Secessionist conflict and affective polarization. Evidence from Catalonia.

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Abstract

Can secessionism be a basis for affective or social polarization? Despite much research on independence movements, their relationship to polarization, a key mechanism theorized as increasing the risk of violent conflict, remains less understood. We argue that the issue of secession can affectively polarize along both policy and ethnic group lines even in the case of non-violent disputes, and posit a number of expectations regarding such secessionist-based polarization. We test our argument with the case of Catalonia, a substate territory that has experienced a deep secessionist crisis since 2017, using new data from a panel survey and embedded experiments fielded across two key time periods. We find that individuals' secessionist preferences condition high levels of affective polarization, in that pro and anti-independence advocates have strong negative views of one another. In addition, there is spillover in terms of stereotypes of associated language groups (i.e. Catalan, Spanish). Importantly, we find a group of moderates in between the two policy poles that exhibit far less polarization. Finally, we document the persistence of these overall patterns. Our results contribute to understanding the underexplored polarization dynamics of secessionist movements, particularly in contexts where high intensity violence (e.g. terrorism, civil war) has not occurred.

Keywords: Catalonia, ethnic conflict, polarization, secessionism, Spain

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Introduction

An enduring concern in many multinational states is how to address secessionist movements. Such demands pit conflicting values of territorial integrity or constitutional compliance against those of self-determination. While the current political impasse in Spain regarding the independence drive in Catalonia is one of the most salient examples in the Western press, secessionist movements have recently been or are still relevant in many democratic or quasi-democratic countries (e.g. Canada, India, Indonesia, Russia, the United Kingdom). The literature on such movements has concentrated on their origins, success, and potential for violence (e.g. Cunningham, 2014; Griffiths, 2016; Gehring & Schneider, 2020). Recent literature hones more thoroughly on the individual-level correlates of support for such movements and related parties (e.g. Loewen, Heroux-Legault & de Miguel, 2015; Muñoz & Tormos, 2015; Hierro & Queralt, 2021). Yet, a key feature of independence movements that remains less understood and explored is the corresponding affective polarization or inter-group animus that can occur within the contested regions as such movements escalate. In much of the secessionist and civil conflict literature, the existence of group polarization is assumed to be a cause of conflict, but to date, theorization and empirical scrutiny of how much and what forms of polarization are relevant in these contexts have been limited.

Social polarization is a problematic aspect of independence movements and counter-movements because it can escalate distrust and prevent peaceful resolution of the conflict.[1] Conflict scholars have documented that identity activation and polarization can be endogenous to civil conflict (Dragojevic, 2019; Fearon & Laitin, 2000; Gagnon, 2004; Kalyvas, 2008), but there is limited literature on this phenomenon in secessionist contexts,

[1] We use existing definitions of social or affective polarization as the degree of relative affect (like or dislike) of another group. See, for example, Iyengar, Sood & Lelkes (2012: 405–431).

particularly in cases that are not yet violent. While there is a literature on the determinants of nonviolent or democratic secessionism (e.g. Gehring & Schneider 2020), polarization dynamics in contexts of democratic secessionism are much less explored.

In this study, we examine secession-based polarization. We present a design that permits the discrete measurement of individual-level political preferences and social polarization during an ongoing push for secession in an advanced democracy. The design builds on a straightforward theoretical proposition that policy differences over secession can be the basis of negative out-group (and positive in-group) evaluations and stereotyping; consistent with existing literature, we categorize such attitudes as *social or affective polarization* (Mason, 2018). This type of polarization is assumed in many theoretical and empirical studies of conflict but is generally unmeasured. We argue that supporters and opposers of secession can polarize by expressing comfort with people who share their territorial views and discomfort with those who have different territorial views. We further theorize and explore the possibility of stereotyping people with opposing policy views, as well as groups (e.g. ethnonational, religious, linguistic) associated with the policy. We contend that those with intermediate policy preferences (that is, moderates on the policy issue) will be less likely to exhibit such differences in affect and stereotyping. Our claims draw on the literatures of secession, political polarization, and out-group stereotyping; to date, the latter two agendas have been largely separated from the first.

To test our propositions, we use evidence from the current most salient case of secession in advanced industrial democracies: Catalonia. The crisis in Spain posed by the Catalan independence movement is arguably the most serious sustained challenge to Spanish democracy since the country's regime transition in the late 1970s. However, Catalonia

remains a 'negative' case of a violent civil conflict despite high tensions and state rejection of the movement. The conflict in Catalonia has remained broadly non-violent, although there has been low-intensity violence in the forms of police and protest violence; this contrasts with cases where secessionist campaigns have been violent (e.g. Corsica, Basque Country, East Timor, Yugoslavia). As some conflict scholars have emphasized, negative cases are instructive about the conditions of violent escalation (e.g. Straus, 2015; Wood 2009). Our study delves into the measurement and dynamics of polarization in Catalonia using novel data, collected at one peak of the political crisis, that allow measurement of polarization. Evidence from such a case is relevant because it can support theorizing about scope conditions under which polarization can lead to violence; we return to this in the conclusion.

We designed a unique, large, regionally representative survey in Catalonia, fielded in the period between the controversial referendum on 1 October 2017 and the extremely contested and salient regional elections in late December 2017. The elections were called by the Spanish government after the unprecedented activation of Article 155 of the Spanish Constitution that imposed direct rule from the Spanish government in response to the regional government's declaration (albeit 'non-pursuit') of independence. Independence was the main issue during that electoral campaign. As a robustness check and to assess the persistence of such effects, we fielded a second wave in September 2018, re-interviewing over 60% of the respondents. This panel evidence allowed us to more precisely measure over-time variation in independence views and social polarization.

We measure potential affective polarization over the territorial issue by assessing both territorial preferences and measuring comfort with and assessments of fellow citizens who have various traits, chiefly their position on the independence issue and their language group.

To elicit causal effects as well as to counter issues raised by social desirability and survey acquiescence bias, we embed a series of experiments that randomize the group assessed by survey participants.[2]

We find that independence supporters and opposers have both positive and negative affect for fellow supporters or opposers in the expected directions. Moreover, we find that they stereotype the associated language groups; that is, Spanish-speaking for anti-independence positions, and Catalan-speaking for pro-independence positions. Further, these differences are pronounced for advocates of independence and the territorial status quo, but are far smaller for individuals who support an intermediate autonomy option, or 'territorial moderates' (Balcells & Kuo, 2021). Finally, the evidence from our two-wave panel suggests that this secession-related polarization is persistent over time; it did not decrease some months after the peak of the conflict.

Motivating literature

Much existing research on the politics of secession is on cross-regional or national variation, focusing on why or when autonomy movements are politically successful (Massetti & Schakel, 2013; Hale, 2008; Sambanis & Milanovic, 2014; Sorens, 2005) or when self-determination movements lead to political violence (Brancati, 2006; Wimmer, 2002).[3] The general approach is to test national- and regional-level covariates to assess which variables matter for certain outcomes at those levels, such as decentralizing institutions, the

[2] For one review of such approaches in the US context, see Druckman & Levendusky (2019).
[3] See Gehring & Schneider (2020) for a recent study on the role of relative regional wealth in causing secessionism.

prominence of regional parties, strategies of the state, and regional wealth. At the same time, a growing set of studies addresses why individuals support independence in specific cases. Some find that individuals who identify strongly with the region or relevant ethno-national group, due to family origins or aspects of the education system, are more supportive of increased autonomy or independence (Serrano, 2013; Sarigil & Karakoc, 2016; Hierro & Gallego, 2018; Guinjoan 2021). Others establish that support for secessionism is highly correlated with regional resources (Amat, 2012; Gehring & Schneider, 2020) and individual economic considerations (Muñoz & Tormos, 2015; Loewen, Heroux-Legault & de Miguel, 2015; Balcells, Fernández-Albertos & Kuo, 2015; Hierro & Queralt, 2021). Of course, given the correlated nature of many individual-level characteristics, disentangling those that are the most causally relevant is difficult.

These two general approaches to explaining secession, however, neglect an important research question: whether and how secessionism is linked to social division or social polarization within the originating region. If affective polarization based around secessionist views exists and is resilient, it could make both escalation into violence more likely and peaceful resolution of such conflicts more difficult. Similarly, such polarization could be a factor in sustaining secessionist movements as views of the conflict can further divide along group membership lines (Brancati, 2006; Fearon & Laitin, 2000; Rabushka & Shepsle, 1972).

To motivate our hypotheses and design about secession-based polarization, we draw on two related literatures and identify their lacunae: one on civil conflict and the other on group stereotyping. Regarding the first, the relevance of polarization to explain violent conflict or conflict escalation is established, as a number of studies use cross-national evidence to document that polarization among ethnic groups is positively correlated with both the onset

and the duration of civil conflict (e.g. Esteban & Schneider, 2008). Such polarization measures are frequently constructed using individual-level data about which ethnic group people claim to be members of, and are defined such that polarization means an increased extent to which the population is clustered around a small number of distant poles. Thus, country-level polarization is most frequently measured simply as a mechanical feature of the distribution of group sizes.[4]

A persistent challenge in the measurement of polarization from these conflict studies is that the existence and *degree* of in-group positive affect and out-group animus—or how polarization from group data is supposed to facilitate conflict—cannot be inferred from structural calculations of polarization based on demographic composition. Put simply, much of the literature linking demographic 'polarization' to the possibility of conflict assumes 'affective or social polarization' as the key mechanism or reason why such polarization is relevant, but does not actually measure it. Of course, a wealth of ethnographic or qualitative evidence indicates that conflict situations are frequently linked with negative stereotypes and grievances against groups, leading to mistrust. In his 1985 classic, Horowitz (1985: 167–70) gives many examples of how ethnic conflict causes group stereotypes and mistrust, and recent studies find that such group views are themselves often endogenous to conflict dynamics (Dragojevic, 2019; Fearon & Laitin, 2000; Gagnon, 2004; Kalyvas, 2008). Again, polarization measures are calculated on the basis of individual-level group affiliation, and such identity affiliations themselves could be due to the shadow of conflict. Hence, it is difficult to measure how a secessionist drive or conflict affects polarization and

[4] See Esteban & Schneider (2008) for an overview of such competing measures.

corresponding group affect *ex post*, and thus it is valuable to obtain more precise, attitude-based indicators of polarization in periods of tension.

In contrast to this civil conflict literature on polarization, a long tradition in social psychology and political behavior measures the extent of in-group affect or out-group animus, even among groups that are non-ethnic (Wittenbrink, Judd & Park, 2001), such as political parties (Miller & Torcal, 2020). This research often documents how the relationship between 'group' identity and positive group affect (and negative out-group affect) can be strengthened or manipulated. A recent contribution to this is the growing literature on US partisan polarization (Iyengar et al., 2019). For example, Mason (2018) shows that US identity-based partisan polarization has increased because of the greater sorting of various identity groups into partisan groups and the corresponding decline of cross-cutting identities. Bordalo, Tabellini & Yang (2020) analyze how the international political context (and, in particular, external threats) affect the activation of partisan group stereotypes in the US. But, overall, evidence on the link between group affiliation (however the group is defined) and affect or polarization comes from subjects in countries where domestic group-based conflict is not on the horizon. More specifically, measurement of stereotyping as it relates to secessionism is absent.[5]

Given the above discussion, it should be clear that what is needed in the study of secession dynamics is measurement of affective polarization when this has become a salient political issue. The scholarship to date lacks consideration of affective polarization that can result

[5] Gagnon (2004) and Petersen (2002) study polarization processes during the conflict escalation and outbreak of violence in the Balkans and the Baltics, respectively, but focus less on measurement of changes in stereotyping. Some other studies demonstrate identity-priming in post-conflict contexts; see Chang & Peisakhin (2019); Mashuri & Leeuwen (2018).

from support for or opposition to secession as a policy preference. We argue that support of or opposition to a territorial policy can condition views of other citizens and encourages the formation of stereotypes. We take this basic policy disagreement as the starting point and basis for thinking of territorial preferences that can have consequences akin to other types of group identification. This is because as secessionist claims relate to a fundamental view of the functioning and integrity of the polity, they should be a distinct and likely basis of affective polarization. Compromise over this issue is more difficult because of the zero-sum and indivisible nature of policy goals (for example, independence is either achieved or not). Concurrently, the emotionally charged nature of the issue (Balcells & Kuo, 2021) also facilitates group identification and affect. We present four broad claims that follow from these theoretical points.

Our first baseline expectation is that territorial preferences themselves can be a basis of 'in-group' belonging and negative 'out-group' affect, which can be theoretically distinct from other demographic-oriented bases of group attachment. Concretely, pro- and anti-independence individuals will have negative assessments of those with different territorial positions and positive assessments of those with the same territorial positions. Our expectation is that, on average, supporters of an independence policy position (whether it is pro- or anti-secession) will evaluate co-supporters most favorably and opposers of their position least favorably.

Second, we expect that individuals' evaluations or affect towards others will be stronger towards those with more intense preferences. For example, a pro-independence individual will feel more negative affinity towards someone who feels very strongly about the territorial status quo than towards someone who feels less strongly about it. Symmetrically, an individual who is pro status-quo will feel more negative affect towards someone who is more

intensively pro-independence than toward someone who has less intensive pro-independence views.

Third, following recent literature on identity groups in Spain that has documented different patterns of social polarization across ethnonational groups associated with the territorial cleavage (Criado et al., 2018), we conjecture that division over the territorial issue can lead to polarization and stereotyping regarding groups not directly related to the territorial issue, but associated with it. This is a straightforward expectation given the overlap between territorial claims and nationality or language (Serrano, 2013; Guinjoan, 2021). In particular, we conjecture that supporters of a given territorial position will evaluate the closest 'associated' ethnic or language group more favorably than other groups, and evaluate non-associated ethnic or language groups less favorably.[6]

Fourth, we expect that this affective polarization is most likely to emerge among individuals who hold positions at the poles of the secession issue. Drawing on recent research on demographically 'cross-pressured' individuals (Hierro & Gallego, 2018), we expect those with an intermediate territorial position will be less likely to negatively evaluate others who have different preferences, and also less likely to stereotype based on affiliated language groups.[7] We suggest as above that this is because such individuals have weaker emotions on this issue (Balcells & Kuo, 2021). We also conjecture that the persistence of a group with an

[6] While other research demonstrates how events that incentivize ethnic activation (such as proximate elections) can increase ethnic identification (e.g. Eifert, Miguel & Posner (2010) with evidence from Africa), our focus is on territorial preferences and affect. Criado et al. (2018) show that the growing salience of the Catalan independence issue increased trust (measured via trust games) between Spanish-speaking individuals in Catalonia between 2012 and 2015 but had little effect on trust for other language dyads. The aforementioned study was not focused on territorial preferences (our focus), but on trust among language groups, and was conducted prior to the unilateral referendum of 2017.

[7] Hierro & Gallego indicate with earlier evidence from Catalonia that the secessionist issue has hardened identities, but only for those at the poles of the territorial issue. They establish that individuals with moderate territorial positions are more likely to have mixed identities (Hierro & Gallego, 2018).

'intermediate' policy position helps prevent polarization from escalating into conflict, a point we return to in the conclusion.

These straightforward hypotheses regarding polarization and stereotyping based on territorial views are instructive because while the endogenous formation and hardening of group identities has been studied in violent contexts, we have little evidence of how these processes unfold in the context of secessionist conflicts that remain mostly non-violent. As noted, most empirical evidence about group polarization dynamics has been gathered *ex post*, when a violent conflict has occurred or is well under way, not earlier, at times where political tension about the issue is increasing (such as our study). The 'real time' strengthening of territorial positions and corresponding polarization of a conflict are empirically challenging to identify. If territorial-policy-based polarization among groups exists, it is important to assess its magnitude, and to evaluate whether such division spills into animosity towards fellow citizens.

Background to the Catalan case

In the early 1930s, Catalonia had some autonomy within Spain, with institutions of self-rule. During the Franco dictatorship (1939–1977), cultural rights for national minorities in Spain (Basques, Catalans, Galicians) were repressed, and Spanish nationalism was fiercely promoted by state institutions (Balcells & Villamil, 2020). During the transition to democracy in the late 1970s, a process of devolution began and several aspects of self-government in Catalonia were restored in a regional governance system called the 'State of the Autonomies' (Colomer, 1998). Authority over healthcare and education provision, among other policies, was transferred to subnational parliaments and governments, with incomplete federalism

(Beramendi, 2012). National laws and institutions often limited the autonomy of regional units. Moreover, contestation about revenue transfer from regions to the center has been a longstanding issue (Beramendi, 2012; Amat, 2012; Balcells, Fernández-Albertos & Kuo, 2015). Overall, a preference for increased political and fiscal autonomy, along with identity concerns (including language policy) have driven tensions between the Catalan and Spanish governments.

In the early 2000s, demands for further decentralization in Catalonia increased, and a coalition government proposed a new Statute of Autonomy that would recognize Catalonia as a nation within Spain, institute more concrete protection of regional competences against interference from the central government, and implement a new method of allocating fiscal resources between Catalonia and the rest of Spain. After much negotiation, the new Statute was approved by the Catalan and Spanish Parliaments, and ratified in a referendum in Catalonia in June 2006. Four years later, however, in a controversial decision, the Spanish Constitutional Court declared certain provisions of this Statute unconstitutional, most notably the recognition of Catalonia as a nation and the 'competence shielding' of regional policies. In response, some Catalan political parties began to advocate for a referendum for independence, which garnered increasing support in the region (Rico & Liñeira, 2014). Spanish nationalist parties also mobilized in Catalonia and gained ground among voters who were skeptical of or opposed to policies to increase protection of Catalan language or culture.

The economic recession beginning in 2008 and the victory of the conservative (and more centralist) Partido Popular (PP) in the Spanish election of 2011 likely helped increase support for independence in Catalonia; around half the population in the region claimed support for independence in 2014. While some argue that this secessionist mobilization was mostly a

bottom-up process (Rico & Liñeira, 2014), others contend that it was driven by elites engaging in 'ethnic outbidding' (Barrio & Rodriguez-Teruel, 2017). Social movements in favor of independence became more active and increased membership, indicated by massive rallies calling for a self-determination referendum and a series of local referenda. At the same time, parties that aggressively reacted to this nationalist mobilization, in particular Ciudadanos (Cs), gained support among Catalan voters. Belligerence and hostile rhetoric between the leaders of Spanish and Catalan nationalist parties increased. Grassroots or societal organizations also emerged to challenge Catalan nationalism (e.g. Sociedad Civil Catalana, SCC).

The Catalan government, then led by Artur Mas, continued to press for negotiation with the central government for a new governance structure, and insisted on a self-determination referendum. After the Spanish government rejected this, the Catalan government called for a plebiscitary election, a regional parliamentary election in which pro-independence forces would have as a single element at the top of their program, the pursuit of independence. Pro-independence forces obtained a majority of 71 seats in the parliament though they fell short of a 50% popular support threshold. Whether a mandate for independence had been obtained was therefore controversial, and the new government led by Carles Puigdemont chose the option of pursuing a unilateral referendum of independence. The Catalan parliament passed a set of laws on 6–7 September 2017 that set a self-determination referendum for 1 October, intending to 'disconnect' Catalan legality from the Spanish system if a majority voted for independence. The anti-independence parties in parliament refused to participate in the vote, and treated those laws as criminal acts; some political and social leaders who opposed such laws labeled them as a 'coup' against Spanish democracy.

Despite the Spanish Constitutional Court declaring this referendum legislation unconstitutional and central government warnings about legal consequences, the regional government proceeded with the referendum. This led to an unprecedented crackdown by Spanish police forces as they attempted to shut down polling stations (Balcells, Dorsey & Tellez, 2021; Barceló, 2018). Scenes of police attacks on referendum voters and non-violent protesters became prominent in Western media. The crisis continued after the referendum, with Puigdemont declaring independence on 10 October – but revoking this declaration immediately afterwards, the Catalan Parliament voting a resolution for declaring Catalonia independent of Spain on 27 October – although with no operational effect, and the Spanish Senate quickly voting for the temporary suspension Catalonia's autonomy, activating a Constitutional clause (Article 155) that allows the state to take control of a region if it 'fails to fulfil the obligations imposed upon it by the Constitution'. The application of Article 155 dissolved the Catalan Parliament and disbanded the Catalan government, and the central government called for new regional elections, which were held on 21 December 2017. While there was a massive rally against the October 1st police repression, in October 2017 there were also rallies in Catalonia against the secessionist 'process', led by pro status quo political parties and social organizations, which indicated the extent to which there was division in Catalan society about this issue. The large rallies, in both camps, also indicated how intensely these issues were felt by Catalan citizens at both ends of the territorial divide.

In the December 2017 elections, which took place in a highly polarized environment, Cs won a plurality with 25.3% of the vote. However, the three pro-independence parties, which obtained a total vote share of 48.5%, secured another parliamentary majority. A pro-independence government was invested in 2018 and led by Quim Torra, as Puigdemont remained outside the country due to an outstanding Spanish arrest warrant. While some pro-

independence leaders and social activists had been in prison since October or November 2017, others had been freed on bail before the elections. Yet, they were remanded in custody again on March 2018. All of the prisoners were to be tried for sedition and/or rebellion by the Spanish Supreme Court in 2019.

In June 2018, the Spanish Socialist Party (PSOE) leader Pedro Sánchez won a motion of no-confidence in the Spanish Congress and became President, replacing the conservative Mariano Rajoy. In October 2019, the jailed politicians and social organizers were sentenced to between nine and 13 years of imprisonment, and more demonstrations and several violent protests ensued throughout Catalonia. Negotiations between the Spanish and Catalan governments began in late 2019, but they stalled, and resumed in September 2021 (after the Spanish government pardoned the prisoners in June 2021). Figure 1 presents a timeline of key recent political events in Catalonia and the evolution of support for independence in Catalonia.

Figure 1 in here

Empirical design

Catalonia is a natural and important testing ground for whether disagreement over regional territorial issues can be the basis of social polarization, and whether polarization spills over to the 'ethnicization' of the conflict through the formation of negative out-group stereotypes. We designed an online survey with embedded experiments that was fielded between 11 and

20 December 2017, hence in the period just prior to the December election called under unprecedented circumstances. Our representative sample consisted of 2,537 residents of Catalonia aged 18 or older, fulfilling age-category and gender quotas. The survey was fielded in Catalan or Spanish (respondents could choose the language).[8] To test the stability of preferences and polarization, we fielded a follow-up survey between 19 and 30 September 2018; 63% of respondents to the first survey were re-interviewed in the second wave.

Across both waves, we first assessed the baseline preferences for Catalan independence. The core aspect of the design was to embed two distinct experiments designed to measure social polarization related to territorial views. In each experiment we randomly divided the sample into four groups. In a 'neighbours' comfort' experiment, we test directly the first, second, and fourth hypotheses (territorial-policy based affect, extremity of group views, and the role of intermediate territorial preferences). We do so by asking respondents to assess the comfort of having one of four randomly assigned groups (each with distinct territorial preferences, described below) as a neighbour. In a 'stereotype' experiment, we test the first, third, and fourth hypotheses (territorial-policy based affect, language-group evaluation spillover, and the role of intermediate territorial preferences) by asking respondents to describe how well various positive and negative traits describe people who fall into one of four groups (language groups or territorial preferences, described below).[9] In both designs the randomization masks the intent of the design, addresses problems of survey acquiescence bias, and prevents potential fatigue from addressing repetitive questions.[10]

[8] The surveys were fielded by the company Respondi after IRB approval. We pre-registered two pre-analysis plans (PAPs) with EGAP.
[9] Thus, the first and fourth hypotheses are tested with a similar design but different measurement strategies to better validate them.
[10] Randomization checks are detailed in part G of the Online appendix.

In Wave 2, we measured respondent territorial preferences again, and followed the same procedures as in Wave 1, assigning respondents to the same treatment groups as in Wave 1.[11] This second wave allows us to provide a rare assessment of stability in territorial preferences as well as the persistence of any polarization.

In our pre-treatment assessment of independence preferences, we asked individuals for their preferred political status of Catalonia. The response options were: that they prefer Catalonia to be an independent state; that it should have more autonomy; that the status quo should be kept; or that Catalonia should have less autonomy. In the first wave, 44% (1,132 respondents) indicated a preference for Catalonia to be a separate state, 35% wanted Catalonia to have more autonomy, 17% indicated support for the status quo arrangement, and 5% preferred less autonomy.[12] We recoded to consider three broad categories: 'prefer independence', 'greater autonomy' (but not independence), and 'the status quo/less autonomy'.[13] This tripartite coding is the most straightforward indicator of territorial preferences, which we use as the key moderator in our subsequent experimental analyses.[14]

Table A1–A2 and Figures A1–A5 of the Online appendix provide various basic descriptive statistics of the sample in both waves, with a focus on territorial views and cross-tabulations by various demographic indicators. The focus of this study is not on the correlates of support for independence, as those have been extensively documented, but for interested readers the

[11] To benchmark our results and degree of polarization, in the second wave, we assessed preferences on other divisive policies and measured stereotypes of those with the same or different policy preferences. These results are displayed in Online appendix Figure H1 and Table H1.
[12] Overall change in territorial preferences between the waves was minimal (Figure A1 in the Online appendix). In the second wave, 47% of individuals support independence, 33% support autonomy, and 21% support the status quo or less autonomy. Part F of the Online appendix presents more evidence regarding minimal changes between the waves.
[13] The status quo and less autonomy categories are merged because these are the two least frequent responses in our survey.
[14] In our PAP we discuss this as the most relevant moderator.

Online appendix presents regression results with territorial preferences as an outcome. Table C1 corroborates many previous studies of the sources of individual support for Catalan independence (discussed above). For example, controlling for other common demographic variables, we find a strong correlation between Catalan identity and support for independence.[15]

Evidence on affective polarization by territorial view

Experiment 1: assessing affect and intensity

We start by describing the design to test the hypotheses of whether the territorial issue polarizes in terms of inter-group animus or comfort, and whether this affect is greater for those with preferences at the poles. We do this by measuring the amount of reported comfort or discomfort as a result of social proximity to people with differing or similar political positions, but varying the intensity of these positions.

In the first experiment, we ask about the (dis)comfort that would be induced by having new hypothetical neighbours, and we randomly vary the main characteristics of these hypothetical neighbours regarding their policy views and the public expression of these policy views, which is a realistic way of measuring individual preference intensity. Specifically, we ask respondents how comfortable they would be in moving to a place where most of their new neighbours are the following (with the respondent being randomly assigned evaluate one of these groups): (1) they support the independence of Catalonia; (2) they do not support the independence of Catalonia; (3) they display pro-independence flags; or (4) they display

[15] Of course, such identity may itself be endogenous to territorial preferences. See Table C1 for measurement and results.

Spanish flags. Compared with the first two conditions, the last two can be interpreted as indicative of intense preferences, as they are expressed publicly with the aim of their being known.[16] This design allows a clear assessment of how much positive affect there is towards people who take different positions on the independence issue (testing Hypothesis 1), as well as affect towards people who wish to make these preferences visible – and thus arguable feel more intensely about them (testing Hypothesis 2).[17] Because we measure support for 'greater autonomy' as an intermediate position, we can assess whether group evaluations differ for these respondents (testing Hypothesis 4). The random assignment of evaluations of each of these four experimental groups allows for straightforward comparison of whether hypothetical comfort or discomfort varies by the neighbours' traits and respondent territorial views.

Figure 2 displays the comfort scores for both waves, decomposed by individuals who are pro-independence, pro-status quo, and pro-greater autonomy and treatment group.[18] It shows several key patterns that confirm considerable affective polarization over the independence issues. Overall, consistent with Hypothesis 1, pro-independence and pro-status quo individuals evaluate like-minded individuals very positively and unlike-minded individuals negatively, and they have rather symmetrical reactions in terms of their comfort. However,

[16] The question text and treatment were: 'Suppose you were moving to a new apartment or house within your neighbourhood. How would you feel if most of your neighbours [are against the independence of Catalonia / support the independence of Catalonia / display the Catalan independentist flag / display the Spanish flag], on a scale of zero to one hundred, where zero means very uncomfortable, and one hundred means very comfortable?'
[17] Asking about flag display is sensible to respondents in Catalonia, as this practice has become increasingly common as a result of the political conflict. In recent years, some pro-independence people have increasingly displayed secessionist flags (*Estelada*) outside of their homes (Parravano et al., 2015). In addition, the display of Spanish flags within Catalonia and other parts of Spain since the 1 October 2017 referendum has increased; Dinas, Martínez & Valentim (2020) provide systematic evidence about the increase in display of Spanish flags in Madrid). See Online appendix Part G for balance tests.
[18] Online appendix parts C and D present the regression results.

contra Hypothesis 2, we find that individuals do not have different levels of affect regarding neighbours with more intense preferences, compared to their evaluations of the other groups.

Figure 2 in here

To detail this, we first consider in the left panel the views of those who support independence. In the condition where the pro-independence advocates view potential neighbours who share their position, the reported mean comfort level is 93 out of 100. The pro-independence advocates' view of hypothetical anti-independence neighbours considerably drops to a lower score of 45 ($p < 0.01$); this score is below the neutral score of 50. Regarding testing Hypothesis 2, note that the comfort score for living with neighbours who would show the Catalan independentist flag is 91, not distinguishable from the 'baseline' high score of 93 for neighbours who support Catalan independence. Thus, the enthusiasm for those who outwardly support independence via the flag and those who are supportive of independence is quite similar. Finally, for pro-independence individuals, the lowest comfort score is for neighbours who show the Spanish flag, 36 ($p < .01$). This score is statistically distinguishable from and lower than the anti-Catalan independence score of 45 ($p<.01$). Thus, for pro-independence advocates, hypothetical neighbours who display the Spanish flag pose *more discomfort* than those who are just anti-independence.

The right-most panel shows a similar overall trend for those who are pro-status quo (that is, those most anti-independence), although they have differences in the baseline degree of comfort. For pro-sq respondents, there is positive affect for those who share their territorial preference; the reported comfort level for similarly anti-independence neighbours is 79 (note that this score is lower than the aforementioned pro-independence advocates' comfort with their like-minded pro-independence neighbours, which is 93). For the status quo advocates, their comfort hypothetical pro-independence neighbours drops below the mid-point level to 32 ($p < 0.001$). However, their comfort score for neighbours who show the Spanish flag is 77; this score is not statistically different from the comfort score towards those who are anti-independence and do not display flags. And finally, their comfort score for hypothetical neighbours who show the independence flag is statistically indistinct from those who support independence without displaying flags (29). Thus, there is no difference for status quo advocates between comfort with neighbours who support an opposing position and those who are outwardly demonstrative of it.[19]

To reiterate, these results constitute strong confirmation for Hypothesis 1 that there is territorial-preference based polarization. We find mixed to limited evidence for the second proposition about intensity of preferences, but we document two notable asymmetries. First, pro-independence individuals do seem to 'distinguish' between neighbours who would be anti-independence and those who would display the Spanish flag; but pro-status quo individuals do not distinguish between pro-independence neighbours and those displaying an independentist flag. Second, when comparing pro-independence and pro-status quo

[19] Table B1 displays the regression results where the coefficient of interest in the baseline OLS specification is the interaction term between treatment assignment x independence view, where the interaction term is precisely estimated and gives the corresponding predicted comfort score.

supporters, the latter show *lower baseline* comfort regarding their *own* policy supporters and flag-flyers as well as slightly *lower baseline* comfort for the *opposing* policy supporters and flag-flyers (relative to pro-independence supporters).[20]

The middle panel, showing the results for those who support greater autonomy, reveals that such individuals have less affective polarization on the issue, broadly confirming Hypothesis 4. These individuals do not differentiate in comfort assessments based on independence position, nor based on intensity of preferences. Across all treatment groups, the comfort score is consistently in the fifties and there are no statistically significant differences across the groups. In short, this group feels similarly comfortable around the four different types of neighbours and does not differentiate among them.

These results indicate clear polarization over the secessionist issue, as pro-independence and pro-status quo supporters view the other side with less comfort and are far more comfortable with like-minded individuals. Figure 2 and Tables C2 and D1 also show the over-time stability of the results of this experiment.[21]

Experiment 2: Affect based on policy positions vs. group affiliations

We turn to an additional test of affective polarization based on territorial position, where the focus is on whether people who have a position on the independence issue have stereotypes

[20] We posit, but cannot confirm, that pro-SQ individuals may perceive themselves as a minority, but the precise reasons for this and other alternative explanations for their generally lower evaluations is beyond the scope of the paper.
[21] Tables D1 and D2 present the regression results of the second wave (weighted by gender and age category); note that these are very similar to the unweighted results.

of others with similar or different views, and whether such stereotyping extends to affiliated language groups (essentially whether there are spillovers of policy views). This experiment is a direct test of Hypothesis 3, and it also allows us to provide an additional test of Hypotheses 1 and 4.

We ask respondents to assess how well various character traits apply to fellow citizens, focusing on evaluations of individuals who hold similar or opposing independence views (as in the previous experiment), but we also compare such evaluations with associated language groups. We give respondents the opportunity to stereotype people holding particular policy views or speaking a particular language, and compare the stereotyping of people with independence views with that of people who speak Catalan or Spanish at home. To do so, we randomly assign respondents to one of four experimental groups, the groups being assigned to evaluate people who (1) are pro-Catalan independence; (2) are anti-Catalan independence; (3) speak mainly Catalan at home; (4) speak mainly Spanish at home. The main question text asks individuals to rate how well various adjectives characterize people who either hold a particular independence position or speak a certain language (depending on which group they are assigned to).[22] For each adjective, we classify binary responses whereby 1 = the trait describes the group extremely or very well and 0 = all other responses. For each respondent we sum the binary indicators for the positive traits and subtract the binary indicators of the

[22] The question format has been applied in other contexts on group stereotyping (see Iyengar, Sood & Lelkes, 2012): 'Now we would like you to describe as best as you can what traits you think best describe people who [strongly support Catalan independence / strongly believe that Catalonia should be part of Spain / speak mostly Catalan at home / speak mostly Spanish at home]. Of course, it is difficult to generalize, but we would like you to describe them as best as you can'. The traits asked about were: open-minded, prejudiced, honest, selfish, reliable, untrustworthy—thus three generally positive and three negative traits. The response options were: not well at all, slightly well, somewhat well, very well, and extremely well. The results are substantively similar if we consider a subset of four adjectives that are distinct (and not potentially interpreted as opposites). Online appendix Part E presents regression results.

negative traits, to create a net positive evaluation score. The range is thus from –3 to 3.[23] We then rescale the measure 0 to 1, with 1 indicating maximum net positive evaluation and 0 indicating maximum net negative evaluation.[24] Willingness to ascribe negative characteristics to people who have different territorial preferences would indicate polarization based on independence views, but we also assess whether individuals who hold certain policy positions engage in stereotyping of people based on their language group as well as territorial view.

The main quantity of interest is how individuals who have different independence views differ in their assessments of these groups. This is done by comparing the net evaluation scores of each treatment group, again sub-setting by the theoretically fundamental subgroups of pro-independence, pro-status quo, and pro-autonomy supporters.[25] Within each subgroup we report difference of means tests across the four treatment groups.[26] Figure 3 presents the results.

Figure 3 in here

[23] We code 'very well' or 'extremely well' as one and the rest zero for each adjective to indicate that the respondent positively or negatively stereotypes, to facilitate generating an index. For example, if a respondent gives a rating for all adjectives of 'very well' or 'extremely well', then the net evaluation is (3–3) = 0, i.e. a 'neutral' evaluation (given that the respondent believes that all positive and negative traits describe the hypothetical group equally well). If a respondent rates all positive adjectives as describing the group very or extremely well, and all negative adjectives as somewhat well to not well at all, then the net score is 3, the maximum positive evaluation of the group. We also code those individuals who might wish not to stereotype by generating a separate indicator for those who answer the same for every adjective. Less than 4% of respondents gave the same answer for every trait (indicating a possible aversion to stereotyping); dropping them does not change the results.

[24] The mean net evaluation across all groups is .59 (thus an overall positive score across the whole sample), with a standard deviation of .29.

[25] Due to space constraints, we do not present results where we compare two groups of independence supporters across the two experiments (independence supporters versus the rest), but they can be found in Tables C2 and C3 for interested readers.

[26] Tables C2–C3 display the regression results where the coefficient of interest in the baseline OLS specification is the interaction term between treatment assignment x independence view. In those tables we also present main treatment results, but given that the comparison of interest is assessment of traits of people with policy positions, it makes most theoretical sense to consider the conditional role of position on the territorial issue.

The differences across the groups are quite large (all differences are statistically significant at $p < .001$), indicating that territorial views can strongly condition evaluations of those with (dis)similar preferences, as well as evaluations of those who speak different languages at home.

To start, the left panel of the figure shows that individuals who are pro-independence evaluate very positively fellow independence supporters (a score of .84). But there is no statistically significant difference between evaluations by independence supporters of fellow supporters and of those who speak Catalan at home, as the net evaluation of the latter group is also high (.82). As hypothesized, independence supporters have a much lower evaluation of anti-independence people (.32), but their assessment of Spanish speakers is between these two groups at .56. Thus, individuals who support independence do differentiate in their personal evaluations of people in different groups, assessing fellow supporters *and* Catalan speakers similarly, with lower assessments of Spanish speakers, and making the most negative assessments of those with anti-independence positions. Among independence supporters, then, there is a strong conflation between a particular language or ethnic group and the policy position, with respect to the 'in-group' policy position or language.

The right side of the figure shows similar results for those who support the status quo or prefer less autonomy. Those individuals have much higher evaluations of anti-independence people relative to their evaluations of pro-independence people (.69 vs. .28), and the difference between their evaluations of anti-independence people and Spanish speakers is slight (.69 vs. .74, $p < .10$). Their evaluations of the associated language 'out-group', Catalan speakers, is also lower, at .53. Thus, the general stereotype preference ordering of pro-status

quo individuals across the four groups is similar to that of pro-independence individuals. We interpret this as general re-confirmation of Hypothesis 1 (secession-based polarization) as well as confirmation of Hypothesis 3, regarding evaluation of associated language groups. We emphasize that for both pro-independence and status-quo respondents, while their evaluations of the 'other' language group is lower than that of the like-minded policy group, the evaluations of those language groups remain just above the 'neutral' score of .5 (and thus are not 'net negative' stereotypes). There is net-negative stereotyping of groups who differ in territorial preferences.

The middle panel of Figure 3 displays the experimental results for those who prefer greater autonomy but not independence. The stark result is that there are much smaller differences in these individuals' evaluations of the four groups, largely confirming Hypothesis 4. Pro-autonomy individuals do not differentiate between anti- and pro-independence groups (.47 vs. .50), nor between Catalan and Spanish speakers (.68 vs. .66). A notable contrast between these individuals and supporters of the two ends of the policy spectrum is that pro-autonomy individuals consistently rate members of language groups much higher than those holding particular policy positions, regardless of the policy or language group. Such individuals thus have an aversion to the negative stereotyping of members of language groups.

Regarding the follow-up wave, as Figure 3 and Table F1 of the Online appendix also show, there is diachronic stability of the stereotyping across all treatment groups. This combined evidence within wave 2 indicates that in September 2018 the polarization around the independence issue that was measured in December 2017 was still in place.[27] These results

[27] We find inconclusive or null results of moderators of education and length of secession support on affect evaluations.

overall complement the results of our 'neighbours' experiment, corroborating Hypothesis 1 about secession-based polarization. The findings also support the Hypothesis 3 about language spillovers, though the main differences in stereotyping are driven by net-positive stereotyping for like-minded policy groups and their associated language groups, and negative stereotyping of opposing policy groups; there is not much negative stereotyping of language 'outgroups'. Supporters of either ends of the territorial-policy spectrum do not appear to 'lump' individuals who disagree on this issue with the associated language group. As with the previous experiment, there is a notable slight asymmetry, in that again, pro-independence individuals tend to have higher positive-stereotyping of like-minded individuals (and associated language groups) than do pro-status quo individuals.

Discussion

While much research on civil conflict documents the role of group polarization in causing or escalating such conflict, a constructivist approach to studying relevant affective polarization 'as it happens' is empirically difficult. In the secession literature, there is little measurement of social polarization in places where such movements are salient but high-intensity violence has not (yet) occurred. In this article, we argue that the stakes of secession as an issue are likely to engender polarization, and we propose hypotheses of why and which individuals are likely to polarize along secessionist lines, which we test in a salient case. The results of our two-wave survey and embedded experiments indicate polarization around the independence issue in Catalonia, which we measure by comfort and affect towards people who hold similar or different positions, and affect towards associated language groups (though affect and stereotyping based on territorial views remains greater than towards language groups). The

results of our second survey wave also show that there is remarkable persistence in such division. The claims and findings in this article have broad implications for the comparative study of secessionism, conflict, and group polarization.[28] Our findings help connect claims about the demographic structure of a society, polarization, and conflict.

We emphasize that we are not claiming that the secessionist movement caused social polarization, as such a claim would require detailed over-time data on the measures described here, which do not exist.[29] Also, we acknowledge that individual ethnic or nationalist sentiments may explain both secessionist drives and affect or discriminatory attitudes. But we show that the policy of secession, once pursued, can create a form of identity that has social spillovers in terms of affect and stereotyping. Further, this polarization displays over-time persistence and is greater than that of standard, nonterritorial-oriented policy disagreements. We also show that individuals with intermediate policy views (moderates) have smaller differences in affect towards people with distinct territorial views (and members of different language groups), and are less prone to stereotyping those with such differences.

Regarding scope conditions, our results could be applicable to cases in which, as in the case of Spain, secessionist movements are met with countermanding responses from the state. We would expect less polarization in cases in which the state is more open to accommodation to secessionists' demands (for example, the case of Scotland in the United Kingdom prior to Brexit). Social polarization could also be measured and compared in these latter contexts.

[28] For evidence on other policy-based polarization, such as the Brexit referendum, see Hobolt, Leeper & Tilley (2021).
[29] In Spain, there are no data on stereotyping prior to 2017 except for one 1994 CIS survey (Study 2123), but it is a non-longitudinal study and does not capture the relevant stereotyping in Catalonia.

Another conclusion of our research is the relevance of homogeneity within blocs of support for or opposition to secession. We find that the pro-independence bloc in Catalonia is much more homogeneous than the anti-independence bloc. The anti-independence bloc includes those who want Catalonia to have more autonomy within Spain and those who want to either maintain the status quo or reduce the autonomy of the region. We find that the latter subgroup displays similar patterns to the pro-independence group, showing some symmetry in social polarization between the two more extreme positions. The middle (pro-autonomy) group does not exhibit the same patterns of social polarization as the other two. Much of the existing literature on polarization in cross-national conflict studies neglects the fact that individuals may identify with more than one group (Hierro & Gallego, 2018) or may have ambivalent preferences towards secessionist and unionist movements (Balcells & Kuo, 2021). Future research might probe the reasons why those who support an intermediate option have different affect; they may be less politically engaged, less likely to think the territorial-status quo would change, or be less credulous of both sides' campaigns. The consequences of polarization may depend on the direction of such cross-pressured individuals (Muñoz & Tormos, 2015; Rodón & Guinjoan, 2018). As per Mason's perspective on the rise of US partisan polarization (2018), while such individuals currently have cross-cutting identities, further government actions may change the relative weight of these identities and group sorting. Finally, our results suggest that the preferences and views of an intermediate group may help explain lack of escalation, and hence 'negative' cases of conflict.

Replication data: The dataset and do-files for the empirical analysis in this article, along with the Online appendix can be found at https://www.prio.org/jpr/datasets/. All analyses were conducted using Stata.

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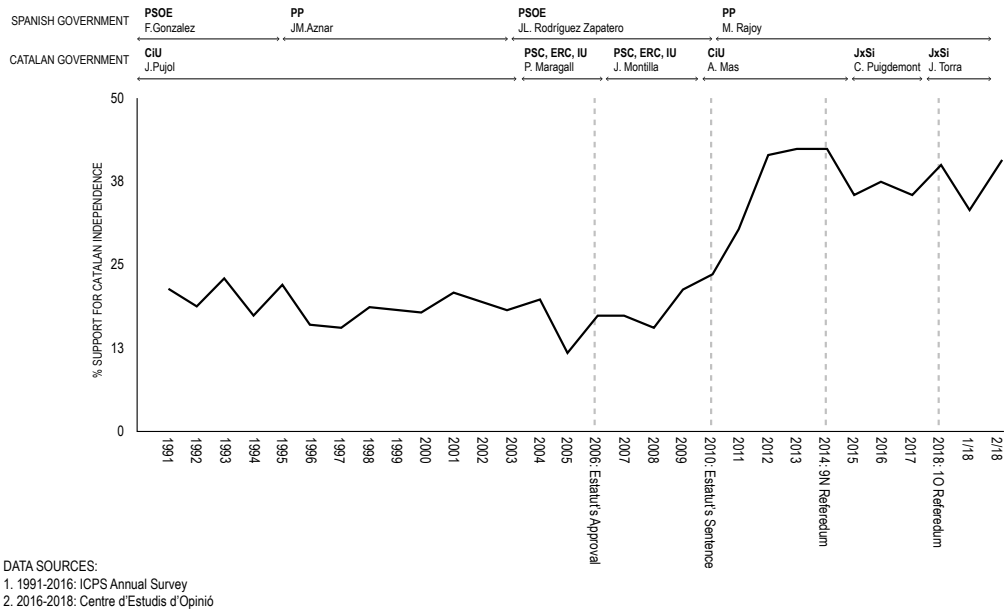


Figure 1. Key recent political events and evolution of support for independence

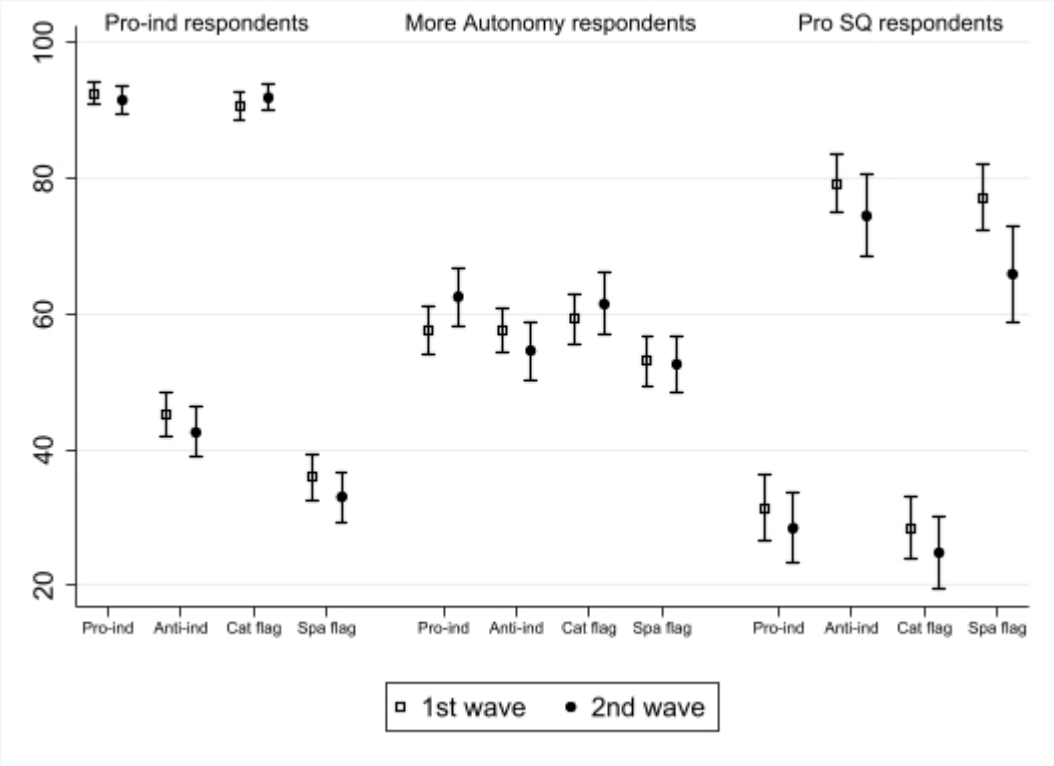


Figure 2. Evaluation of potential neighbours, by territorial preferences (3 groups)

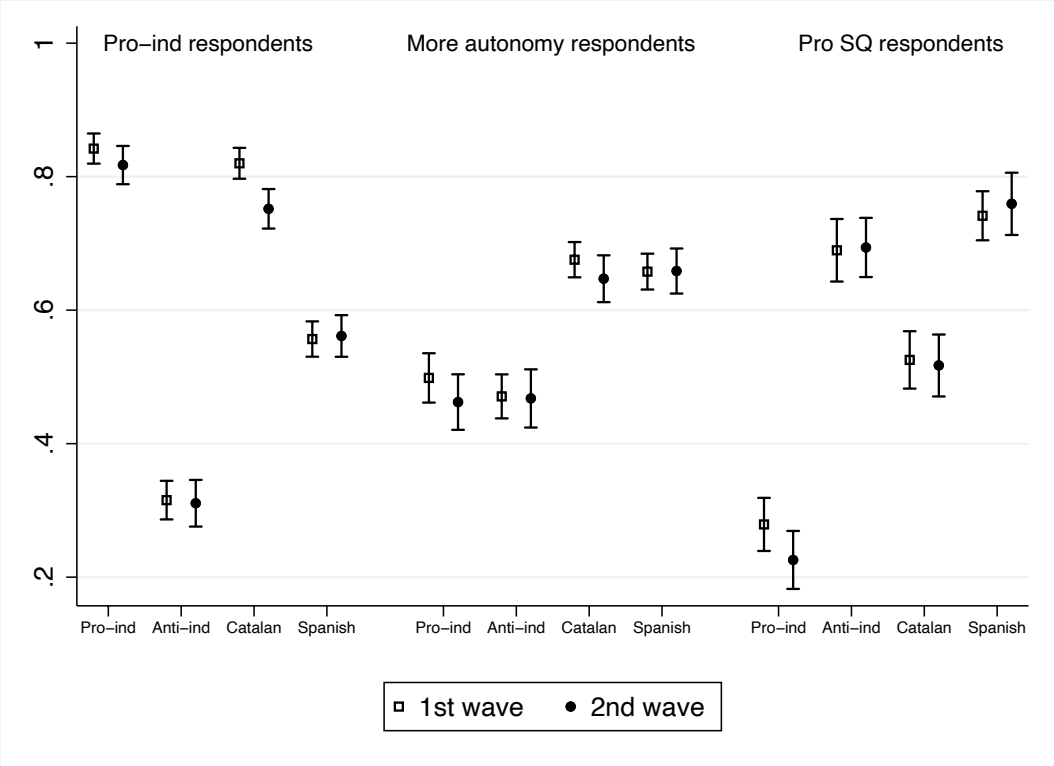


Figure 3. Evaluation of personality traits, by territorial preferences (3 groups)

Supporting Information (SI) Document, "Secession and Polarization: Evidence from Catalonia"

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Part A. Descriptive statistics and preferences

Table A.1. Descriptive statistics

Wave 1

Variable	Obs	Mean	Std. Dev.	Min	Max	%
Female	2,537					48.88%
Age	2,537	43.85	14.60	18	85	
Education_1	2,537					5.91%
Education_2	2,537					37.64%
Education 3	2,537					56.44%
Language Catalan	2,537					36.30%
Language Spanish	2,537					33.50%
Language Catalan&Spanish	2,537					25.70%
Household Size	2,537	2.79	1.16	1	9	
Income	2,537	2612.34	1370.42	0	5500	
Employed	2,537					65.94%
Catalan Identity	2,537	6.83	2.55	1	10	
Catalan Republic	2,537					44.42%
More Autonomy	2,537					35.55%
Status Quo	2,537					16.63%
Less Autonomy	2,537					3.39%

Wave 2

Variable	Obs	Mean	Std. Dev.	Min	Max	%
Female	1,721					47.30%
Age	1,721	46.53	14.40	18	86	
Education_1	1,676					5.07%
Education_2	1,676					37.77%
Education_3	1,676					57.16%
Language Catalan	1,676					37.77%
Language Spanish	1,676					32.58%
Language Catalan&Spanish	1,676					25.78%
Household Size	1,676	2.75	1.14	1	9	
Income	1,721	2545.58	1354.91	0	5,500	
Employed	1,721					93.43%
Catalan Identity	1,721	6.74	2.72	1	10	
Catalan Republic	1,721					46.54%
More Autonomy	1,721					33%
Status Quo	1,721					15.28%
Less Autonomy	1,721					5.17%
Support Immigration	1,721					55.20%

Table A. 2. Territorial preferences across survey waves

		Wave 2			
		Catalan Republic	More autonomy	SQ & less autonomy	Total
Wave 1	Catalan Republic	**720 (93.26)**	46 (5.96)	6 (0.78)	772 (100)
	More autonomy	59 (10.19)	**461 (79.62)**	59 (10.19)	579 (100)
	SQ & less autonomy	8 (2.46)	38 (11.69)	**279 (85.85)**	325 (100)
	Total	787 (46.96)	545 (32.52)	344 (20.53)	1676 (100)

Note: Pearson chi2(4) is 2.1e+03, with Pr= 0.000
Row percentages in brackets

Figure A.1. Distribution of territorial preferences, waves 1-2

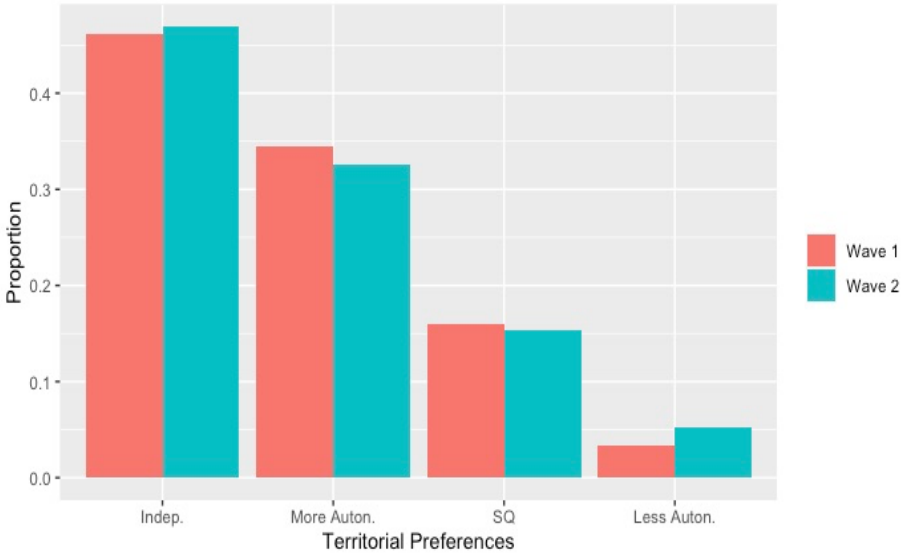


Figure A.2. Family origins and territorial preferences (with 95% confidence intervals), wave 1

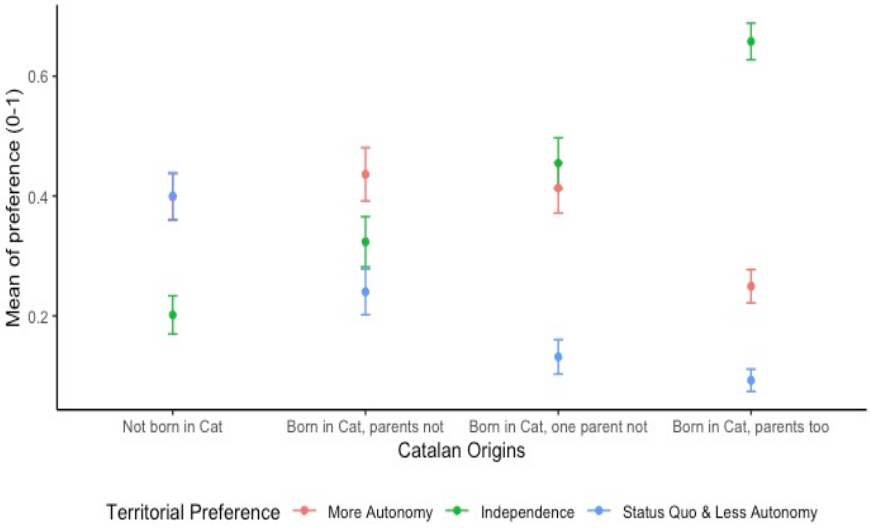
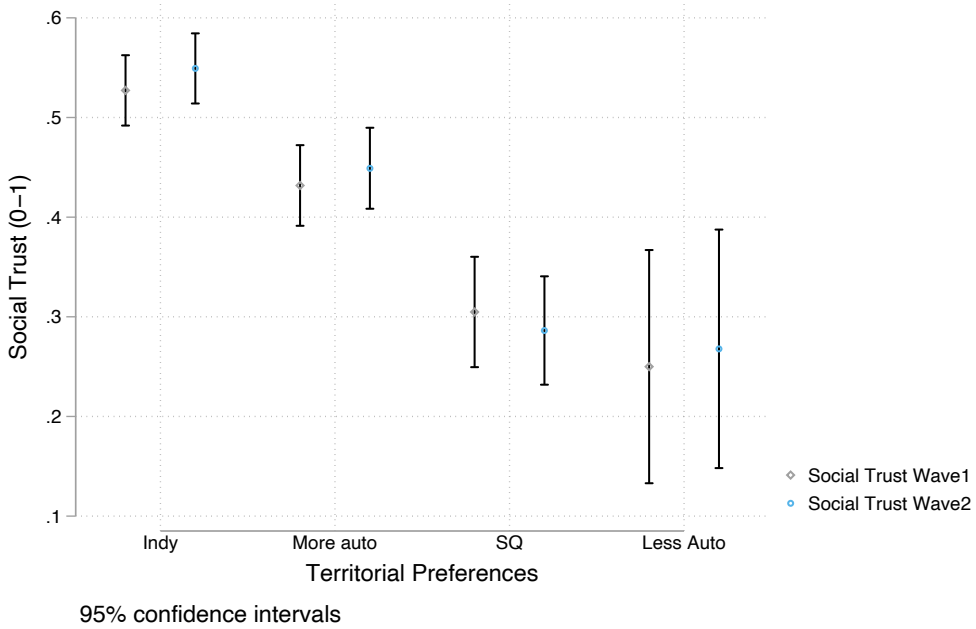
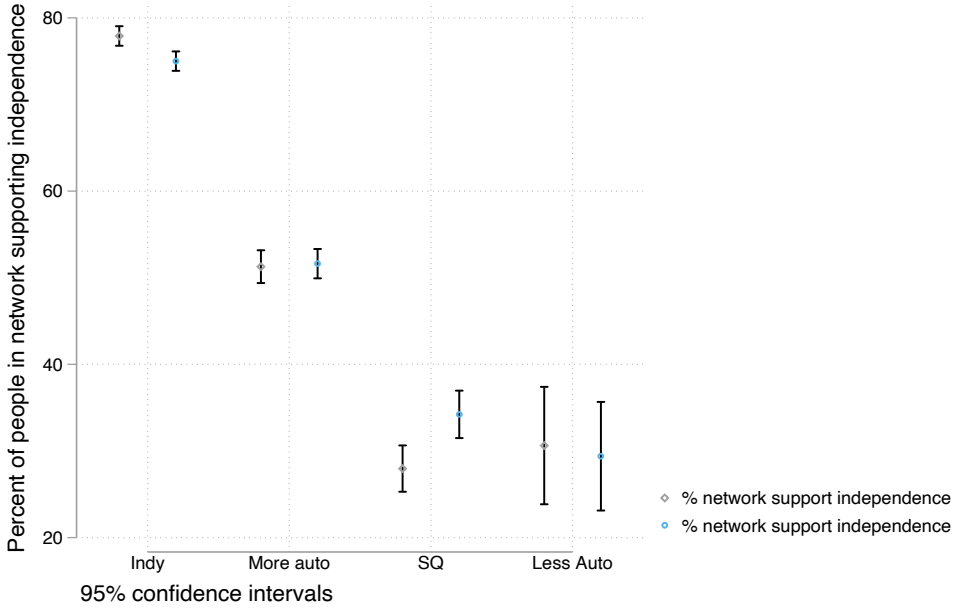


Figure A.3. Social trust by territorial preferences, waves 1-2



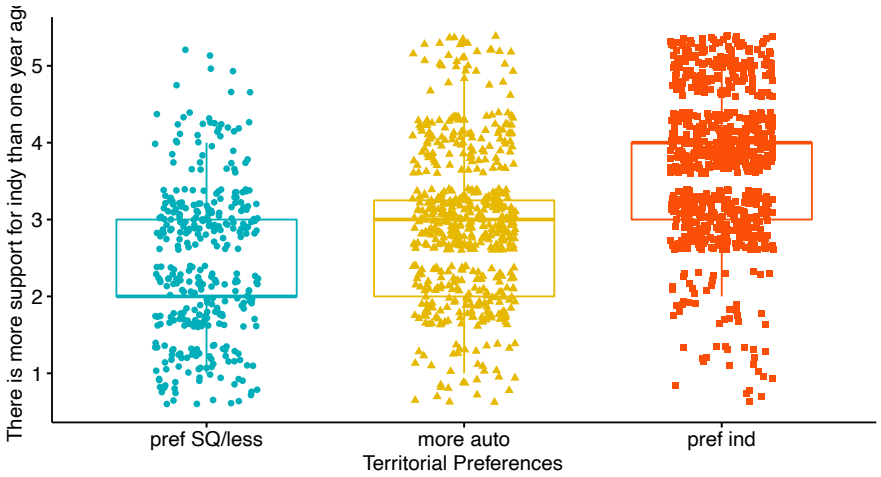
Note: Social trust is measured with a binary variable capturing responses to this question: "Generally speaking, would you say that most people can be trusted, or that one should be careful when dealing with other people? One can trust most people (1); One must be careful when dealing with other people (0).

Figure A.4. Percent of respondent's network supporting independence, waves 1 and 2



Note: Continuous variable (0-100) measured with the following question: "Thinking in terms of your friends and families (people sufficiently close to you so that you would stop to chat for at least a few seconds if you met them in the street). What percentage of them would you say support Catalan independence? (0% would mean none of them, 100% would mean all of them)". We observe that in September 2018 the proportion diminishes among pro-independence respondents while it increases among pro-SQ respondents.

Figure A.5. Self-perception of changes in support for independence in networks, Wave 2



Note: The dependent variable is measured with an ordinal variable capturing responses to this question: "Would you say that the overall proportion of the people in the group above (friends and family you interact with) who support or oppose independence is the same as one year ago, or is it different?
-There is now much less support for independence than there was one year ago (1)
-There is now somewhat less support for independence than there was one year ago (2)
-There is roughly the same amount of support for independence than there was one year ago (3)
-There is now somewhat more support for independence than there was one year ago (4)
-There is now much more support for independence than there was one year ago (5)
We can observe that pro-independence people tend to perceive that there has been an increase in support for independence (although in figure A.8 we find that they think that there is less support among the people in their networks).

Part B. Timeline of key political events in contemporary Catalonia

6 December 1978. A new Spanish Constitution is approved after transition to Democracy

18 December 1979. New Statute of Autonomy of Catalonia is Approved

18 June 2006: A new statute of Autonomy for Catalonia is ratified in a referendum in Catalonia.

July 2010: Spanish Constitutional Court ruling on the Catalan statute of Autonomy. First mass rally in favor of independence in the streets of Barcelona.

20 November 2011: Partido Popular wins the General Election and Mariano Rajoy becomes the Spanish Prime Minister.

11 September 2012: Massive rally in favor of independence during the National Day of Catalonia. Similar rallies occur annually thereafter.

9 November 2014: Non-binding referendum for the Independence of Catalonia (so called 9N) organized by the Catalan government and grassroots organizations. No violent incidents reported.

27 September 2015: Plebiscitary elections in Catalonia. The Together for the Yes (*Junts pel Sí*) coalition wins the majority of seats in the Catalan Parliament.

6-7 September 2017: A set of laws "of disconnection" are approved in the Catalan Parliament

1 October 2017: Self-determination referendum organized by the Catalan government and grassroots organizations. Spanish police violent crackdown of the referendum.

10 October 2017: Catalan premier Carles Puigdemont declares independence of Catalonia but immediately revokes this declaration.

27 October 2017: The Catalan Parliament declares independence of Catalonia and the Spanish senate approves the implementation of article 155 of the Spanish Constitution suspending the autonomy of the region.

21 December 2017: New regional elections in Catalonia, in which pro-independence political parties secure a Parliamentary majority.

1 June 2018: Motion of confidence that removes Mariano Rajoy and Pedro Sanchez becomes the Prime Minister of Spain.

February-June 2019: Trial of nine independence leaders in the Supreme Court of Spain

14 October 2019: Spain's Supreme Court sentences nine Catalan separatist leaders to prison terms of between nine and 13 years on charges of sedition. The ruling that triggered violent and nonviolent protests throughout Catalonia and a police response.

22 June 2021: The Spanish Government led by Pedro Sanchez pardons the nine separatist political and social leaders serving sentences.

September 2021: Catalan premier Pere Aragonès and Spanish prime minister Pedro Sánchez resume negotiation table between the Spanish and Catalan governments.

Part C. Estimation results, Wave 1

Table C.1: Correlates of territorial preferences, wave 1

	(1)	(2)	(3)	(4)
Female	-0.025†	-0.028**	-0.14†	-0.26**
	(0.014)	(0.010)	(0.078)	(0.093)
Age category				
Age 35-44	-0.013	-0.024†	-0.061	-0.24†
	(0.020)	(0.014)	(0.11)	(0.13)
Age 45-54	-0.049*	-0.069**	-0.25*	-0.62**
	(0.020)	(0.015)	(0.11)	(0.13)
Age 55+	-0.0031	-0.056**	-0.013	-0.54**
	(0.019)	(0.014)	(0.10)	(0.13)
Inc quintile				
Quintile 2	0.049*	0.019	0.24*	0.16
	(0.022)	(0.016)	(0.12)	(0.14)
Quintile 3	0.050*	0.013	0.27*	0.100
	(0.022)	(0.016)	(0.12)	(0.14)
Quintile 4	0.032	0.0046	0.19	0.025
	(0.023)	(0.017)	(0.13)	(0.15)
Quintile 5	0.037	0.017	0.17	0.16
	(0.024)	(0.017)	(0.13)	(0.16)
Unemployed	-0.0095	-0.012	-0.059	-0.035
	(0.027)	(0.020)	(0.15)	(0.18)
High Educ	0.015	0.016	0.093	0.13
	(0.015)	(0.011)	(0.083)	(0.098)
Family origins				
R Cat/parents not	0.15**	-0.016	0.73**	-0.12
	(0.022)	(0.017)	(0.12)	(0.14)
R/1 parent Cat	0.26**	0.017	1.30**	0.14
	(0.021)	(0.016)	(0.11)	(0.14)
R/2 parents Cat	0.38**	0.014	2.05**	0.072
	(0.019)	(0.015)	(0.11)	(0.14)
Catalan ID				
Cat ID 2nd quintile		0.12**		1.07**
		(0.031)		(0.27)
Cat ID 3rd quintile		0.29**		2.27**
		(0.022)		(0.22)
Cat ID 4th quintile		0.65**		4.67**
		(0.024)		(0.24)
Cat ID 5th quintile		0.84**		6.80**
		(0.024)		(0.27)
Constant	0.38**	0.13**		
	(0.025)	(0.024)		
cut1			-0.34*	1.18**
			(0.14)	(0.23)
cut2			1.51**	4.28**
			(0.14)	(0.25)
N	2519	2519	2519	2519
R^2	0.161	0.570		

Standard errors in parentheses. Models 1-2 OLS estimation. Models 3-4 ordered logistic estimation.
† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table C.1 presents baseline correlates of territorial preferences from Wave 1. The dependent variable as noted in the main text (p. 19) is support for territorial preferences measured as follows: status quo or less autonomy, more autonomy, or independence. Columns 1-2 present OLS estimations where these territorial preferences are recoded 0-1 (0=status quo or less, .5=more autonomy, 1=independence). Columns 3-4 present ordered logistic estimations (with the highest category indicating independence). All models control for female gender, education (coded as at least some post-secondary schooling 1 and the rest 0), age category (18-34 as baseline, 35-44, 45-54, 55+), unemployment status, income quintile (Q1 as baseline), family origin. For family origin, we use binary indicators of the following categories: respondent and both parents born outside of Catalonia (baseline), respondent born in Catalonia and both parents outside ("R Cat/parents not"), respondent and one parent born in Catalonia ("R/1 parent Cat"), and both parents and respondent born in Catalonia ("R/2 parents Cat").

Models 2 and 4 consider the additional role of self-identified Catalan versus Spanish identity; this was assessed on a 1-10 scale with higher values indicating more Catalan self-identification. The table displays quintiles of this variable. Self-assessed Catalan identification is strongly correlated with greater autonomy and independence preferences. Once this variable is controlled for, family origin is no longer precisely estimated. We caution of course that self-professed identification might be the result of territorial preferences.

The ordered-logit models indicate intermediate Catalan identity (quintile 3) is strongly correlated with support for the intermediate autonomy option; with the other demographic variables at means the predicted probability of this option is .6 (that of independence support is .1 and that of the status quo is .3).

Table C.2. OLS Regression of conditional treatment effect of territorial views on affect towards hypothetical neighbors, Wave 1

	(1) Comfort Baseline (Reference: Anti-indy neighbors)	(2) Comfort Two groups (Reference: Anti-indy neighbors, respondent anti-indy)	(3) Comfort Three groups (Reference: Anti-indy neighbors, respondent pro-autonomy)
Pro-independence neighbors	11.1**	-16.6**	-0.05
	(1.78)	(2.00)	(2.32)
Independentist flag neighbors	11.6**	-17.3**	1.63
	(1.80)	(2.05)	(2.41)
Spanish flag neighbors	-5.54**	-2.77	-4.57†
	(1.82)	(2.04)	(2.39)
Pro-independence (PI)		-19.8**	-12.41**
		(2.17)	(2.26)
PI*Pro-independence neighbors		63.9**	47.33**
		(3.02)	(3.15)
PI*Independentist flag neighbors		63.01**	43.87**
		(3.04)	(3.20)
PI*Spanish flag neighbors		-6.39*	-4.73
		(3.07)	(3.22)
Support SQ (SQ)			21.63**
			(2.87)
SQ*Pro-independence neighbors			-47.8**
			(3.94)
SQ*Independentist flag neighbors			-51.4**
			(4.03)
SQ*Spanish flag neighbors			2.51
			(4.00)
Constant	56.1**	64.9**	57.7**
	(1.28)	(1.44)	(1.68)
N	2537	2537	2537
R^2	0.049	0.332	0.411

Standard errors in parentheses. N for each treatment group is: 621 (anti-independence), 664 (pro-independence), 633 (display Catalan flags), 619 (display Spanish flags)
† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table C2 presents regression models for wave 1 of the neighbor-comfort experiment; the main model of interest is (M3). The dependent variable is comfort towards (measured on a 0-100 scale) towards hypothetical neighbors, depending on the presence of flags or territorial views (see pg. 18-19 of main text). M1 considers just treatment assignment (whether the respondent assesses hypothetical pro-independence neighbors, independentist flag neighbors, and Spanish flag displaying neighbors, with the baseline group as anti-independence neighbors). Model 2 controls for treatment assignment and an interaction term of whether the respondent is pro-independence (PI) and each treatment. Model 3 controls for treatment assignment and an interaction term of treatment assignment and whether the respondent is pro-independence (PI) or pro-status quo (SQ). The baseline territorial preference in M3 is whether the respondent supports autonomy and the baseline group is anti-independentist neighbors.

Table C.3. OLS Regression of stereotypes of individuals with policy views and associated language groups, on conditional treatment effect of territorial views, Wave 1

	(1) Net stereotype score Baseline (Reference: evaluate Spanish speaker)	(2) Net stereotype score Two groups (Reference: evaluate Spanish speaker, anti-indy)	(3) Net stereotype score Three groups (Reference: evaluate Spanish speaker, pro-autonomy)
Evaluate pro-independence	-0.030*	-0.27**	-0.16**
	(0.015)	(0.018)	(0.021)
Evaluate anti-independence	-0.19**	-0.14**	-0.19**
	(0.015)	(0.018)	(0.022)
Evaluate Catalan speaker	0.078**	-0.064**	0.018
	(0.015)	(0.018)	(0.021)
Pro-independence (PI)		-0.13**	-0.10**
		(0.019)	(0.020)
PI*Evaluate pro-independence		0.56**	0.44**
		(0.027)	(0.029)
PI*Evaluate anti-independence		-0.11**	-0.055†
		(0.027)	(0.029)
PI*Evaluate Catalan speaker		0.33**	0.24**
		(0.027)	(0.029)
Support SQ (SQ)			0.084**
			(0.026)
SQ* Evaluate pro-independence			-0.31**
			(0.036)
SQ* Evaluate anti-independence			0.13**
			(0.037)
SQ* Evaluate Catalan speaker			-0.23**
			(0.036)
Constant	0.63**	0.69**	0.66**
	(0.011)	(0.013)	(0.015)
N	2537	2537	2537
R^2	0.111	0.324	0.372

Standard errors in parentheses. N for each treatment group is: 623 (pro-independence), 647 (anti-independence), 618 (speak Catalan), 649 (speak Spanish)

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table C.3 presents the regression models of territorial preferences and group-stereotyping; M3 is the main model of interest. The dependent variable is net positive stereotyping (measured on a 0-1 scale) towards individuals with specified territorial views or languages (see pg. 23 of main text). M1 considers just treatment assignment (whether the respondent has net positive stereotypes of Spanish-speaking individuals as the baseline group, pro-independence individuals, individuals who are anti-independence, and Catalan-speaking individuals). Model 2 controls for treatment assignment and an interaction term of whether the respondent is pro-independence (PI) and each treatment (a binary codification of individual territorial preferences). Model 3 controls for treatment assignment and an interaction term of whether the respondent is pro-independence (PI) or pro-status quo (SQ). The baseline territorial preference in M3 is whether the respondent supports autonomy (thus a trichotomous coding of territorial views), and the baseline group of evaluation is those who speak Spanish at home.

Part D: Estimation results, Wave 2

Table D1: OLS Regression of conditional treatment effect of territorial views on affect towards hypothetical neighbors, Wave 2 (weighted results)

	(1) comfort	(2) comfort	(3) comfort
Pro-independence neighbors	15.4**	8.60**	9.38**
	(2.17)	(3.09)	(3.14)
Independentist flag neighbors	15.4**	8.55**	9.85**
	(2.21)	(3.24)	(3.26)
Spanish flag neighbors	-6.61**	-1.81	-1.06
	(2.09)	(3.11)	(3.15)
Pro-independence (PI)		-11.0**	-10.5**
		(2.95)	(3.00)
PI*Pro-independence neighbors		39.6**	38.9**
		(3.80)	(3.87)
PI*Independentist flag neighbors		40.4**	39.0**
		(3.90)	(3.93)
PI*Spanish flag neighbors		-8.21*	-8.70*
		(4.12)	(4.19)
Support SQ (SQ)		20.4**	20.2**
		(4.02)	(4.06)
SQ*Pro-independence neighbors		-54.6**	-54.5**
		(5.32)	(5.37)
SQ*Ind flag neighbors		-58.3**	-59.9**
		(5.42)	(5.47)
SQ*Spanish flag neighbors		-6.61	-7.23
		(5.80)	(5.82)
Female			2.06†
			(1.22)
Secondary educ			0.054
			(3.26)
Post-secondary			0.27
			(3.27)
Unemployed			1.05
			(2.45)
Income decile			0.39
			(0.25)
Born in Cat, parents not			-1.28
			(2.10)
R/1 parent born in Cat			-2.83
			(1.98)
R/2 parents born in Cat			-1.19
			(1.80)
_cons	52.9**	54.2**	51.7**
	(1.46)	(2.22)	(4.10)
N	1710	1710	1665
R^2	0.085	0.449	0.456

Standard errors in parentheses. Main reference category for columns 1="anti-independence neighbors" treatment. Main reference categories for columns 2-3="anti-independence neighbor" treatment category and "support autonomy" respondents. Reference categories for column 3 demographic variables are: male, primary-education only, employed, not born in Catalonia.

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table D1 above presents the regression models of the neighbor-treatments for wave 2. The dependent variable is affect (measured on a 0-100 scale) towards hypothetical neighbors, depending on the presence of flags or territorial views, with demographic weights (wave 2, September 2018). M1 considers just treatment assignment (whether the respondent assesses hypothetical pro-independence neighbors, independentist flag neighbors, and Spanish flag displaying neighbors, with the baseline group as anti-independence neighbors). Model 2 controls for treatment assignment and an interaction term of whether the respondent is pro-independence (PI) or pro-status quo (SQ); the baseline territorial preference in M2 is whether the respondent supports autonomy. This is the trichotomous coding of territorial preferences. M3 adds controls of baseline demographic variables.

Table D2: OLS Regression of stereotypes of individuals with policy views and associated language groups, on conditional treatment effect of territorial views, Wave 2 (weighted results)

	(1) Net stereotype score	(2) Net stereotype score	(3) Net stereotype score
Evaluate pro-independence	-0.073**	-0.20**	-0.20**
	(0.021)	(0.029)	(0.029)
Evaluate anti-independence	-0.20**	-0.20**	-0.20**
	(0.019)	(0.030)	(0.030)
Evaluate Catalan speaker	0.033*	-0.0099	-0.011
	(0.016)	(0.026)	(0.026)
Pro-independence (PI)		-0.099**	-0.097**
		(0.024)	(0.025)
PI*Evaluate pro-independence		0.46**	0.46**
		(0.036)	(0.036)
PI*Evaluate anti-independence		-0.048	-0.050
		(0.039)	(0.039)
PI*Evaluate Catalan speaker		0.19**	0.19**
		(0.035)	(0.035)
Support SQ (SQ)		0.11**	0.10**
		(0.030)	(0.030)
SQ* Evaluate pro-independence		-0.35**	-0.35**
		(0.044)	(0.044)
SQ* Evaluate anti-independence		0.13**	0.13**
		(0.046)	(0.046)
SQ* Evaluate Catalan speaker		-0.24**	-0.24**
		(0.044)	(0.044)
female			0.025*
			(0.012)
Secondary educ			0.054
			(3.26)
Post-secondary			0.27
			(3.27)
Unemployed			0.014
			(0.026)
Income decile			0.0041†
			(0.0022)
Born in Cat, parents not			0.0015
			(0.018)
Born in Cat, 1 parent also			0.000078
			(0.018)
Born in Cat, 2 parents also			-0.010
			(0.017)
_cons	0.64**	0.67**	0.62**
	(0.011)	(0.018)	(0.037)
N	1665	1665	1665
R^2	0.096	0.376	0.380

Standard errors in parentheses. Main reference category for columns 1= "evaluate Spanish speakers" treatment. Main reference categories for columns 2-3= "evaluate Spanish speakers" treatment category and "support autonomy" respondents. Reference categories for column 3 demographic variables are: male, primary-education only, employed, not born in Catalonia. Sample sizes for 405 for evaluating pro-independence individuals; 433 for evaluating anti-independence individuals; 410 for evaluating Catalan-speaking individuals; 428 for evaluating Spanish speaking individuals.

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table D2 above presents OLS regression results where the dependent variable is the change in net positive stereotyping (measured on a 0-1 scale) towards individuals with specified territorial views or languages (the treatment groups are whether the respondent evaluates stereotypes of Spanish-speaking individuals, pro-independence individuals, individuals who are anti-independence, and Catalan-speaking individuals; see pg. 18-19 of the main text). M1 considers just treatment assignment. Model 2 controls for treatment assignment and an interaction term of whether the respondent is pro-independence (PI) or pro-status quo (SQ); the baseline territorial preference in M2 is whether the respondent supports autonomy. This is the trichotomous coding of territorial preferences. M3 adds controls of baseline demographic variables.

Part E. Results with Alternative Stereotype Measure

Table E1: Stereotype results by condensed net-stereotype measure

	(1) – W1 Net stereotype (NS) score	(2) – W1 NS score	(3) – W1 NS score (4)	(4) – W1 NS score (4)	(5) – W2 NS score	(6) – W2 NS score	(7) – W2 NS score (4)	(8) – W2 NS score (4)
Eval pro-ind ppl	-0.030*	-0.16**	-0.021	-0.14**	-0.073**	-0.20**	-0.069**	-0.20**
	(0.015)	(0.022)	(0.016)	(0.023)	(0.021)	(0.029)	(0.020)	(0.031)
Eval anti-ind ppl	-0.19**	-0.19**	-0.17**	-0.16**	-0.20**	-0.20**	-0.19**	-0.20**
	(0.015)	(0.022)	(0.016)	(0.023)	(0.019)	(0.030)	(0.020)	(0.033)
Eval Cat speaker	0.078**	0.018	0.086**	0.039†	0.033*	-0.0099	0.036†	-0.0084
	(0.015)	(0.021)	(0.016)	(0.023)	(0.016)	(0.026)	(0.020)	(0.027)
Pro-ind (PI)		-0.10**		-0.080**		-0.099**		-0.086**
		(0.020)		(0.022)		(0.024)		(0.025)
PI*Eval pro-ind		0.44**		0.42**		0.46**		0.45**
		(0.029)		(0.032)		(0.036)		(0.039)
PI*Eval anti-ind		-0.054†		-0.080*		-0.048		-0.085*
		(0.029)		(0.031)		(0.039)		(0.042)
PI*Eval Cat speaker		0.25**		0.22**		0.19**		0.17**
		(0.029)		(0.032)		(0.035)		(0.036)
Support SQ (SQ)		0.084**		0.080**		0.11**		0.098**
		(0.026)		(0.028)		(0.030)		(0.033)
SQ*Eval pro-ind		-0.30**		-0.32**		-0.35**		-0.34**
		(0.036)		(0.039)		(0.044)		(0.048)
SQ*Eval anti-ind		0.14**		0.15**		0.13**		0.17**
		(0.037)		(0.040)		(0.046)		(0.051)
SQ*Eval Cat speak		-0.23**		-0.23**		-0.24**		-0.23**
		(0.036)		(0.040)		(0.044)		(0.047)
_cons	0.63**	0.66**	0.61**	0.63**	0.64**	0.67**	0.62**	0.65**
	(0.011)	(0.015)	(0.011)	(0.016)	(0.011)	(0.018)	(0.014)	(0.018)
N	2537	2537	2537	2537	1665	1665	1665	1665
R^2	0.112	0.373	0.093	0.331	0.096	0.376	0.082	0.350

Standard errors in parentheses. W1 = Wave 1; W2 = Wave 2. Estimation procedure same as in Tables SI.C3 and SI.D2. Columns 3,4,7,8 present results with condensed stereotype measure (four adjectives of randomly assigned individuals as reliable, prejudiced, honest, selfish, as opposed to six). † $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table E1 presents the same results as that of C3 and D2, only columns 3,4,7,8 show the results measuring differences in stereotyping of individuals, considering a subset of four distinct adjectives (reliable, prejudiced, honest, selfish). The baseline categories are “pro-autonomy” preference and the experimental group of evaluation of Spanish speakers. The coefficients of interest are the interaction term between territorial preference and treatment assignment. The table indicates similar point estimates of these coefficients.

Part F. Additional results regarding over-time changes

Table F1. Differences between waves in key moderator (territorial views) and outcomes

Treatment assignment	Mean change All	Mean change Pro-indy	Mean change Pro-SQ	Mean change Pro-auto
Independence position	0.02			
Pro-cat indy neighbors	-2.3	-0.6	-3.9	-1
Cat flag neighbors	-0.3	-1.6	-5.8	2.7
Anti-indy neighbors	1.4	1.6	3.2	1
Span flag neighbors	-2.7	1.2	-9.1	-2.8
Pro-indy trait evaluation	-0.02	-0.04	-0.03	0
Anti-indy trait evaluation	0.01	0.01	-0.02	0.04
Cat language speaker evaluation	-0.04	-0.05	-0.01	-0.03
Span language speaker evaluation	0.004	0.02	0	0

Note: Table F1 reports the difference across territorial position (scaled 0-1), and the differences in the dependent variables between wave 1 (December 2017) and wave 2 (September 2018). It reports first difference of dependent variable outcomes by treatment group. Column 1 considers all respondents in both waves. Columns 2-4 consider changes in the dependent variable by the respondent's territorial position, for those respondents who did not change territorial position (conditioning on individuals who had no change in independence position across sample (85% of sample). All variables are scaled 0-1 except for neighbor assessments, which are scaled 0-100.

Table F2. Change in the feeling thermometer towards hypothetical neighbors between the two waves

	(1) Treatment: Pro-independence neighbor	(2) Treatment: Anti-independence neighbor	(3) Treatment: Catalan independentist flag	(4) Treatment: Spanish national flag
Pro-independence	-0.89	2.40	2.25	3.16
	(2.68)	(3.21)	(2.46)	(3.12)
Pro-SQ	-4.30	-1.67	0.26	-6.26
	(3.21)	(4.01)	(3.03)	(3.89)
Constant	1.05	-3.82	0.28	-2.96
	(2.07)	(2.49)	(1.87)	(2.39)
N	422	421	424	398
R^2	0.005	0.001	0.002	0.002

Standard errors in parentheses
† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table F2 above presents OLS regression results where the dependent variable is the difference in affect (measured on a 0-100 scale) towards hypothetical neighbors, across the two waves. Each model presents the results within each treatment group, which remained constant across both waves (whether the respondent assesses hypothetical pro-independence neighbors, independentist flag neighbors, Spanish flag displaying neighbors, anti-independence neighbors). We present the coefficient of the respondent's territorial views, with the baseline as being pro-autonomy.

Table F3. Change in people's evaluation towards groups between the two waves

	(1) Evaluate pro-independence people	(2) Evaluate anti-independence people	(3) Evaluate Catalan speaking people	(4) Evaluate Spanish speaking people
Pro-independence	-0.038	-0.027	-0.0031	0.030
	(0.027)	(0.037)	(0.026)	(0.026)
Pro-SQ	-0.024	-0.042	0.012	0.013
	(0.032)	(0.045)	(0.033)	(0.034)
Constant	2.2e-10	0.031	-0.037^{+}	-0.013
	(0.020)	(0.029)	(0.019)	(0.020)
N	400	432	407	426
R^2	0.005	0.002	0.001	0.003

Standard errors in parentheses
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table F3 presents OLS regression results where the dependent variable is the change in net positive stereotyping (measured on a 0-1 scale) towards individuals with specified territorial views or languages (the treatment groups are whether the respondent evaluates stereotypes of Spanish-speaking individuals, pro-independence individuals, individuals who are anti-independence, and Catalan-speaking individuals; see pg. 18-19 of the main text). Each model presents the results within each treatment group, which remained constant across both waves. We present the coefficient of the respondent's territorial views, with the baseline as being pro-autonomy. The table indicates that relative to pro-autonomy individuals, pro-independence respondents very slightly reduced their positive stereotyping of pro-independence individuals. There were no other precisely estimated changes in affect across the treatment groups.

Part G. Randomization checks

Table G.1. Treatment assignment, neighbors' experiment (Wave 1)

	(1) Anti-indy neighbors	(2) Pro-indy neighbors	(3) Catalan flags	(4) Spanish flags
Support auto	0.024	0.12	-0.15	0.0088
	(0.10)	(0.10)	(0.10)	(0.11)
Support SQ	-0.097	0.069	-0.067	0.093
	(0.13)	(0.12)	(0.12)	(0.12)
Female	0.14	-0.20*	0.063	0.00011
	(0.094)	(0.092)	(0.093)	(0.094)
Unemployed	-0.095	-0.11	0.063	0.14
	(0.18)	(0.18)	(0.18)	(0.18)
Decile	-0.0024	-0.028	0.012	0.019
	(0.018)	(0.017)	(0.018)	(0.018)
Education	0.014	-0.011	0.048	-0.052
	(0.081)	(0.079)	(0.081)	(0.081)
Constant	-1.20**	-0.82**	-1.25**	-1.14**
	(0.22)	(0.21)	(0.22)	(0.22)
N	2519	2519	2519	2519

Standard errors in parentheses. This table displays logistic regressions indicating successful random assignment into the "neighbors" experiment (Wave 1). The dependent variable in each column is assignment into a distinct treatment group.

† $p < 0.1$ * $p < 0.05$, ** $p < 0.01$

Table G.2. Treatment assignment, stereotypes experiment (Wave 1)

	(1) Pro-indy	(2) Anti-indy	(3) Speak Catalan	(4) Speak Spanish
Support auto	0.021	-0.17†	0.098	0.060
	(0.11)	(0.10)	(0.11)	(0.10)
Support SQ	0.16	-0.17	0.16	-0.15
	(0.12)	(0.12)	(0.12)	(0.13)
Female	-0.14	0.019	0.082	0.037
	(0.094)	(0.093)	(0.094)	(0.093)
Unemployed	0.20	0.13	-0.27	-0.087
	(0.17)	(0.17)	(0.19)	(0.18)
Decile	0.0072	-0.0064	0.0079	-0.0082
	(0.018)	(0.017)	(0.018)	(0.017)
Education	-0.093	0.090	-0.023	0.024
	(0.080)	(0.081)	(0.081)	(0.080)
Constant	-0.91**	-1.18**	-1.21**	-1.09**
	(0.22)	(0.22)	(0.22)	(0.22)
N	2519	2519	2519	2519

Standard errors in parentheses. This table displays logistic regressions indicating random assignment into the "stereotypes" experiment (Wave 1). The dependent variable in each column is assignment into a distinct treatment group.

† $p < 0.1$ * $p < 0.05$, ** $p < 0.01$

Table G.3. Treatment assignment, neighbors' experiment (Wave 2)

	(1) Anti-indy neighbors	(2) Pro-indy neighbors	(3) Catalan flags	(4) Spanish flags
Support auto	-0.055	-0.036	0.069	0.022
	(0.13)	(0.13)	(0.13)	(0.13)
Support SQ	-0.13	0.12	0.029	-0.027
	(0.15)	(0.15)	(0.15)	(0.15)
Female	0.11	-0.039	0.035	-0.11
	(0.11)	(0.11)	(0.11)	(0.12)
Unemployed	0.093	0.023	0.032	-0.16
	(0.23)	(0.23)	(0.24)	(0.24)
Decile	0.0063	-0.0075	0.034	-0.035
	(0.022)	(0.022)	(0.022)	(0.022)
Education	-0.043	0.053	-0.050	0.042
	(0.099)	(0.100)	(0.099)	(0.10)
Constant	-1.02**	-1.17**	-1.17**	-1.03**
	(0.27)	(0.28)	(0.27)	(0.28)
N	1665	1665	1665	1665

Standard errors in parentheses. This table displays logistic regressions indicating successful random assignment into the "neighbors" experiment (Wave 2). The dependent variable in each column is assignment into a distinct treatment group.

† $p < 0.1$ * $p < 0.05$, ** $p < 0.01$

Table G.4. Treatment assignment, stereotypes experiment (Wave 2)

	(1) Pro-indy	(2) Anti-indy	(3) Speak Catalan	(4) Speak Spanish
main				
Support auto	0.14	-0.24	0.16	-0.050
	(0.13)	(0.13)	(0.13)	(0.13)
Support SQ	0.23	0.00085	-0.073	-0.15
	(0.15)	(0.15)	(0.15)	(0.15)
Female	-0.21	-0.041	0.13	0.12
	(0.12)	(0.11)	(0.12)	(0.11)
Unemployed	0.087	0.045	-0.17	0.025
	(0.23)	(0.23)	(0.24)	(0.23)
Decile	0.0076	0.0066	-0.028	0.013
	(0.022)	(0.022)	(0.022)	(0.022)
Education	-0.037	-0.034	0.13	-0.056
	(0.10)	(0.098)	(0.10)	(0.098)
Constant	-1.09**	-0.91**	-1.41**	-1.01**
	(0.28)	(0.27)	(0.28)	(0.27)
N	1676	1676	1676	1676

Standard errors in parentheses. This table displays logistic regressions indicating successful random assignment into the "stereotypes" experiment (Wave 2). The dependent variable in each column is assignment into a distinct treatment group.

† $p < 0.1$ * $p < 0.05$, ** $p < 0.01$

Part H. Benchmark tests, Wave 2

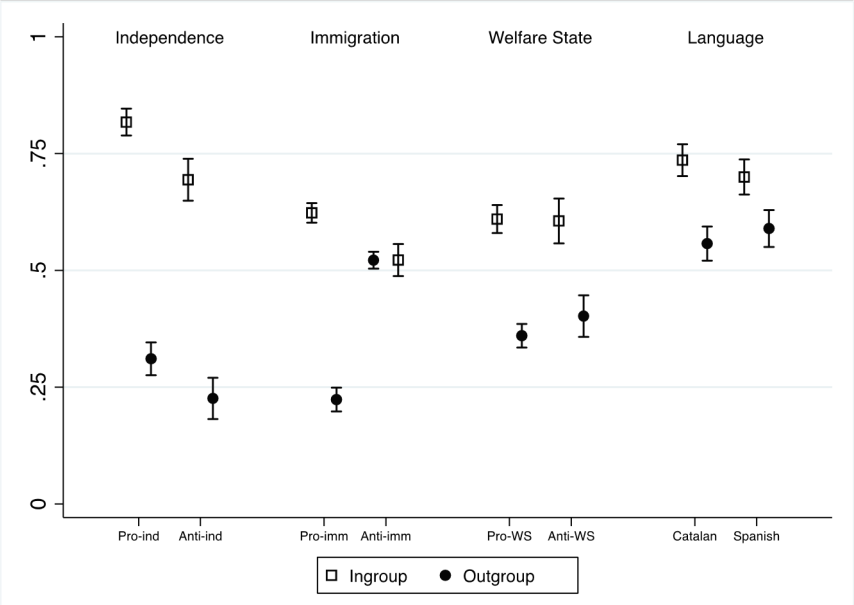
Table H1. Stereotype evaluations by treatment effects, other policy areas (wave 2)

	(1) Immigration	(2) Welfare State
Support immigration	-0.30**	
	(0.018)	
Treatment (pro-immigration)	-0.00032	
	(0.019)	
Treatment * Support Imm	0.40**	
	(0.026)	
Support welfare state		-0.25**
		(0.028)
Treatment (pro-welfare state)		-0.20**
		(0.034)
Treatment * Support WS		0.45**
		(0.039)
Constant	0.52**	0.61**
	(0.013)	(0.025)
N	893	828
R2	.19	.24

Standard errors in parentheses
† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

Note: Table H1 displays OLS regression results from Wave 2, for stereotype evaluations of individuals with policy views (pro or anti) for the issues of immigration and the welfare state, Models 1 and 2, respectively (these stereotype evaluations are scaled 0-1, with higher values indicating greater net positive evaluations). These coefficients are used to generate Figure H1. M1 includes both treatment assignment of being asked to evaluate a pro-immigration individual, if the respondent supports immigration, and the interaction term. M2 does the same but for the welfare state.

Figure H.1. Evaluation of personality traits, by policy preferences (2 groups), Wave 2



Note: "Ingroup" refers to respondent evaluation of hypothetical individual with the same policy preferences or language, with anti-independence individuals coded as supporting the status quo or less. "Outgroup" refers to respondent evaluation of hypothetical individual with the opposing policy preferences or different language.