effects for the alternative outcome measures of territorial organization and nationalist sentiment, although these results should be treated with caution given the limited variation.⁷

Meanwhile, Table A11 demonstrates that the results are not driven by which party is in power. For Catalan respondents, the negative treatment effect found for PSOE vote intention is smaller when the PSOE is the incumbent party in government than when the PSOE is not in government, although this effect of -3.27 pp is not statistically significant (95% confidence interval: [8.41, 1.86]). There is no variation in the moderator for the surveys that contain the

⁷Evaluating heterogeneity by FC Barcelona victory is not possible given that two of the three matches ended in a draw and the third ended in a Real Madrid victory. The March 2013 match ended 1-2 to Real Madrid, while the December 2016 match ended 1-1, and the May 2018 match ended 2-2.

the alternative outcome measures corresponding to matches on March 2, 2013; December 3, 2016; and May 6, 2018 since the PP was in power from December 2011 through June 2018. As a result, we do not present heterogeneous effects for this set of outcomes.

That said, and turning away from heterogeneity at the match-level to focus on heterogeneity at the individual level, Tables [A12-A14](#) show how the results, especially the alternative outcome results are moderated by previous vote choice. In particular, the curious increase in positive responses for the full centralization outcome among Catalan respondents after a match is primarily driven by those respondents who previously voted for anti-nationalist parties. This suggests that Catalan respondents do not react monolithically: a portion of Catalan respondents may even be negatively primed against Catalan-independence-related political opinions as a function of FC Barcelona and Real Madrid matches.

5 Conclusion

This paper has shown that sporting events need not be connected to international competition to activate changes in public opinion. When rivalries at the subnational level are connected to existing political cleavages, the occurrences of clashes across the teams that represent these cleavages can change the way in which respondents to surveys feel about these very cleavages.

Catalan respondents interviewed just after FC Barcelona versus Real Madrid CF matches were more likely to report that they intend to vote for Catalan parties, while all other respondents were more likely to report that they intend to vote for right-wing anti-nationalist parties, although each of these effects are small. Moreover, Catalan respondents were more likely to favor a form of territorial organization for the Spanish state that allows autonomous communities to become independent. Interestingly, personal national identification is less affected by the matches. A possible avenue for future research is to identify how cross-national sporting events affect these within-nation divides. For example, success by the

Spanish national team, which is composed of players from across the country—including from FC Barcelona and Real Madrid CF can temper the very differences caused by matches across the two teams.⁸

Analyses of heterogeneity suggest that while the outcomes of matches can create some differences in treatment effects, the bulk of the effects created by FC Barcelona and Real Madrid matches comes from the meetings of the two sides irrespective of the outcome. Moreover, the results are not just due to updating opinions about the incumbent party.

While this paper documents a trend that is plausible for each individual match, the “treatment” of becoming emotionally invested in sports outcomes that coincide with subnational cleavages is much more complex. A path forward for this research agenda—which has primarily focused on short-term outcomes—is to study the potential long-run effects of these matches, although designs that can capture this may be more difficult to identify absent an explicit experiment.

⁸Another interesting case is that of Great Britain. In the Olympics, British athletes compete all together as a single country, while for FIFA competitions England, Scotland, Wales, and Northern Ireland compete separately.

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A.1 Additional covariate balance results

A.1.1 Covariate balance, varying bandwidth

	Catalans (2-day bandwidth)	All others	Catalans (3-day bandwidth)	All others	Catalans (5-day bandwidth)	All others	Catalans (7-day bandwidth)	All others	Catalans (Full sample)	All others
Previous vote: Catalan	0.874	0.73	0.843	0.941	0.723	0.513	0.622	0.504	0.916	0.519
Previous vote: Anti-nationalist parties	0.074*	0.533	0.408	0.847	0.728	0.169	0.996	0.154	0.767	0.176
Previous vote: Other nationalist parties	0.35	0.589	0.862	0.14	0.851	0.066*	0.805	0.047**	0.822	0.065*
Previous vote: PSOE	0.246	0.108	0.364	0.285	0.585	0.317	0.657	0.322	0.568	0.28
Previous vote: PP	0.195	0.801	0.029**	0.865	0.033**	0.857	0.051*	0.528	0.064*	0.447
Previous vote: All other parties	0.683	0.11	0.982	0.247	0.927	0.224	0.976	0.212	0.994	0.176
Previous vote: Did not vote	0.708	0.332	0.791	0.533	0.861	0.531	0.889	0.572	0.884	0.59
Previous vote: Don't know/no answer	0.932	0.907	0.74	0.977	0.652	0.837	0.608	0.686	0.589	0.602
Previous vote: Blank vote/null vote	0.715	0.25	0.755	0.355	0.96	0.272	0.879	0.314	0.814	0.325
Female	0.325	0.903	0.224	0.739	0.618	0.625	0.607	0.653	0.56	0.626
Age: 18-34	0.633	0.028**	0.38	0.036**	0.33	0.026**	0.302	0.022**	0.316	0.017**
Age: 35-64	0.691	0.335	0.299	0.271	0.281	0.219	0.279	0.224	0.316	0.225
Age: 65-99	0.696	0.103	0.596	0.432	0.486	0.809	0.432	0.749	0.43	0.733
Education: None	0.675	0.029**	0.723	0.066*	0.586	0.281	0.532	0.268	0.532	0.293
Education: Primary	0.088*	0.157	0.167	0.831	0.467	0.987	0.502	0.94	0.622	0.892
Education: Secondary	0.621	0.804	0.804	0.799	0.921	0.775	0.937	0.882	0.876	0.775
Education: University	0.331	0.716	0.433	0.902	0.475	0.643	0.492	0.643	0.514	0.686
Education: Other	0.246	0.543	0.184	0.643	0.274	0.096*	0.245	0.141	0.237	0.151
Municipality size: < 2,000	0.147	0.346	0.078*	0.29	0.148	0.52	0.086*	0.803	0.098*	0.498
Municipality size: 2,000 - 10,000	0.614	0.392	0.491	0.626	0.99	0.772	0.959	0.774	0.88	0.861
Municipality size: 10,000 - 50,000	0.841	0.386	0.746	0.25	0.901	0.294	0.865	0.217	0.919	0.285
Municipality size: 50,000 - 100,000	0.319	0.918	0.42	0.734	0.525	0.443	0.531	0.58	0.573	0.727
Municipality size: 100,000 - 400,000	0.909	0.721	0.988	0.407	0.869	0.333	0.86	0.131	0.81	0.176
Municipality size: 400,000 - 1,000,000		0.17		0.149		0.549		0.647		0.454
Municipality size: > 1,000,000	0.756	0.797	0.935	0.742	0.734	0.778	0.63	0.799	0.657	0.767
Religion: Catholic	0.838	0.198	0.627	0.087*	0.291	0.711	0.308	0.604	0.398	0.554
Religion: Atheist/agnostic	0.866	0.072*	0.661	0.018**	0.351	0.264	0.361	0.191	0.495	0.145
Religion: Other	0.644	0.691	0.606	0.82	0.359	0.545	0.339	0.572	0.33	0.57
Religion: Doesn't answer/doesn't know	0.517	0.989	0.441	0.425	0.4	0.226	0.372	0.254	0.436	0.171

Table A1: Covariate balance, varying bandwidth size. Values in each numeric cell are p-values.

A.1.2 Covariate balance, sorted p-values

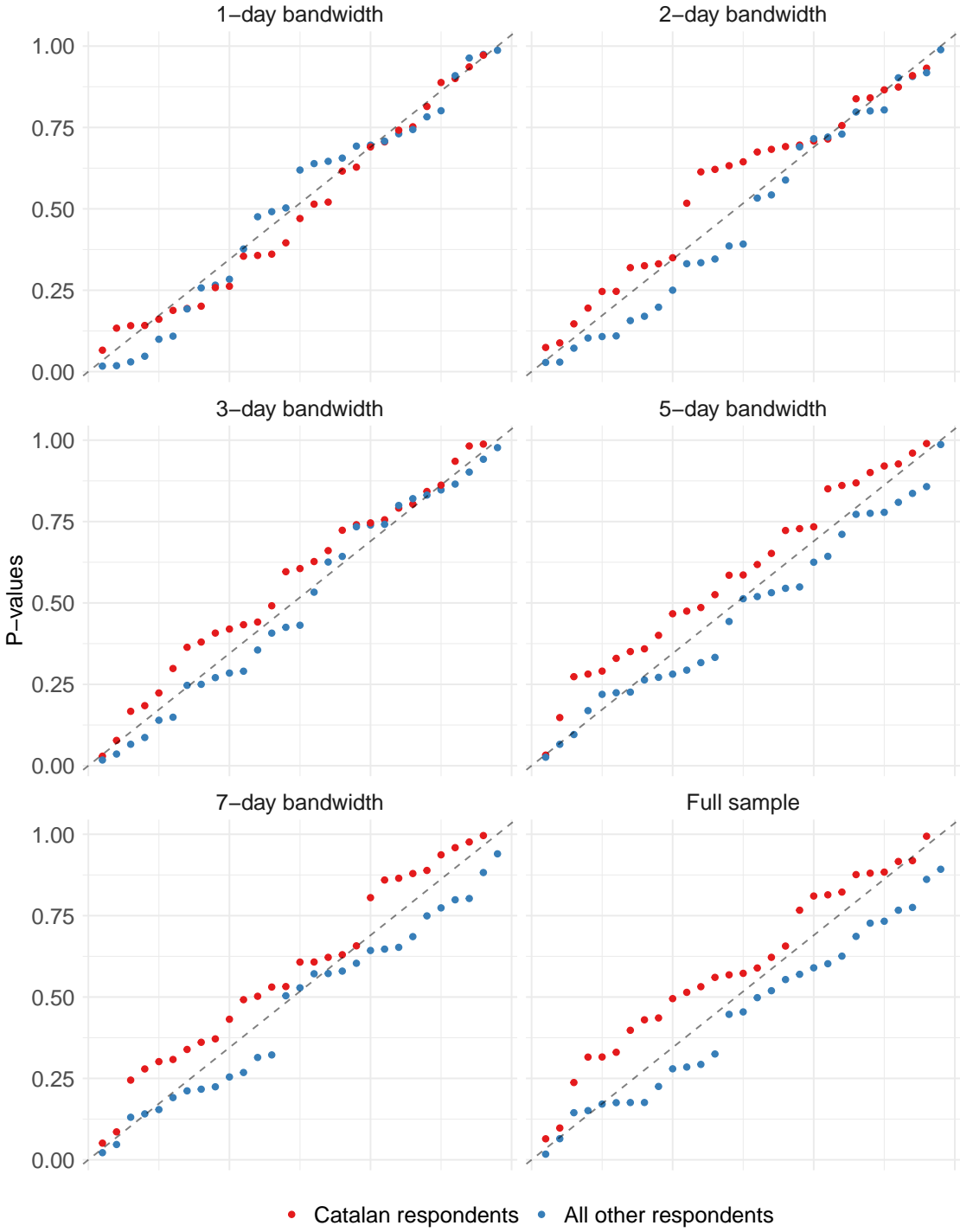


Figure A1: Covariate balance, sorted p-values.

A.2 Parties classification

CIS Answer Choice	Party name	Classification
AIC	Agrupaciones Independientes de Canarias	Other nationalist parties
Amaiur	Amaiur	Other nationalist parties
BNG	Bloque Nacionalista Galego	Other nationalist parties
CC	Coalición Canaria	Other nationalist parties
CC-PNC	Coalición Canaria-Partido Nacionalista Canario	Other nationalist parties
CCa-NC	Coalición Canaria-Nueva Canaria	Other nationalist parties
CCa-PNC	Coalición Canaria-Partido Nacionalista Canario	Other nationalist parties
CDS	Centro Democrático y Social	All other parties
CHA	Chunta Aragonesista	Other nationalist parties
CiU	Convergència i Unió	Catalan parties
Ciudadanos	Ciudadanos	Anti-nationalist parties
Compromís	Compromís	Other nationalist parties
Compromís Equo	Compromís Equo	Other nationalist parties
Compromís-Podemos	Compromís-Podemos	All other parties
Convergència (Democràcia i Llibertat)	Convergència (Democràcia i Llibertat)	Catalan parties
CUP	Candidatura d'Unitat Popular	Catalan parties
EA	Eusko Alkartasuna	Other nationalist parties
EA-EUE	Eusko Alkartasuna-Euskal Ezkerra	Other nationalist parties
EAJ-PNV	Euzko Alderdi Jeltzalea-Partido Nacionalista Vasco	Other nationalist parties
EE	Euskadiko Ezkerra	Other nationalist parties
EH Bildu	Euskal Herria Bildu	Other nationalist parties
En blanco	Voto en blanco	Blank vote/null vote
En Comú Podem	En Comú Podem	All other parties
En Común-Unidas Podemos	En Común-Unidas Podemos	All other parties
En Marea	En Marea	Other nationalist parties
ERC	Esquerra Republicana de Catalunya	Catalan parties
Geroa Bai	Geroa Bai	Other nationalist parties
HB	Herrri Batasuna	Other nationalist parties
IU	Izquierda Unida	All other parties
IU (ICV en Cataluña)	Izquierda Unida (Iniciativa per Catalunya Verds)	All other parties
IU (Unidad Popular)	Izquierda Unida (Unidad Popular)	All other parties
JxCat	Junts per Catalunya	Catalan parties
Más País	Más País	All other parties
Més Compromís	Més Compromís	Other nationalist parties
N.C.	No contesta	Don't know/no answer
N.S.	No sabe	Don't know/no answer
NA+	Navarra Suma	Anti-nationalist parties
NaBai	Nafarroa Bai	Other nationalist parties
Navarra Suma (UPN+PP+C's)	Navarra Suma (Unión del Pueblo Navarro + Partido Popular + Ciudadanos)	Anti-nationalist parties
Ninguno	Ninguno	Will not vote
No sabe todavía	No sabe todavía	Don't know/no answer
No votaría	No votaría	Will not vote
Nueva Canarias	Nueva Canarias	Other nationalist parties
Otro	Otro	All other parties
Otro de derechas	Otro de derechas	All other parties
Otro de izquierdas	Otro de izquierdas	All other parties
Otro partido	Otro partido	All other parties
Otros partidos	Otros partidos	All other parties
PA	Partido Andalucista	Other nationalist parties
PACMA	Partido Animalista Contra el Maltrato Animal	All other parties
PAR	Partido Aragonés	Other nationalist parties
PDeCAT	Partit Demòcrata Europeu Català	Catalan parties
PDeCAT (JxCAT)	Partit Demòcrata Europeu Català (Junts per Catalunya)	Catalan parties
PNV	Partido Nacionalista Vasco	Other nationalist parties
Podemos	Podemos	All other parties
PP	Partido Popular	PP
PRC	Partido Regionalista de Cantabria	Other nationalist parties
PSOE	Partido Socialista Obrero Español	PSOE
Teruel Existe	Teruel Existe	All other parties
Unidas Podemos	Unidas Podemos	All other parties
Unidos Podemos	Unidos Podemos	All other parties
UPN	Unión del Pueblo Navarro	Anti-nationalist parties
UPyD	Unión, Progreso, y Democracia	Anti-nationalist parties
UV	Union Valenciana	Other nationalist parties
Voto nulo	Voto nulo	Blank vote/null vote
VOX	VOX	Anti-nationalist parties

Table A2: Parties classification.

A.3 Results in regression table form

A.3.1 Main results

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Vote for Catalan parties						
Interviewed after match	0.020 (0.020)	0.000 (0.001)	0.010 (0.016)	0.000 (0.001)	0.023 (0.016)	0.000 (0.001)
R ²	0.11	0.05	0.42	0.12	0.39	0.12
Control group outcome mean	0.191	0.001	0.192	0.001	0.191	0.001
Control group outcome std. dev.	0.393	0.036	0.394	0.037	0.393	0.036
Panel B: Vote for anti-nationalist parties						
Interviewed after match	-0.006 (0.011)	0.015** (0.006)	0.005 (0.011)	0.012** (0.004)	0.002 (0.011)	0.014** (0.006)
R ²	0.08	0.16	0.37	0.32	0.37	0.3
Control group outcome mean	0.028	0.073	0.027	0.073	0.028	0.073
Control group outcome std. dev.	0.165	0.26	0.162	0.261	0.165	0.26
Panel C: Vote for other nationalist parties						
Interviewed after match	0.005 (0.003)	-0.001 (0.005)	0.002 (0.003)	0.000 (0.004)	0.002 (0.002)	-0.002 (0.004)
R ²	0.04	0.23	0.23	0.4	0.22	0.39
Control group outcome mean	0.003	0.032	0.003	0.032	0.003	0.032
Control group outcome std. dev.	0.058	0.176	0.058	0.175	0.058	0.176
Panel D: Vote for PSOE						
Interviewed after match	-0.044*** (0.014)	-0.007 (0.014)	-0.066*** (0.016)	-0.008 (0.013)	-0.054*** (0.013)	-0.012 (0.014)
R ²	0.14	0.15	0.39	0.44	0.37	0.43
Control group outcome mean	0.234	0.265	0.236	0.263	0.234	0.265
Control group outcome std. dev.	0.424	0.441	0.425	0.441	0.424	0.441
Panel E: Vote for PP						
Interviewed after match	0.009 (0.018)	0.001 (0.009)	0.012 (0.013)	0.000 (0.006)	0.009 (0.012)	-0.001 (0.007)
R ²	0.07	0.12	0.37	0.41	0.36	0.39
Control group outcome mean	0.061	0.17	0.062	0.169	0.061	0.17
Control group outcome std. dev.	0.24	0.376	0.241	0.375	0.24	0.376
Panel F: Vote for all other parties						
Interviewed after match	-0.006 (0.017)	-0.001 (0.011)	0.003 (0.015)	-0.004 (0.008)	-0.003 (0.017)	-0.003 (0.008)
R ²	0.06	0.09	0.27	0.32	0.25	0.31
Control group outcome mean	0.113	0.088	0.114	0.089	0.113	0.088
Control group outcome std. dev.	0.316	0.284	0.318	0.285	0.316	0.284
Panel G: Will not vote						
Interviewed after match	0.015 (0.019)	-0.007 (0.011)	0.025 (0.023)	-0.003 (0.012)	0.020 (0.020)	-0.007 (0.013)
R ²	0.1	0.12	0.24	0.24	0.19	0.2
Control group outcome mean	0.151	0.141	0.147	0.142	0.151	0.141
Control group outcome std. dev.	0.358	0.348	0.354	0.349	0.358	0.348
Panel H: Don't know/no answer						
Interviewed after match	0.010 (0.014)	0.014* (0.008)	0.013 (0.014)	0.018* (0.009)	0.011 (0.015)	0.017* (0.009)
R ²	0.1	0.14	0.2	0.22	0.19	0.21
Observations	1,452	8,382	1,438	8,178	1,452	8,382
Control group outcome mean	0.049	0.068	0.048	0.067	0.049	0.068
Control group outcome std. dev.	0.216	0.252	0.215	0.251	0.216	0.252
Panel I: Blank vote/null vote						
Interviewed after match	-0.003 (0.009)	-0.013** (0.005)	-0.004 (0.010)	-0.016*** (0.005)	-0.001 (0.009)	-0.015*** (0.004)
R ²	0.06	0.08	0.12	0.19	0.11	0.18
Control group outcome mean	0.033	0.033	0.034	0.034	0.033	0.033
Control group outcome std. dev.	0.18	0.178	0.181	0.18	0.18	0.178
Observations	1,452	8,382	1,438	8,178	1,452	8,382
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A3: Main results.

A.3.2 Territorial organization results

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Prefers sole central government						
Interviewed after match	0.040*** (0.001)	-0.002 (0.022)	0.066 (0.023)	0.021 (0.025)	0.044** (0.008)	-0.002 (0.022)
R ²	0.16	0.14	0.27	0.19	0.17	0.14
Control group outcome mean	0.067	0.25	0.067	0.25	0.067	0.25
Control group outcome std. dev.	0.25	0.433	0.251	0.434	0.25	0.433
Panel B: Less decentralization (give less autonomy to autonomous communities)						
Interviewed after match	0.008 (0.039)	-0.019 (0.009)	0.031 (0.017)	-0.030 (0.013)	0.010 (0.034)	-0.019 (0.009)
R ²	0.02	0.14	0.13	0.21	0.03	0.14
Control group outcome mean	0.042	0.182	0.042	0.183	0.042	0.182
Control group outcome std. dev.	0.201	0.386	0.201	0.387	0.201	0.386
Panel C: Maintain status quo						
Interviewed after match	-0.132 (0.093)	-0.010 (0.049)	-0.137 (0.143)	-0.045 (0.069)	-0.119 (0.129)	-0.011 (0.048)
R ²	0.12	0.22	0.31	0.29	0.2	0.22
Control group outcome mean	0.275	0.417	0.277	0.418	0.275	0.417
Control group outcome std. dev.	0.448	0.493	0.45	0.494	0.448	0.493
Panel D: More decentralization (give more autonomy to autonomous communities)						
Interviewed after match	-0.060 (0.023)	0.048 (0.062)	-0.093 (0.138)	0.066 (0.045)	-0.055** (0.013)	0.047 (0.062)
R ²	0.04	0.14	0.18	0.19	0.06	0.14
Control group outcome mean	0.3	0.106	0.294	0.102	0.3	0.106
Control group outcome std. dev.	0.46	0.308	0.458	0.303	0.46	0.308
Panel E: Prefers a state which allows independence for autonomous communities						
Interviewed after match	0.144** (0.029)	-0.017 (0.012)	0.134*** (0.013)	-0.012 (0.009)	0.120 (0.090)	-0.014 (0.013)
R ²	0.12	0.16	0.45	0.24	0.33	0.17
Control group outcome mean	0.317	0.046	0.319	0.047	0.317	0.046
Control group outcome std. dev.	0.467	0.209	0.468	0.211	0.467	0.209
Observations	201	1,021	199	1,001	201	1,021
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A4: Alternative outcome results, opinions toward territorial organization.

A.3.3 Personal national identification results

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Respondent feels solely Spanish						
Interviewed after match	-0.064 (0.078)	-0.037 (0.025)	-0.099 (0.046)	-0.049** (0.006)	-0.060 (0.065)	-0.039 (0.024)
R ²	0.13	0.24	0.29	0.27	0.15	0.24
Control group outcome mean	0.109	0.225	0.11	0.226	0.109	0.225
Control group outcome std. dev.	0.313	0.418	0.314	0.419	0.313	0.418
Panel B: Respondent feels more Spanish than of autonomous community						
Interviewed after match	0.010* (0.003)	-0.012 (0.025)	0.010 (0.013)	-0.003 (0.028)	0.013* (0.003)	-0.012 (0.025)
R ²	0.14	0.15	0.24	0.17	0.15	0.15
Control group outcome mean	0.025	0.101	0.025	0.102	0.025	0.101
Control group outcome std. dev.	0.157	0.302	0.158	0.303	0.157	0.302
Panel C: Respondent feels equally Spanish as of autonomous community						
Interviewed after match	-0.002 (0.100)	0.078 (0.042)	0.076*** (0.007)	0.075 (0.027)	0.015 (0.044)	0.077 (0.042)
R ²	0.05	0.18	0.32	0.2	0.19	0.18
Control group outcome mean	0.42	0.534	0.424	0.533	0.42	0.534
Control group outcome std. dev.	0.496	0.499	0.496	0.499	0.496	0.499
Panel D: Respondent feels less Spanish than of autonomous community						
Interviewed after match	-0.015 (0.147)	-0.023 (0.015)	-0.026* (0.008)	-0.013 (0.007)	-0.018 (0.132)	-0.024 (0.015)
R ²	0.02	0.11	0.14	0.14	0.03	0.11
Control group outcome mean	0.261	0.106	0.254	0.104	0.261	0.106
Control group outcome std. dev.	0.441	0.308	0.437	0.305	0.441	0.308
Panel E: Respondent feels solely of autonomous community						
Interviewed after match	0.071 (0.033)	-0.005 (0.008)	0.038 (0.058)	-0.010 (0.010)	0.051 (0.027)	-0.002 (0.009)
R ²	0.07	0.2	0.41	0.28	0.34	0.23
Control group outcome mean	0.185	0.034	0.186	0.035	0.185	0.034
Control group outcome std. dev.	0.39	0.182	0.391	0.184	0.39	0.182
Observations	200	1,083	198	1,064	200	1,083
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A5: Alternative outcome results, personal national identification.

A.4 Additional bandwidth results

A.4.1 Main results, varying bandwidth

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)	Catalan respondents (7)	All other respondents (8)	Catalan respondents (9)	All other respondents (10)
Panel A: Vote for Catalan parties										
Interviewed after match	0.017 (0.013)	-0.001** (0.000)	0.019* (0.011)	0.000 (0.000)	0.021** (0.009)	-0.001** (0.000)	0.022** (0.009)	-0.001** (0.000)	0.018* (0.009)	-0.001* (0.000)
R ²	0.08	0.04	0.08	0.03	0.09	0.03	0.09	0.02	0.08	0.02
Control group outcome mean	0.182	0.001	0.183	0.001	0.178	0.001	0.181	0.001	0.205	0.001
Control group outcome std. dev.	0.386	0.032	0.387	0.029	0.383	0.032	0.385	0.032	0.404	0.031
Panel B: Vote for anti-nationalist parties										
Interviewed after match	-0.011 (0.007)	0.008*** (0.003)	-0.007 (0.006)	0.005** (0.002)	-0.005 (0.008)	-0.001 (0.004)	-0.004 (0.007)	0.000 (0.004)	-0.003 (0.007)	0.000 (0.004)
R ²	0.08	0.13	0.07	0.12	0.06	0.11	0.06	0.1	0.04	0.08
Control group outcome mean	0.031	0.069	0.03	0.067	0.037	0.081	0.038	0.085	0.041	0.098
Control group outcome std. dev.	0.172	0.254	0.171	0.249	0.188	0.273	0.191	0.279	0.197	0.298
Panel C: Vote for other-nationalist parties										
Interviewed after match	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	0.001 (0.003)	0.000 (0.002)	0.001 (0.003)	-0.001 (0.001)	0.001 (0.003)	0.000 (0.001)	0.001 (0.003)
R ²	0.02	0.2	0.02	0.2	0.02	0.21	0.02	0.21	0.02	0.2
Control group outcome mean	0.003	0.028	0.003	0.028	0.003	0.029	0.003	0.03	0.003	0.032
Control group outcome std. dev.	0.055	0.164	0.054	0.164	0.054	0.167	0.056	0.171	0.054	0.175
Panel D: Vote for PSOE										
Interviewed after match	0.005 (0.017)	-0.016* (0.007)	-0.003 (0.012)	-0.013* (0.007)	-0.009 (0.013)	-0.016** (0.006)	-0.011 (0.013)	-0.015** (0.006)	-0.009 (0.013)	-0.016** (0.006)
R ²	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.1	0.09
Control group outcome mean	0.241	0.264	0.237	0.263	0.242	0.26	0.241	0.259	0.232	0.259
Control group outcome std. dev.	0.428	0.441	0.425	0.44	0.428	0.439	0.428	0.438	0.422	0.438
Panel E: Vote for PP										
Interviewed after match	0.000 (0.009)	-0.002 (0.005)	-0.006 (0.009)	-0.001 (0.005)	-0.006 (0.009)	-0.001 (0.004)	-0.005 (0.008)	-0.003 (0.004)	-0.005 (0.008)	-0.003 (0.004)
R ²	0.04	0.12	0.04	0.12	0.04	0.11	0.04	0.1	0.04	0.09
Control group outcome mean	0.067	0.178	0.068	0.182	0.064	0.181	0.062	0.18	0.059	0.177
Control group outcome std. dev.	0.251	0.382	0.251	0.386	0.244	0.385	0.241	0.384	0.236	0.382
Panel F: Vote for all other parties										
Interviewed after match	-0.023 (0.013)	0.006 (0.007)	-0.014 (0.013)	0.005 (0.005)	-0.012 (0.011)	0.008 (0.005)	-0.014 (0.011)	0.008 (0.005)	-0.013 (0.011)	0.008 (0.005)
R ²	0.06	0.07	0.06	0.07	0.06	0.06	0.06	0.06	0.05	0.05
Control group outcome mean	0.127	0.091	0.123	0.088	0.128	0.09	0.132	0.096	0.132	0.104
Control group outcome std. dev.	0.333	0.287	0.328	0.283	0.334	0.286	0.339	0.294	0.338	0.305
Panel G: Will not vote										
Interviewed after match	0.005 (0.012)	-0.003 (0.005)	0.009 (0.011)	-0.004 (0.004)	0.010 (0.009)	0.001 (0.004)	0.009 (0.009)	0.002 (0.004)	0.008 (0.009)	0.004 (0.005)
R ²	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.06	0.07
Control group outcome mean	0.15	0.134	0.141	0.136	0.135	0.135	0.135	0.135	0.135	0.135
Control group outcome std. dev.	0.357	0.341	0.349	0.343	0.341	0.342	0.342	0.342	0.342	0.341
Panel H: Don't know/no answer										
Interviewed after match	0.007 (0.009)	0.010 (0.006)	0.004 (0.010)	0.008 (0.006)	0.002 (0.010)	0.008 (0.005)	0.002 (0.009)	0.008 (0.005)	0.004 (0.009)	0.009 (0.006)
R ²	0.08	0.13	0.07	0.12	0.06	0.1	0.05	0.09	0.05	0.07
Control group outcome mean	0.04	0.068	0.039	0.065	0.041	0.062	0.043	0.064	0.049	0.066
Control group outcome std. dev.	0.197	0.251	0.194	0.247	0.199	0.241	0.203	0.244	0.215	0.248
Panel I: Blank vote/null vote										
Interviewed after match	-0.001 (0.005)	-0.001 (0.002)	-0.003 (0.004)	-0.001 (0.002)	-0.001 (0.005)	0.000 (0.002)	0.000 (0.005)	0.000 (0.002)	0.000 (0.004)	0.000 (0.002)
R ²	0.05	0.06	0.04	0.05	0.04	0.04	0.04	0.04	0.03	0.03
Control group outcome mean	0.037	0.034	0.039	0.035	0.039	0.037	0.038	0.036	0.036	0.037
Control group outcome std. dev.	0.189	0.181	0.194	0.183	0.194	0.188	0.191	0.187	0.186	0.19
Observations	3,050	16,726	4,100	22,229	5,555	30,411	6,090	35,055	7,356	44,353
Bandwidth	2 days	2 days	3 days	3 days	5 days	5 days	7 days	7 days	Full sample	Full sample

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A6: Main results, varying bandwidth. All models contain match × province fixed effects.

A.4.2 Alternative outcome results, varying bandwidth (figure)

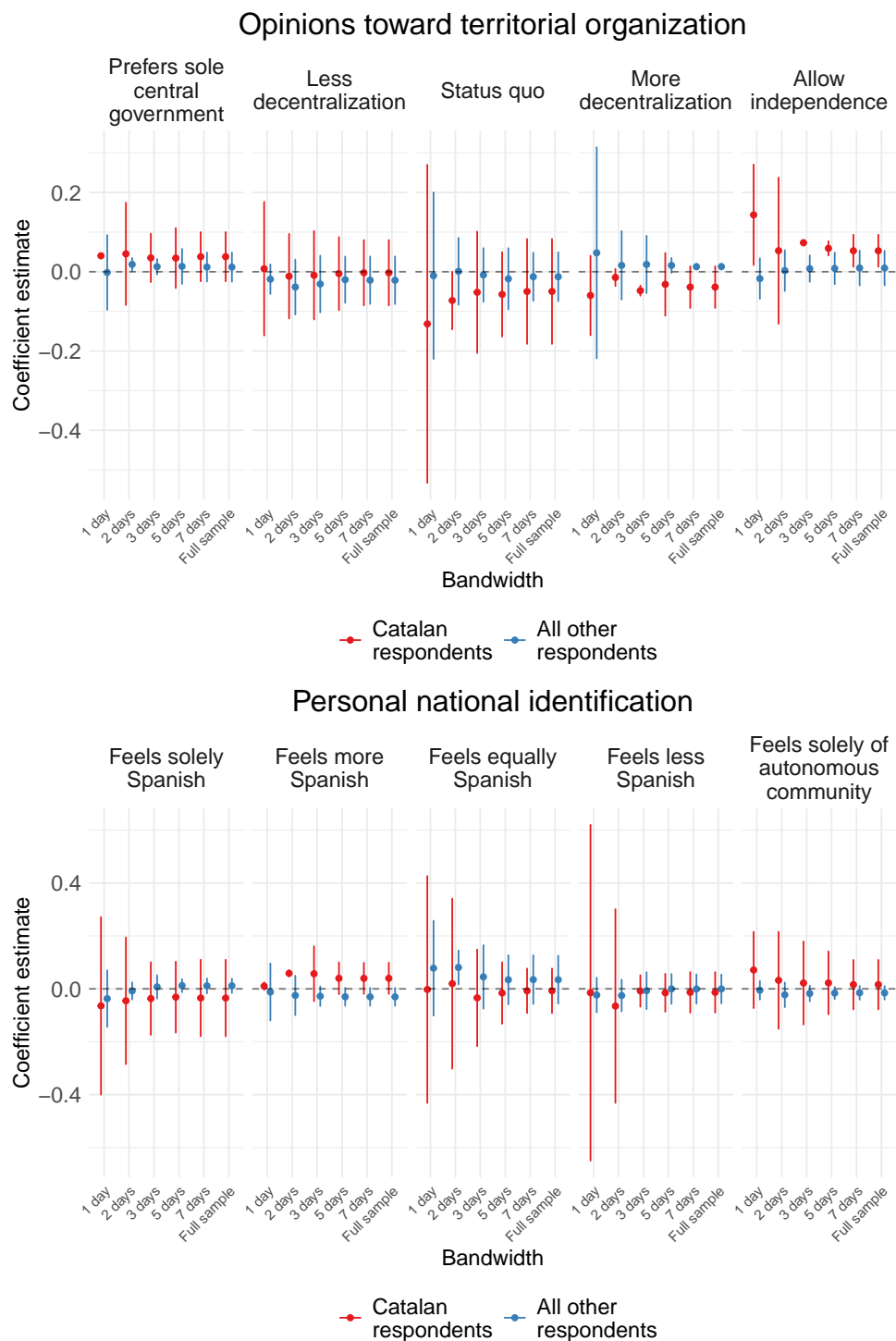


Figure A2: Alternative outcome results, varying bandwidth. All models include province \times match-date fixed effects. Standard errors are clustered at the match-date level, used to calculate 95% confidence intervals.

A.4.3 Territorial organization results, varying bandwidth

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)	Catalan respondents (7)	All other respondents (8)	Catalan respondents (9)	All other respondents (10)
Panel A: Prefers sole central government										
Interviewed after match	0.045 (0.030)	0.018** (0.004)	0.035 (0.014)	0.013 (0.005)	0.035 (0.018)	0.013 (0.010)	0.038 (0.014)	0.012 (0.008)	0.038 (0.014)	0.012 (0.009)
R ²	0.05	0.12	0.03	0.11	0.03	0.09	0.03	0.09	0.03	0.09
Control group outcome mean	0.073	0.237	0.073	0.236	0.068	0.239	0.068	0.239	0.068	0.239
Control group outcome std. dev.	0.261	0.425	0.26	0.425	0.252	0.427	0.252	0.427	0.252	0.427
Panel B: Less decentralization (give less autonomy to autonomous communities)										
Interviewed after match	-0.011 (0.025)	-0.039 (0.016)	-0.009 (0.026)	-0.031 (0.017)	-0.005 (0.021)	-0.020 (0.014)	-0.003 (0.019)	-0.021 (0.014)	-0.003 (0.019)	-0.021 (0.014)
R ²	0.03	0.1	0.02	0.08	0.01	0.07	0.01	0.07	0.01	0.07
Control group outcome mean	0.031	0.155	0.027	0.154	0.029	0.144	0.029	0.144	0.029	0.144
Control group outcome std. dev.	0.174	0.362	0.162	0.361	0.169	0.351	0.169	0.351	0.169	0.351
Panel C: Maintain status quo										
Interviewed after match	-0.073* (0.017)	0.001 (0.020)	-0.052 (0.036)	-0.008 (0.016)	-0.057 (0.025)	-0.018 (0.018)	-0.050 (0.031)	-0.013 (0.014)	-0.050 (0.031)	-0.013 (0.014)
R ²	0.06	0.16	0.07	0.15	0.05	0.14	0.04	0.13	0.04	0.13
Control group outcome mean	0.26	0.439	0.279	0.445	0.274	0.452	0.274	0.452	0.274	0.452
Control group outcome std. dev.	0.44	0.496	0.449	0.497	0.446	0.498	0.446	0.498	0.446	0.498
Panel D: More decentralization (give more autonomy to autonomous communities)										
Interviewed after match	-0.014 (0.005)	0.016 (0.020)	-0.048*** (0.003)	0.018 (0.017)	-0.032 (0.018)	0.016* (0.004)	-0.039* (0.012)	0.013** (0.002)	-0.039* (0.012)	0.013** (0.002)
R ²	0.02	0.12	0.02	0.1	0.01	0.07	0.01	0.07	0.01	0.07
Control group outcome mean	0.286	0.12	0.294	0.12	0.285	0.12	0.285	0.12	0.285	0.12
Control group outcome std. dev.	0.453	0.326	0.456	0.325	0.452	0.325	0.452	0.325	0.452	0.325
Panel E: Prefers a state which allows independence for autonomous communities										
Interviewed after match	0.053 (0.043)	0.003 (0.012)	0.073*** (0.002)	0.008 (0.008)	0.059*** (0.004)	0.008 (0.009)	0.053** (0.009)	0.009 (0.010)	0.053** (0.009)	0.009 (0.010)
R ²	0.08	0.11	0.05	0.09	0.04	0.09	0.03	0.09	0.03	0.09
Control group outcome mean	0.349	0.049	0.328	0.045	0.344	0.045	0.344	0.045	0.344	0.045
Control group outcome std. dev.	0.478	0.216	0.47	0.207	0.476	0.207	0.476	0.207	0.476	0.207
Observations	433	2,287	621	3,064	909	4,372	987	5,063	987	5,109
Bandwidth	2 days	2 days	3 days	3 days	5 days	5 days	7 days	7 days	Full sample	Full sample

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A7: Alternative outcome results for opinions toward territorial organization, varying bandwidth. All models contain match × province fixed effects.

A.4.4 Personal national identification, varying bandwidth

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)	Catalan respondents (7)	All other respondents (8)	Catalan respondents (9)	All other respondents (10)
Panel A: Respondent feels solely Spansih										
Interviewed after match	-0.045 (0.056)	-0.008 (0.007)	-0.037 (0.032)	0.007 (0.010)	-0.031 (0.031)	0.012 (0.006)	-0.035 (0.034)	0.011 (0.006)	-0.035 (0.034)	0.011 (0.006)
R ²	0.04	0.19	0.03	0.19	0.02	0.18	0.02	0.18	0.02	0.18
Control group outcome mean	0.105	0.201	0.102	0.195	0.097	0.186	0.097	0.186	0.097	0.186
Control group outcome std. dev.	0.308	0.401	0.304	0.397	0.296	0.389	0.296	0.389	0.296	0.389
Panel B: Respondent feels more Spanish than of autonomous community										
Interviewed after match	0.059*** (0.003)	-0.025 (0.017)	0.057 (0.024)	-0.028* (0.009)	0.040 (0.014)	-0.030* (0.008)	0.040 (0.014)	-0.030* (0.008)	0.040 (0.014)	-0.030* (0.008)
R ²	0.04	0.08	0.03	0.08	0.02	0.09	0.02	0.09	0.02	0.09
Control group outcome mean	0.026	0.092	0.038	0.089	0.038	0.092	0.038	0.092	0.038	0.092
Control group outcome std. dev.	0.16	0.289	0.191	0.285	0.192	0.289	0.192	0.289	0.192	0.289
Panel C: Respondent feels equally Spanish as of automomous community										
Interviewed after match	0.020 (0.075)	0.081** (0.015)	-0.034 (0.042)	0.045 (0.028)	-0.016 (0.027)	0.034 (0.021)	-0.008 (0.019)	0.035 (0.021)	-0.008 (0.019)	0.035 (0.021)
R ²	0.03	0.13	0.03	0.12	0.02	0.11	0.02	0.11	0.02	0.11
Control group outcome mean	0.405	0.559	0.42	0.577	0.419	0.581	0.419	0.581	0.419	0.581
Control group outcome std. dev.	0.492	0.497	0.495	0.494	0.494	0.494	0.494	0.494	0.494	0.494
Panel D: Respondent feels less Spanish than of autonomous community										
Interviewed after match	-0.065 (0.085)	-0.025 (0.014)	-0.008 (0.014)	-0.007 (0.016)	-0.015 (0.017)	0.000 (0.013)	-0.013 (0.018)	-0.001 (0.013)	-0.013 (0.018)	0.000 (0.013)
R ²	0.02	0.1	0.02	0.09	0.02	0.09	0.02	0.08	0.02	0.08
Control group outcome mean	0.279	0.106	0.246	0.101	0.246	0.103	0.246	0.103	0.246	0.103
Control group outcome std. dev.	0.45	0.309	0.432	0.301	0.432	0.304	0.432	0.304	0.432	0.304
Panel E: Respondent feels solely of autonomous community										
Interviewed after match	0.032 (0.043)	-0.023 (0.011)	0.022 (0.036)	-0.018 (0.007)	0.022 (0.028)	-0.016* (0.005)	0.016 (0.022)	-0.015 (0.006)	0.016 (0.022)	-0.015 (0.006)
R ²	0.04	0.16	0.02	0.14	0.02	0.12	0.01	0.11	0.01	0.11
Control group outcome mean	0.184	0.042	0.193	0.038	0.199	0.038	0.199	0.038	0.199	0.038
Control group outcome std. dev.	0.389	0.2	0.396	0.192	0.4	0.191	0.4	0.191	0.4	0.191
Observations	432	2,429	625	3,241	915	4,625	993	5,338	993	5,385
Bandwidth	2 days	2 days	3 days	3 days	5 days	5 days	7 days	7 days	Full sample	Full sample

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A8: Alternative outcome results for personal national identification, varying bandwidth. All models contain match × province fixed effects.

A.5 Forest plots

A.5.1 Main results forest plot

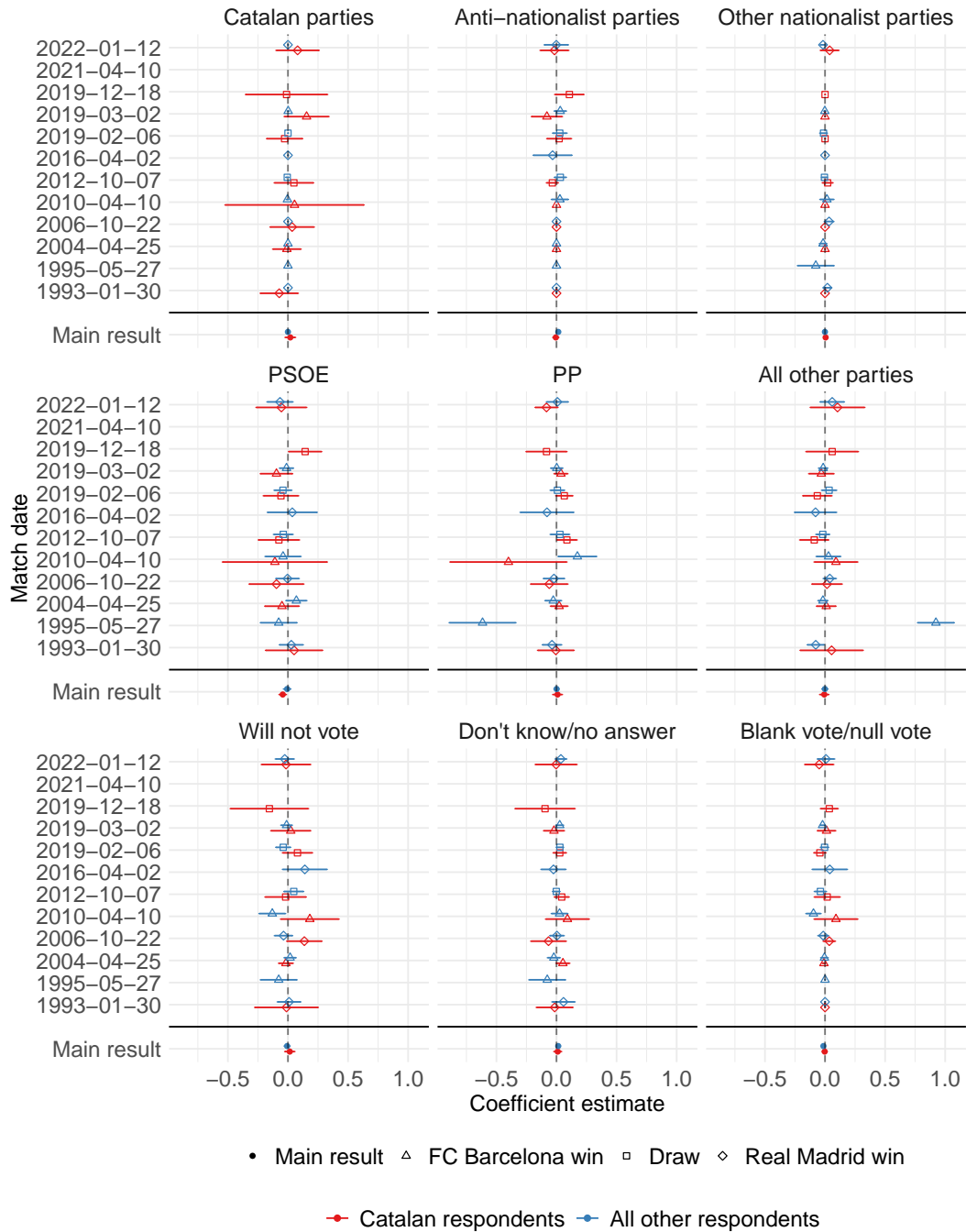


Figure A3: Forest plot for main results.

A.5.2 Alternative outcomes forest plot

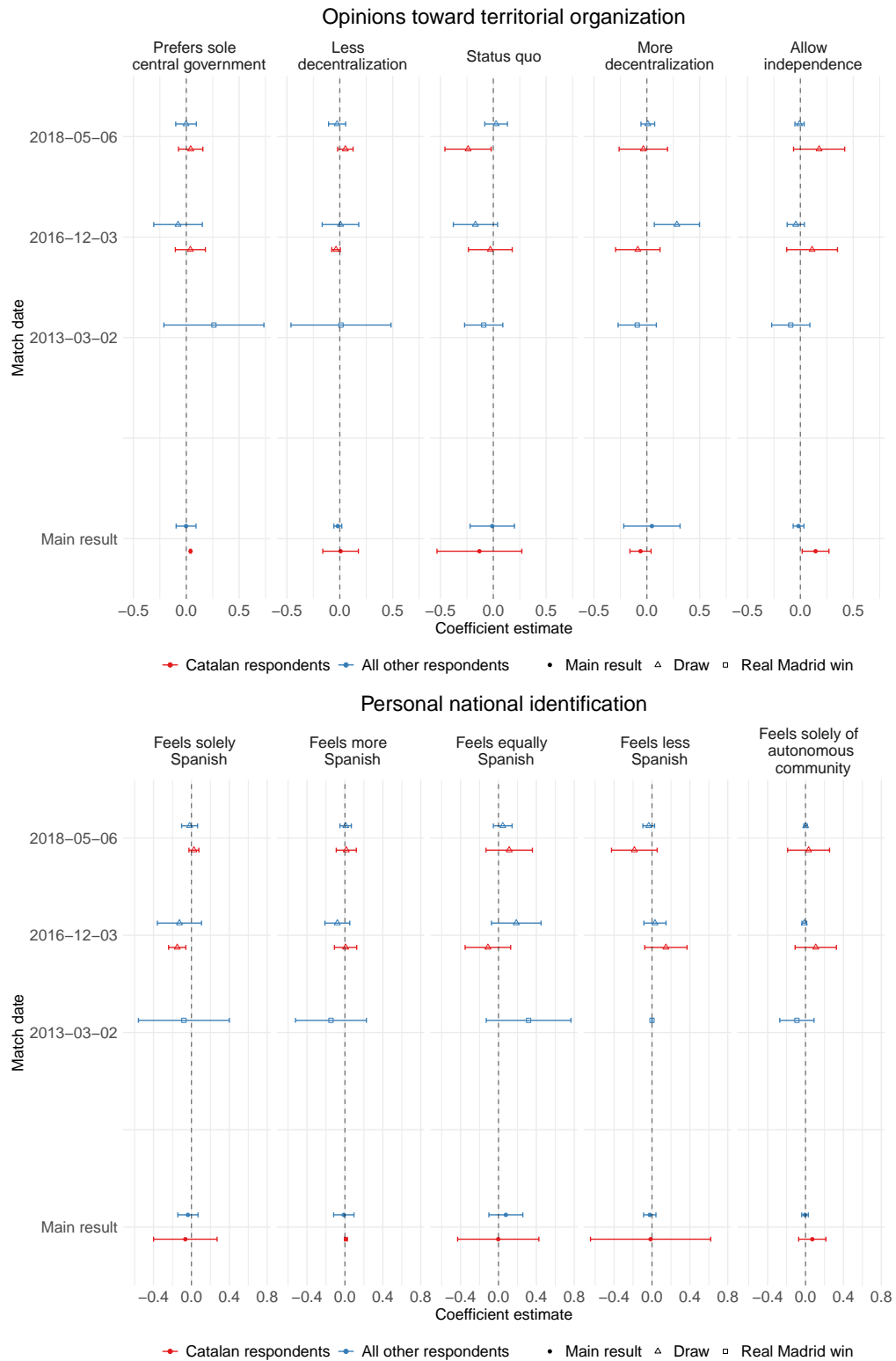


Figure A4: Forest plot for alternative outcome results.

A.6 Event study plots

A.6.1 Main results event study plot

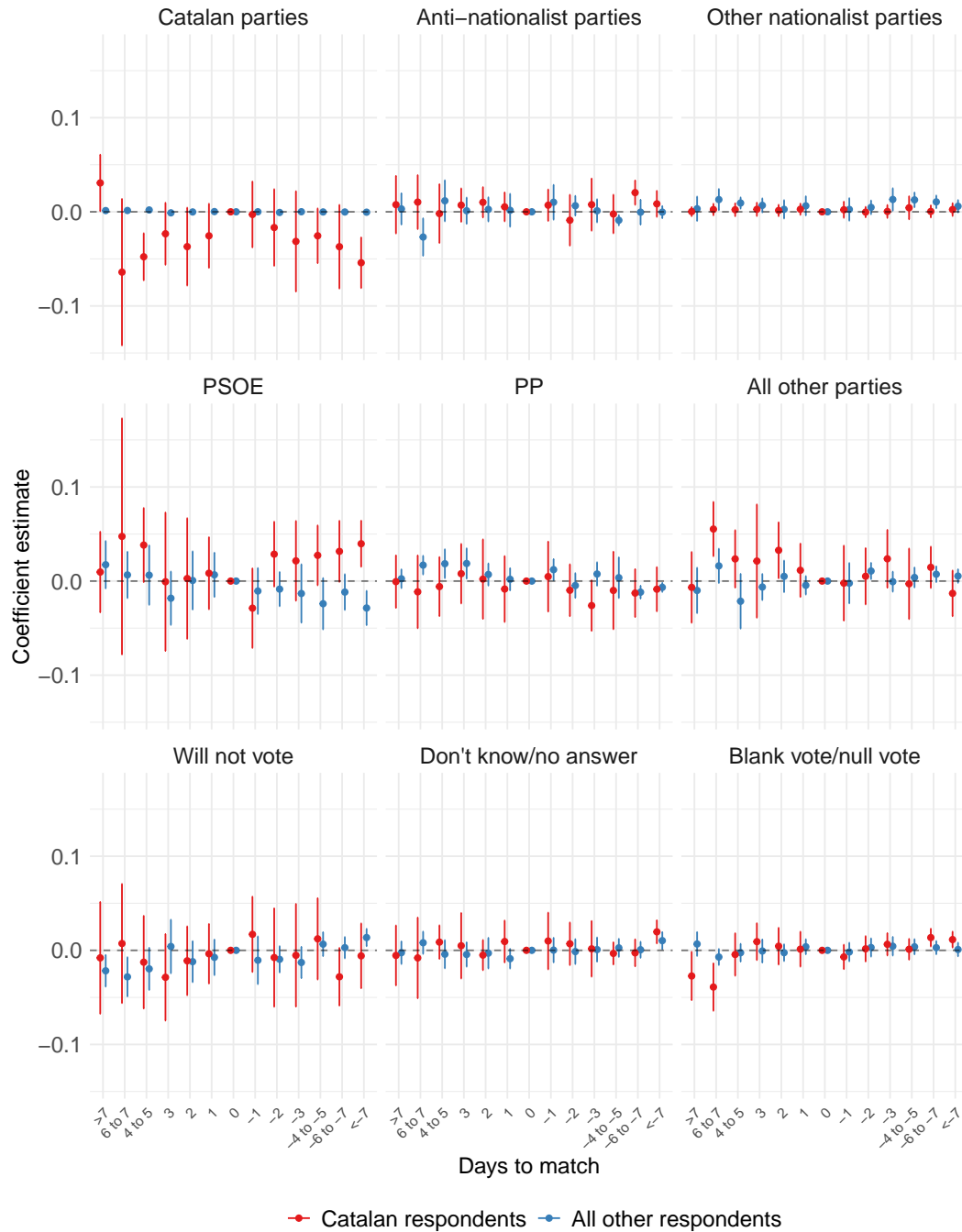


Figure A5: Event study plot for main results.

A.6.2 Alternative outcomes event study plot

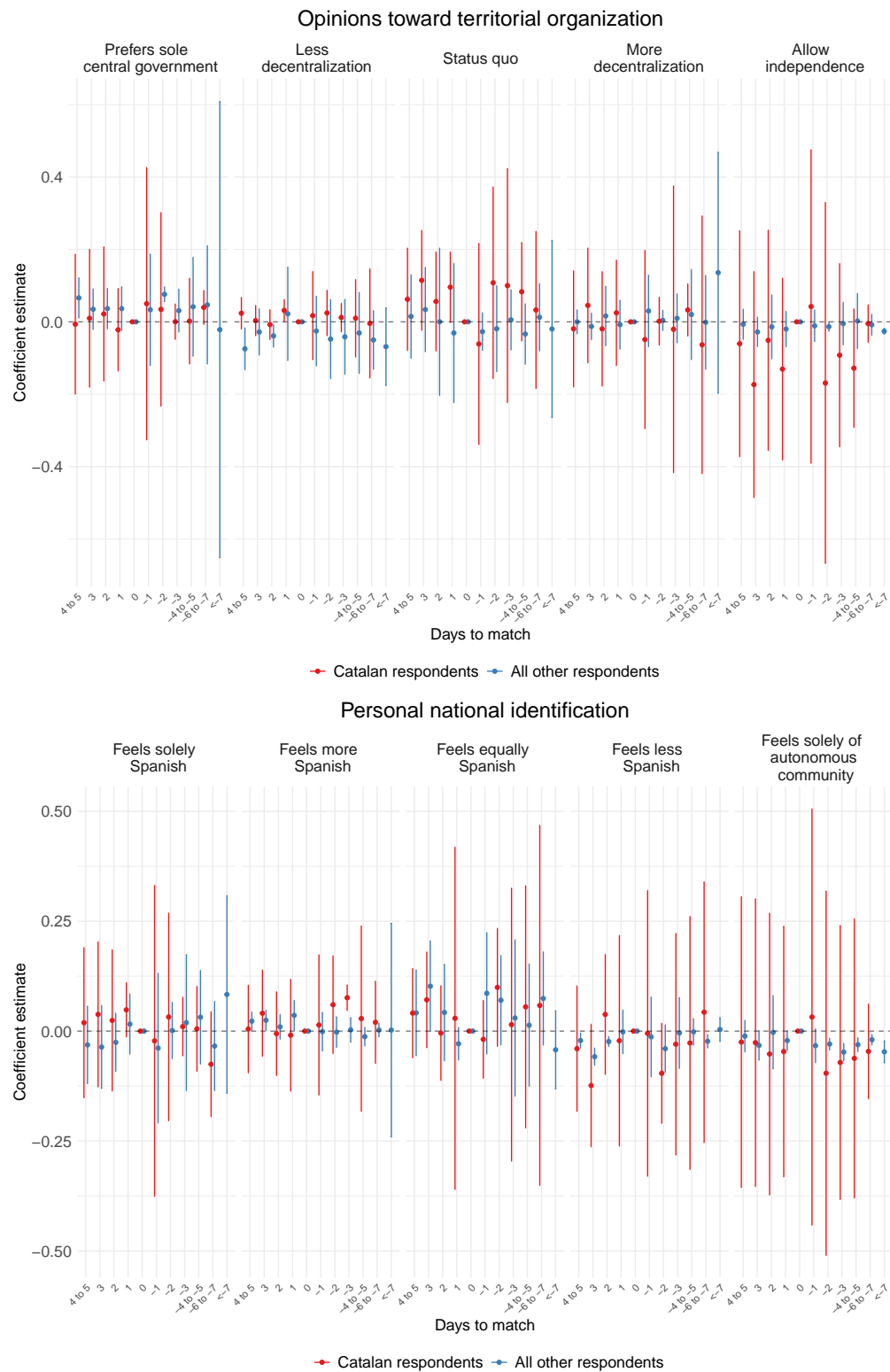


Figure A6: Event study plot for alternative outcome results.

A.7 Heterogeneous treatment effects

A.7.1 Heterogeneity by FC Barcelona victory

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Vote for Catalan parties						
Interviewed after match	0.007 (0.016)	-0.001 (0.001)	0.004 (0.021)	-0.001 (0.001)	0.014 (0.019)	-0.001 (0.001)
Interviewed after match × FC Barcelona victory	0.035 (0.053)	0.002 (0.001)	0.016 (0.040)	0.001 (0.001)	0.025 (0.033)	0.002 (0.002)
R ²	0.11	0.05	0.42	0.12	0.39	0.12
Panel B: Vote for anti-nationalist parties						
Interviewed after match	0.004 (0.011)	0.011 (0.007)	0.016 (0.012)	0.010* (0.006)	0.014 (0.011)	0.010 (0.006)
Interviewed after match × FC Barcelona victory	-0.028 (0.026)	0.009 (0.012)	-0.032 (0.022)	0.005 (0.010)	-0.034 (0.023)	0.011 (0.012)
R ²	0.08	0.16	0.37	0.32	0.37	0.3
Panel C: Vote for other nationalist parties						
Interviewed after match	0.008 (0.005)	0.002 (0.007)	0.003 (0.003)	-0.002 (0.006)	0.004 (0.004)	-0.002 (0.005)
Interviewed after match × FC Barcelona victory	-0.008 (0.005)	-0.008 (0.009)	-0.003 (0.003)	0.005 (0.006)	-0.004 (0.004)	0.001 (0.008)
R ²	0.04	0.23	0.23	0.4	0.22	0.39
Panel D: Vote for PSOE						
Interviewed after match	-0.032 (0.019)	-0.020 (0.011)	-0.058** (0.023)	-0.028*** (0.004)	-0.043** (0.016)	-0.034*** (0.005)
Interviewed after match × FC Barcelona victory	-0.035 (0.024)	0.032 (0.028)	-0.024 (0.033)	0.052** (0.021)	-0.033 (0.029)	0.057** (0.023)
R ²	0.14	0.15	0.39	0.44	0.37	0.43
Panel E: Vote for PP						
Interviewed after match	0.010 (0.025)	-0.002 (0.009)	0.003 (0.017)	0.004 (0.004)	0.005 (0.017)	0.003 (0.005)
Interviewed after match × FC Barcelona victory	-0.002 (0.034)	0.008 (0.021)	0.026 (0.023)	-0.009 (0.014)	0.013 (0.020)	-0.008 (0.014)
R ²	0.07	0.12	0.37	0.41	0.36	0.39
Panel F: Vote for all other parties						
Interviewed after match	-0.011 (0.024)	0.005 (0.016)	0.011 (0.023)	0.002 (0.011)	-0.005 (0.024)	0.003 (0.012)
Interviewed after match × FC Barcelona victory	0.012 (0.027)	-0.015 (0.017)	-0.022 (0.022)	-0.015 (0.011)	0.004 (0.027)	-0.014 (0.012)
R ²	0.06	0.09	0.27	0.32	0.25	0.31
Panel G: Will not vote						
Interviewed after match	0.021 (0.025)	-0.004 (0.015)	0.031 (0.028)	0.002 (0.018)	0.025 (0.025)	-0.001 (0.019)
Interviewed after match × FC Barcelona victory	-0.017 (0.031)	-0.008 (0.021)	-0.018 (0.040)	-0.014 (0.023)	-0.017 (0.034)	-0.015 (0.023)
R ²	0.1	0.12	0.24	0.24	0.19	0.2
Panel H: Don't know/no answer						
Interviewed after match	-0.001 (0.015)	0.017* (0.008)	-0.006 (0.014)	0.023** (0.010)	-0.004 (0.015)	0.022* (0.010)
Interviewed after match × FC Barcelona victory	0.034 (0.027)	-0.007 (0.017)	0.054* (0.026)	-0.011 (0.019)	0.042 (0.025)	-0.012 (0.018)
R ²	0.1	0.14	0.21	0.22	0.19	0.21
Panel I: Blank vote/null vote						
Interviewed after match	-0.005 (0.013)	-0.008 (0.007)	-0.005 (0.015)	-0.011* (0.006)	-0.003 (0.013)	-0.010 (0.006)
Interviewed after match × FC Barcelona victory	0.007 (0.016)	-0.013 (0.011)	0.003 (0.018)	-0.014 (0.009)	0.006 (0.017)	-0.012 (0.009)
R ²	0.06	0.08	0.12	0.19	0.11	0.18
Observations	1,452	8,382	1,438	8,178	1,452	8,382
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A9: Heterogeneity by FC Barcelona victory.

A.7.2 Heterogeneity by Real Madrid CF victory

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Vote for Catalan parties						
Interviewed after match	0.019 (0.023)	-0.001 (0.001)	0.002 (0.019)	0.000 (0.001)	0.020 (0.019)	-0.001 (0.001)
Interviewed after match × Real Madrid CF victory	0.000 (0.041)	0.001 (0.001)	0.040 (0.035)	0.000 (0.001)	0.012 (0.028)	0.001 (0.001)
R ²	0.11	0.05	0.42	0.12	0.39	0.12
Panel B: Vote for anti-nationalist parties						
Interviewed after match	-0.006 (0.014)	0.020*** (0.006)	0.007 (0.014)	0.016*** (0.005)	0.004 (0.013)	0.019** (0.007)
Interviewed after match × Real Madrid CF victory	0.000 (0.014)	-0.023*** (0.007)	-0.011 (0.015)	-0.014** (0.005)	-0.007 (0.014)	-0.019** (0.007)
R ²	0.08	0.16	0.37	0.32	0.37	0.3
Panel C: Vote for other nationalist parties						
Interviewed after match	0.003 (0.003)	-0.006* (0.003)	0.003 (0.003)	-0.003 (0.004)	0.003 (0.003)	-0.005 (0.004)
Interviewed after match × Real Madrid CF victory	0.009 (0.011)	0.020 (0.012)	-0.001 (0.003)	0.010 (0.009)	-0.003 (0.003)	0.012 (0.009)
R ²	0.04	0.23	0.23	0.4	0.22	0.39
Panel D: Vote for PSOE						
Interviewed after match	-0.044*** (0.014)	-0.007 (0.017)	-0.062*** (0.017)	-0.001 (0.015)	-0.054*** (0.014)	-0.007 (0.018)
Interviewed after match × Real Madrid CF victory	0.001 (0.038)	-0.001 (0.026)	-0.018 (0.044)	-0.026 (0.017)	-0.001 (0.034)	-0.020 (0.019)
R ²	0.14	0.15	0.39	0.44	0.37	0.43
Panel E: Vote for PP						
Interviewed after match	0.024 (0.017)	0.008 (0.011)	0.027** (0.009)	0.001 (0.007)	0.022** (0.009)	0.000 (0.008)
Interviewed after match × Real Madrid CF victory	-0.077*** (0.024)	-0.030* (0.015)	-0.073*** (0.016)	-0.002 (0.009)	-0.063*** (0.014)	-0.002 (0.011)
R ²	0.08	0.12	0.38	0.41	0.36	0.39
Panel F: Vote for all other parties						
Interviewed after match	0.007 (0.019)	-0.007 (0.013)	0.022 (0.025)	-0.003 (0.016)	0.012 (0.020)	-0.007 (0.016)
Interviewed after match × Real Madrid CF victory	0.040 (0.051)	-0.002 (0.021)	0.015 (0.049)	0.000 (0.019)	0.036 (0.053)	0.000 (0.020)
R ²	0.1	0.12	0.24	0.24	0.19	0.2
Panel G: Will not vote						
Interviewed after match	0.007 (0.019)	-0.007 (0.013)	0.022 (0.025)	-0.003 (0.016)	0.012 (0.020)	-0.007 (0.016)
Interviewed after match × Real Madrid CF victory	0.040 (0.051)	-0.002 (0.021)	0.015 (0.049)	0.000 (0.019)	0.036 (0.053)	0.000 (0.020)
R ²	0.1	0.12	0.24	0.24	0.19	0.2
Panel H: Don't know/no answer						
Interviewed after match	0.021 (0.013)	0.010 (0.009)	0.021 (0.016)	0.014 (0.009)	0.022 (0.014)	0.013 (0.010)
Interviewed after match × Real Madrid CF victory	-0.053** (0.023)	0.016 (0.017)	-0.040** (0.018)	0.017 (0.018)	-0.054** (0.018)	0.016 (0.018)
R ²	0.11	0.14	0.2	0.22	0.19	0.21
Panel I: Blank vote/null vote						
Interviewed after match	-0.003 (0.010)	-0.018** (0.007)	-0.006 (0.010)	-0.021*** (0.005)	-0.003 (0.010)	-0.020*** (0.005)
Interviewed after match × Real Madrid CF victory	0.002 (0.024)	0.017* (0.009)	0.011 (0.028)	0.020** (0.008)	0.009 (0.024)	0.019** (0.008)
R ²	0.06	0.08	0.12	0.19	0.11	0.18
Observations	1,452	8,382	1,438	8,178	1,452	8,382
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A10: Heterogeneity by Real Madrid CF victory.

A.7.3 Heterogeneity by incumbent prime minister's party

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Vote for Catalan parties						
Interviewed after match	0.021 (0.016)	-0.003 (0.002)	-0.025 (0.027)	-0.002 (0.003)	0.004 (0.039)	-0.003 (0.003)
Interviewed after match × PSOE Incumbent	-0.003 (0.030)	0.003 (0.002)	0.046 (0.029)	0.003 (0.003)	0.026 (0.042)	0.003 (0.003)
R ²	0.11	0.05	0.42	0.12	0.39	0.12
Panel B: Vote for anti-nationalist parties						
Interviewed after match	-0.015 (0.011)	0.012 (0.011)	0.015 (0.023)	0.007 (0.007)	0.012 (0.019)	0.008 (0.009)
Interviewed after match × PSOE Incumbent	0.012 (0.018)	0.003 (0.013)	-0.014 (0.026)	0.008 (0.009)	-0.013 (0.022)	0.009 (0.011)
R ²	0.08	0.16	0.37	0.32	0.37	0.3
Panel C: Vote for other nationalist parties						
Interviewed after match	0.009 (0.007)	-0.002 (0.002)	0.007 (0.007)	-0.003** (0.001)	0.009 (0.007)	-0.003*** (0.001)
Interviewed after match × PSOE Incumbent	-0.006 (0.008)	0.002 (0.007)	-0.007 (0.006)	0.004 (0.005)	-0.009 (0.007)	0.002 (0.006)
R ²	0.04	0.23	0.23	0.4	0.22	0.39
Panel D: Vote for PSOE						
Interviewed after match	-0.033 (0.024)	-0.015 (0.014)	-0.052 (0.035)	-0.029*** (0.006)	-0.036 (0.025)	-0.046*** (0.006)
Interviewed after match × PSOE Incumbent	-0.015 (0.029)	0.011 (0.022)	-0.018 (0.036)	0.028* (0.015)	-0.025 (0.029)	0.045** (0.016)
R ²	0.14	0.15	0.39	0.44	0.37	0.43
Panel E: Vote for PP						
Interviewed after match	0.038 (0.028)	0.008 (0.012)	0.032 (0.019)	0.007 (0.004)	0.028 (0.020)	-0.001 (0.004)
Interviewed after match × PSOE Incumbent	-0.039 (0.036)	-0.009 (0.016)	-0.027 (0.024)	-0.008 (0.009)	-0.025 (0.023)	0.000 (0.010)
R ²	0.07	0.12	0.37	0.41	0.36	0.39
Panel F: Vote for all other parties						
Interviewed after match	-0.039 (0.028)	-0.014* (0.008)	0.005 (0.020)	0.000 (0.007)	-0.018 (0.021)	-0.005 (0.006)
Interviewed after match × PSOE Incumbent	0.044 (0.034)	0.016 (0.016)	-0.003 (0.027)	-0.004 (0.011)	0.020 (0.031)	0.003 (0.012)
R ²	0.06	0.09	0.27	0.32	0.25	0.31
Panel G: Will not vote						
Interviewed after match	-0.008 (0.006)	0.031* (0.017)	0.007 (0.022)	0.040** (0.018)	-0.006 (0.004)	0.038 (0.024)
Interviewed after match × PSOE Incumbent	0.032 (0.026)	-0.050** (0.020)	0.024 (0.030)	-0.056** (0.021)	0.035 (0.026)	-0.059** (0.026)
R ²	0.1	0.12	0.24	0.24	0.19	0.2
Panel H: Don't know/no answer						
Interviewed after match	0.019 (0.014)	-0.002 (0.002)	0.000 (0.023)	0.000 (0.007)	0.007 (0.018)	0.000 (0.006)
Interviewed after match × PSOE Incumbent	-0.012 (0.024)	0.022** (0.010)	0.018 (0.030)	0.024* (0.012)	0.005 (0.025)	0.022* (0.012)
R ²	0.1	0.14	0.2	0.22	0.19	0.21
Panel I: Blank vote/null vote						
Interviewed after match	0.008 (0.006)	-0.015 (0.014)	0.010 (0.009)	-0.018 (0.012)	0.009 (0.007)	-0.018 (0.011)
Interviewed after match × PSOE Incumbent	-0.014 (0.012)	0.002 (0.015)	-0.020 (0.014)	0.002 (0.012)	-0.013 (0.013)	0.004 (0.012)
R ²	0.06	0.08	0.12	0.19	0.11	0.18
Observations	1,452	8,382	1,438	8,178	1,452	8,382
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A11: Heterogeneity by incumbent.

A.7.4 Heterogeneity by previous anti-nationalist vote

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Vote for Catalan parties						
Interviewed after match	0.019 (0.020)	0.000 (0.001)	0.011 (0.016)	0.000 (0.001)	0.024 (0.016)	0.000 (0.001)
Interviewed after match × Previous vote for anti-nationalist parties	-0.072 (0.056)	0.001* (0.000)	-0.058 (0.054)	0.001 (0.001)	-0.058 (0.048)	0.001 (0.001)
R ²	0.11	0.05	0.42	0.12	0.39	0.12
Panel B: Vote for anti-nationalist parties						
Interviewed after match	-0.002 (0.010)	0.012* (0.006)	0.001 (0.010)	0.010* (0.005)		
Interviewed after match × Previously voted for anti-nationalist parties	0.137 (0.137)	0.036 (0.098)	0.141 (0.147)	0.039 (0.100)		
R ²	0.38	0.3	0.37	0.32		
Panel C: Vote for other nationalist parties						
Interviewed after match	0.005 (0.003)	-0.002 (0.005)	0.002 (0.003)	-0.001 (0.004)	0.002 (0.003)	-0.002 (0.004)
Interviewed after match × Previously voted for anti-nationalist parties	0.005 (0.003)	0.012** (0.004)	0.004 (0.005)	0.006 (0.005)	0.003 (0.003)	0.008 (0.005)
R ²	0.04	0.23	0.23	0.4	0.22	0.39
Panel D: Vote for PSOE						
Interviewed after match	-0.047*** (0.014)	-0.008 (0.014)	-0.066*** (0.016)	-0.009 (0.013)	-0.056*** (0.013)	-0.013 (0.014)
Interviewed after match × Previously voted for anti-nationalist parties	0.015 (0.057)	0.027 (0.054)	0.003 (0.034)	0.023 (0.043)	0.021 (0.034)	0.029 (0.045)
R ²	0.15	0.15	0.39	0.44	0.38	0.43
Panel E: Vote for PP						
Interviewed after match	0.013 (0.018)	0.004 (0.010)	0.016 (0.013)	0.002 (0.006)	0.014 (0.011)	0.001 (0.007)
Interviewed after match × Previously voted for anti-nationalist parties	-0.125** (0.052)	-0.047 (0.034)	-0.144** (0.050)	-0.036 (0.027)	-0.135** (0.049)	-0.033 (0.027)
R ²	0.08	0.12	0.38	0.41	0.36	0.39
Panel F: Vote for all other parties						
Interviewed after match	-0.008 (0.018)	-0.001 (0.011)	0.003 (0.016)	-0.004 (0.008)	-0.004 (0.017)	-0.003 (0.009)
Interviewed after match × Previously voted for anti-nationalist parties	-0.009 (0.036)	-0.001 (0.026)	0.002 (0.043)	-0.001 (0.029)	-0.005 (0.031)	-0.001 (0.027)
R ²	0.07	0.09	0.27	0.32	0.25	0.31
Panel G: Will not vote						
Interviewed after match	0.013 (0.019)	-0.005 (0.012)	0.025 (0.022)	-0.001 (0.013)	0.019 (0.020)	-0.005 (0.014)
Interviewed after match × Previously voted for anti-nationalist parties	0.012 (0.062)	-0.033 (0.030)	-0.012 (0.062)	-0.039 (0.027)	0.001 (0.067)	-0.034 (0.028)
R ²	0.1	0.12	0.24	0.24	0.19	0.2
Panel H: Don't know/no answer						
Interviewed after match	0.012 (0.014)	0.014 (0.008)	0.014 (0.014)	0.018* (0.009)	0.013 (0.015)	0.017* (0.009)
Interviewed after match × Previously voted for anti-nationalist parties	-0.066** (0.028)	0.006 (0.013)	-0.046 (0.030)	0.004 (0.015)	-0.058** (0.025)	0.001 (0.016)
R ²	0.11	0.14	0.2	0.22	0.19	0.21
Panel I: Blank vote/null vote						
Interviewed after match	-0.006 (0.009)	-0.013** (0.006)	-0.007 (0.010)	-0.016*** (0.005)	-0.003 (0.009)	-0.015*** (0.005)
Interviewed after match × Previously voted for anti-nationalist parties	0.103 (0.063)	0.000 (0.012)	0.108* (0.058)	0.002 (0.012)	0.098 (0.061)	0.002 (0.012)
R ²	0.06	0.08	0.13	0.19	0.11	0.18
Observations	1,452	8,382	1,438	8,178	1,452	8,382
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A12: Heterogeneity by previous anti-nationalist vote. Columns 5 and 6 in Panel B are omitted because they are equivalent to Columns 1 and 2 in Panel B.

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Prefers sole central government						
Interviewed after match	0.062* (0.015)	-0.004 (0.022)	0.086*** (0.002)	0.020 (0.022)	0.064*** (0.006)	-0.005 (0.021)
Interviewed after match × Previously voted for anti-nationalist parties	-0.264** (0.032)	0.021 (0.048)	-0.357* (0.113)	0.008 (0.034)	-0.271*** (0.024)	0.021 (0.048)
R ²	0.18	0.15	0.29	0.19	0.19	0.15
Panel B: Less decentralization (give less autonomy to autonomous communities)						
Interviewed after match	0.018 (0.035)	-0.025 (0.015)	0.040 (0.019)	-0.037 (0.017)	0.019 (0.030)	-0.026 (0.016)
Interviewed after match × Previously voted for anti-nationalist parties	-0.126 (0.082)	0.064 (0.042)	-0.160 (0.095)	0.067 (0.039)	-0.130 (0.087)	0.064 (0.043)
R ²	0.03	0.15	0.13	0.21	0.04	0.15
Panel C: Maintain status quo						
Interviewed after match	-0.133 (0.062)	-0.017 (0.047)	-0.142 (0.138)	-0.048 (0.067)	-0.124 (0.102)	-0.019 (0.046)
Interviewed after match × Previously voted for anti-nationalist parties	0.153 (0.325)	0.075 (0.045)	0.081 (0.159)	0.027 (0.035)	0.124 (0.290)	0.077 (0.046)
R ²	0.12	0.22	0.31	0.29	0.2	0.22
Panel D: More decentralization (give more autonomy to autonomous communities)						
Interviewed after match	-0.076** (0.015)	0.060 (0.056)	-0.122 (0.107)	0.073 (0.041)	-0.073 (0.027)	0.059 (0.056)
Interviewed after match × Previously voted for anti-nationalist parties	0.529 (0.258)	-0.121 (0.045)	0.517 (0.178)	-0.072 (0.037)	0.519 (0.263)	-0.120 (0.044)
R ²	0.06	0.15	0.19	0.2	0.07	0.15
Panel E: Prefers a state which allows independence for autonomous communities						
Interviewed after match	0.128** (0.027)	-0.014 (0.012)	0.138** (0.016)	-0.009 (0.009)	0.113 (0.093)	-0.009 (0.014)
Interviewed after match × Previously voted for anti-nationalist parties	-0.291*** (0.018)	-0.038 (0.015)	-0.081*** (0.008)	-0.030 (0.011)	-0.242** (0.036)	-0.042* (0.013)
R ²	0.16	0.16	0.45	0.24	0.34	0.18
Observations	201	1,021	199	1,001	201	1,021
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A13: Alternative outcome results, opinions toward territorial organization, heterogeneity by previous anti-nationalist party vote.

	Catalan respondents (1)	All other respondents (2)	Catalan respondents (3)	All other respondents (4)	Catalan respondents (5)	All other respondents (6)
Panel A: Respondent feels solely Spanish						
Interviewed after match	-0.072 (0.081)	-0.023 (0.030)	-0.101 (0.051)	-0.031** (0.004)	-0.068 (0.067)	-0.025 (0.030)
Interviewed after match × Previously voted for anti-nationalist parties	0.122 (0.082)	-0.143* (0.043)	0.055 (0.153)	-0.182 (0.065)	0.111 (0.069)	-0.141* (0.042)
R ²	0.14	0.24	0.29	0.28	0.16	0.25
Panel B: Respondent feels more Spanish than of autonomous community						
Interviewed after match	0.001 (0.004)	-0.017 (0.018)	-0.001 (0.007)	-0.009 (0.022)	0.003 (0.010)	-0.017 (0.018)
Interviewed after match × Previously voted for anti-nationalist parties	0.313*** (0.008)	0.047 (0.060)	0.243** (0.026)	0.066 (0.062)	0.307*** (0.012)	0.047 (0.060)
R ²	0.17	0.15	0.25	0.17	0.18	0.15
Panel C: Respondent feels equally Spanish as of autonomous community						
Interviewed after match	0.027 (0.104)	0.062 (0.039)	0.096** (0.016)	0.056 (0.023)	0.041 (0.051)	0.060 (0.040)
Interviewed after match × Previously voted for anti-nationalist parties	-0.254 (0.090)	0.163* (0.045)	-0.415** (0.067)	0.190* (0.055)	-0.299** (0.047)	0.165* (0.044)
R ²	0.1	0.18	0.33	0.2	0.23	0.18
Panel D: Respondent feels less Spanish than of autonomous community						
Interviewed after match	-0.025 (0.151)	-0.017 (0.017)	-0.030* (0.010)	-0.007 (0.012)	-0.027 (0.138)	-0.017 (0.018)
Interviewed after match × Previously voted for anti-nationalist parties	-0.026 (0.122)	-0.067 (0.037)	0.076 (0.052)	-0.063 (0.062)	-0.019 (0.100)	-0.067 (0.038)
R ²	0.04	0.12	0.14	0.14	0.04	0.12
Panel E: Respondent feels solely of autonomous community						
Interviewed after match	0.068 (0.030)	-0.005 (0.010)	0.036 (0.064)	-0.008 (0.011)	0.051 (0.030)	-0.002 (0.011)
Interviewed after match × Previously voted for anti-nationalist parties	-0.155* (0.043)	0.000 (0.010)	0.042 (0.090)	-0.011 (0.009)	-0.099*** (0.004)	-0.005 (0.013)
R ²	0.09	0.2	0.41	0.28	0.34	0.23
Observations	200	1,083	198	1,064	200	1,083
Controls for:						
Match-province FEs	Yes	Yes	Yes	Yes	Yes	Yes
Non-voting covariates	No	No	Yes	Yes	No	No
Recalled vote	No	No	No	No	Yes	Yes

* p < 0.1, ** p < 0.05, *** p < 0.01

Table A14: Alternative outcome results, personal national identification, heterogeneity by previous anti-nationalist party vote.