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Intergroup Contact and Nation Building: Evidence from Military Service in Spain*

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Abstract

We study the long-term effects of intergroup contact on nation building by exploiting a national lottery that randomly allocated conscripts to different military areas across Spain. For men born in regions featuring a strong regional identity, we find that being assigned to military service in a region different from one's region of birth substantially increases self-identification as Spanish and reduces the likelihood of voting for a regionalist party. Moreover, in support of intergroup contact as the main mechanism behind these results, we find that movers are more likely to have friends from another region than nonmovers.

JEL Classification: D02, D71, J15
Keywords: Nation Building, Intergroup Contact, Military Service.

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1 Introduction

In a world where the number of ethnic groups outweighs the number of countries, multiethnic societies are an inescapable reality and are likely to increase through migration movements (Putnam, 2007).[1] Several studies show that ethnically diverse societies are prone to having worse economic outcomes and a higher likelihood of conflict than non-diverse societies.[2] Nevertheless, when ethnically diverse societies succeed in developing policies that build a common national identity, the negative effects of diversity are ameliorated (Miguel, 2004). Hence, understanding how countries can create a sense of collective identity, a process known as nation-building, is especially relevant for societies characterized by ethnic division.

In this paper, we study whether intergroup contact can promote nation-building. Traditionally, two hypotheses about intergroup interaction have been postulated. First, the contact hypothesis states that, under appropriate conditions, contact should reduce the problems of stereotyping, prejudice, and discrimination, therefore fostering interethnic tolerance and solidarity and favoring a shared national identity (Allport, 1954). In contrast, the conflict hypothesis argues that higher intergroup contact can increase competition for limited resources among people from different groups and hence reinforce mistrust outside the group and solidarity within the own group, making the emergence of a shared national identity more difficult (Blumer, 1958).

From an empirical point of view, identifying the effect of contact is a common concern because contact can be endogenous. To address this issue, we exploit the quasi-experimental variation caused by a national lottery that allocated conscripts to different military areas in Spain, a country with historically strong regional identities. From 1987 to 1991, conscripts in Spain entered a national lottery that determined the location in which they would complete their military service. An individual's destination camp depended on his province of residence and date of birth. In practice, this meant that people from the same province in Spain fulfilled their military service duties in different parts of the country, increasing their exposure to colleagues and civilians from other regions. Our empirical strategy therefore relies on comparing the national identity of individuals with a different risk of completing their military service in a region other than their region of birth.

We use three waves (2013, 2015 and 2017) of the General Spanish Social Survey conducted by the Centre for Sociological Research (abbreviated CIS in Spanish). This survey is well suited for our analysis since it contains self-reported preferences on national iden-

[1] The definition of an ethnic group is usually controversial. If we focus on ethnolinguistic groups alone, we must consider that more than seven thousand languages are spoken in 195 countries, as reported by Eberhard, Simons and Fennig (2019).

[2] In particular, the literature has shown that more ethnically diverse societies are associated with lower economic growth and more institutional instability (Easterly and Levine, 1997), the lower provision of public goods (Alesina, Baqir and Easterly, 1999; Desmet, Gomes and Ortuño-Ortín, 2020), a lower quality of government (La Porta et al., 1999), more corruption Glaeser and Saks (2006) and a higher likelihood of war and conflict (Reynal-Querol and Montalvo, 2005; Arbatlı et al., 2015; Michalopoulos and Papaioannou, 2016).

tity and other related outcomes, as well as variables that define the risk of being assigned to a particular region. We combine the surveys with the military service lottery results for the years 1988 to 1992 since this is the period in which the interviewed individuals were drafted. Our primary dependent variable, which measures self-declared identity as Spanish, is a dummy constructed using a five-item Likert scale question in which individuals are asked to declare whether they feel more "Spanish" or "gentilic of their region of residence".

Strikingly, twenty-five years later, comparable men from regions with strong regional identity or weak Spanish identity (WSI) who were assigned to military service outside their region were more likely to identify themselves as Spanish than those who stayed. More precisely, we find that being assigned to a camp outside their region increases their self-reported identity as Spanish by approximately eleven percentage points (or by eighteen percent) among individuals born in regions with a strong regional identity. On the other hand, the effect is not different from zero among men born in regions with a strong Spanish identity (SSI). Moreover, we find that individuals assigned to a camp outside their region are approximately eleven percentage points (sixty percent) less likely to vote for a regionalist party than those assigned to one within their region of birth. These individuals are also more likely to participate in national elections. Therefore, we find an impact on both political attitudes and political behavior.

A potential threat to our identification strategy is that people born in certain months of the same year might differ in their self-reported identity. We rule out this threat by studying women born during those years for whom military service was not mandatory. When we replicate the same exercise with women, we do not find any significant effect of being assigned to military service outside their region.

Finally, we investigate whether intergroup contact can indeed explain this result. We find that individuals who were assigned to another region are sixty percent more likely to report having someone from another region in their inner social circle. This finding is consistent with peers affecting an individuals' national sentiment through intergroup contact.[3]

The case of Spain is uniquely well suited to study the effect of intergroup contact on nation-building. Spain is a multi-linguistic country with historically significant ethno-linguistic cleavages. Approximately twenty percent of the population speaks a language different from Spanish at home (Pew Research Center, 2019). Moreover, the existence of historical regional and peripheral nationalist movements continues to shape the political landscape in Spain, a further manifestation of such cleavages.[4]

Our paper joins a large and growing empirical literature that addresses the effects

[3] We are agnostic to whether this contact occurred only between conscripts or between conscripts and civilians that lived in the military area.

[4] Some of the most relevant episodes in the history of recent Spanish politics have a strong identity component. The most remarkable cases are the terrorist activity carried out by the Basque nationalist group ETA, which killed 829 people between 1968 and 2010, and the constitutional crisis in 2017, which followed after the secessionist attempt in Catalonia and that led to the imprisonment of several members of the Catalan government.

of intergroup contact.[5] A group of papers has explored how individuals who have contact with minorities are more prone to develop future interracial interactions or develop tolerant attitudes and affirmative action principles (Boisjoly et al., 2006; Scacco and Warren, 2018; Merlino, Steinhardt and Wren-Lewis, 2019; Carrell, Hoekstra and West, 2019; Dahl, Kotsadam and Rooth, 2018). More specifically related to our question, Okunogbe (2018), Bazzi et al. (2019) and Kukic (2019) study how interethnic exposure contributes to nation-building. Putting aside the fact that these papers refer to different contexts and institutional settings, our work differs from them in a number of ways. Kukic (2019) exploits historical border changes to show how permanent population movements influenced ethnic diversity and stimulated the formation of national identity. Bazzi et al. (2019) also studied the effects of permanent population movements, finding positive long-term effects on the use of a national language and other behavioral measures from a program that relocated voluntary migrants to outlying islands in Indonesia. Our paper instead finds sustained effects from a short period of living in a different region.[6] Okunogbe (2018) exploits a large-scale program that randomly assigns individuals to different ethnic regions of Nigeria. The results refer to self-reported outcomes and attitudes from the alumni of a particular university and are expressed seven years after the exposure occurred. In this paper, self-reported outcomes and preferences are expressed twenty-five years after the exposure occurred. Since the military service in Spain was mandatory for the whole male population, our study also has advantages in terms of external validity.

Our empirical analysis also relates to a recent body of work that studies how specific policies can shape national identity or contribute to community building (Aspachs-Bracons et al., 2008; Bandiera et al., 2018; Alesina, Reich and Riboni, 2017). A salient aspect of our work in comparison to this literature is that nation building is not an outcome of a policy specifically devised for that purpose but an unintended consequence of its design. Thus, our work is close to several papers that show how certain events have the concomitant effect of fostering nation building (Dell and Querubin, 2017; Depetris-Chauvin, Durante and Campante, 2020; Casas, Curci and De Moragas, 2020).

This paper also relates to the literature that studies the effect of military service on several outcomes (Angrist, 1990; Galiani, Rossi and Schargrodsky, 2011; Card and Cardoso, 2012; Cáceres-Delpiano, 2019) and, specifically, to papers that study the formation of political attitudes and beliefs (Erikson and Stoker, 2011; Samii, 2013; Navajas et al., 2020; Fize and Louis-Sidois, 2020). However, different from this literature, we do not look at the effect of the military service itself but exploit a particular feature of military service in Spain: the regional allocation of conscripts. This approach helps us study the long-run effects of interpersonal contact and uncover potential heterogeneity in the effects of military service.

The remainder of this paper is organized as follows: Section 2 discusses the institu-

[5] Dovidio et al. (2017) provides a review of this literature and its critical developments over the past 20 years.

[6] Twelve months for the individuals born before 1973 and 9 months for younger cohorts.

tional background in detail. Section 3 explains the econometric strategy and the data. Section 4 presents the data analysis and results. Finally, we conclude in Section 5.

2 Institutional background

2.1 Regional and national identities in Spain

A central issue in Spanish politics is the so-called "national question", that is, how to accommodate regional identities into a common national project (Muñoz, 2009). The tension between unity and diversity that characterizes the political landscape in Spain is well reflected in the second article of the Spanish Constitution of 1978: "The Constitution is based on the indissoluble unity of the Spanish nation, the common and indivisible country of all Spaniards; it recognises and guarantees the right to autonomy of the nationalities and regions of which it is composed, and the solidarity amongst them all." While the Constitution does not state the difference between regions and nationalities, nor does it have a list of territories that are considered nationalities, three of them–Catalonia, the Basque Country and Galicia–are considered historical nationalities (Moreno, 2002).[7] These regions have a language other than Spanish (Catalan, Basque and Galician, respectively), secessionist and peripheral nationalist parties with Parliamentarian representation and a large share of the population with strong feelings of regional identity in opposition to the Spanish one. [8]

In addition to these regions, Navarre also features a large share of the population who do not self-identify as Spanish. This is probably driven by the population sharing a Basque identity, a feeling that is particularly strong in the areas that are close to the border with the Basque Country. Not surprisingly, Basque nationalist parties, who argue that Navarre should be part of a broader Basque Country, have a substantial representation in the Navarrese Parliament. Actually, according to the nationalism saliency index, Navarre, together with the Basque Country and Catalonia, is the region in which peripheral nationalism is most salient (Amat, 2012). In the remainder of this article, we will refer to the aforementioned historical nationalities plus Navarre as regions with WSI, and we will refer to the rest of the regions as regions with SSI.[9]

[7] The Spanish Constitution implicitly acknowledges the historical character of certain territories by recognizing, in the Second Interim Provision, the right of these territories to constitute themselves as Autonomous Communities according to an expedited process only if they had approved draft Statutes of Autonomy in the past. Catalonia, the Basque Country and Galicia are the only ones that satisfied this requirement.

[8] In Figure A.1 of the appendix we present the share of citizens with strong regional identity in each of the continental Spanish regions.

[9] The remaining regions (comunidades autónomas) are Andalusia, Aragon, Asturias, the Balearic Islands, the Canary Islands, Cantabria, Castille-La Mancha, Castille and Leon Extremadura, La Rioja, Madrid, Murcia, and Valencia.

2.2 The Spanish mandatory military service

The mandatory military service was abolished in Spain in 2001, putting an end to 230 years of compulsory military service. Although there was always some degree of randomization in the recruitment process, between 1987 and 1991, it was implemented through a public national lottery, which we use as a quasi-experimental device.

During this period, the conscription process consisted of four distinct phases.[10] First, a wide-reaching registration took place at a municipal level every year, in which all individuals had to register themselves approximately two years before their conscription. As a result, provisional lists of potential recruits were constructed.[11] Second, potential recruits had to follow a medical check-up, and after that, a final list was publicly posted with all those who were fit to serve in the military. The third phase was the annual national lottery, which took place approximately one year before the conscription, usually during the second week of November, among those who did not defer the service and were not excluded due to medical reasons.[12] The lottery consisted of selecting one single ball, out of 366, with a specific date. Conscripts whose birthdays were just after the selected date–independent of their year of birth–and before a second date that varied across provinces were consecutively allocated to the army, the navy and, lastly, to the air force.[13,14] For each branch of the military, the specific place of destination could have been a military area outside the province of residence. There were a total of nineteen military areas at the time: ten for the army, four for the air force, four for the navy, and one central jurisdiction. Each of these areas was formed by one or more provinces. This meant that individuals assigned to a military area that did not contain their province of birth had to (temporarily) migrate to fulfill their military duties. This phenomenon is the source of variation that we use in our analysis.[15]

[10] For more details about the military process during this period, see Cáceres-Delpiano (2019).

[11] Individuals who deferred military duties were excluded from these lists. Five circumstances could be adduced to defer the military service: i) family economic support; ii) academic study; iii) another sibling in the army; iv) residing abroad; or v) being elected to a public position by public voting. In a given year, the bulk of deferrals were related to academic study. In 1990, for example, from a cohort of approximately 360,000 individuals, 160,000 were temporally excluded. Of these temporally excluded individuals, 77% were due to the pursuit of academic studies, and approximately 0.4% claimed a conscientious objection.

[12] See an example of the 1989 lottery in Figure A.2 of the appendix.

[13] Provinces are administrative subdivisions with minimal political scope. There are a total of fifty provinces in Spain. The number of provinces varies among the regions to which they belong.

[14] In 1987, the lottery also determined which recruits were released from military duties due to an excess of potential recruits that year.

[15] Note that we do not observe the exact final location of service within each military area, which makes it a noisy measure of migration. Under classical measurement error, our estimate should be seen as a lower bound of the true effect.

3 Empirical strategy and data

3.1 Data

We use three waves of the General Spanish Social Survey (ESGE) conducted by the Centre for Sociological Research (CIS) in Spain. The waves were collected in 2013 (study 2975), 2015 (study 3123) and 2017 (study 3201). The target population is Spanish residents older than eighteen years. For each individual, we have information on socio-demographic characteristics (month, year and province of birth and education), political attitudes (national identity, ideology, and voting), partner characteristics and friend characteristics.[16]

The combined sample has 14,163 individuals born in Spain. We keep only those who were born between September 1968 and December 1973 since they are exposed to the public national lottery. This restriction leaves us with 1,340 individuals, of which 679 are males and the rest are females. Because women were exempt from military duties, we used them as placebo throughout the whole analysis.

To identify the national identity of the respondent, we rely on a Likert five-item scale question in which individuals are asked to rate whether they feel "Only Spanish" (one), "More Spanish than gentilic of the region" (two), "As Spanish as gentilic of the region" (three), "More gentilic of the region than Spanish" (four), or "Only gentilic of the region" (five).[17] From that scale, we construct the dummy variable "Spanish identity" that takes a value of one if the individual responds feeling at least as Spanish as (gentilic of the region) (answers one, two and three on the Likert 5-item scale), and zero otherwise.[18] This variable measures the national identity of the respondent and is the main dependent variable of our paper.

Table 1 shows descriptive statistics for our treated (OUT) and control (IN) groups. There is no statistically significant difference across groups. Approximately 51% of our sample is assigned to a military area outside their own.

3.2 Empirical specification

As mentioned before, from 1987 to 1991, all men in Spain entered a national public lottery that determined where they would do their mandatory military service. Their destination camp was based on a combination of province of residence and date of birth. In practice, this meant that people from the same province would complete their military service in different parts of the country and, importantly, with a majority of colleagues from another province. We use this random assignment of individuals as an exogenous variation in exposure to outer ethnic groups.

[16] Information on friends is available only in the 2013 wave.

[17] This question is also known as the Linz-Moreno question, after the influential work of Juan José Linz and Luis Moreno on decentralization and peripheral nationalism.

[18] The reason for this transformation is that, as Guinjoan and Rodon (2015) point out, the Linz-Moreno question properly captures if one identity is preferred to the other but fails to capture identity intensity.

Table 1: Balanced sample

	In		Out		
	Mean	SD	Mean	SD	Diff.
% feel equal or more Spanish than (gentilic region)	85.0	35.8	84.1	36.6	0.83
% voted last general elections	83.3	37.3	84.1	36.6	-0.76
% voted for regionalist party	8.5	28.0	5.0	21.9	3.48
% born in WSI region	23.3	42.3	22.7	41.9	0.65
% father born in WSI region	16.6	37.2	14.7	35.5	1.83
% mother born in WSI region	16.6	37.2	15.9	36.6	0.70
% single	24.3	43.0	24.6	43.2	-0.34
% with children	72.9	44.5	74.5	43.6	-1.58
% less than high-school	2.8	16.4	2.8	16.7	-0.09
% high-school degree	69.0	46.3	72.6	44.6	-3.63
% tertiary degree	28.2	45.1	24.5	43.1	3.72
Observations	326		353		679

Notes: The sample includes all male individuals born between September 1968 and December 1973 from the three ESGE waves. The last column reports differences in means between men assigned to military service inside or outside of their own region and whether they are statistically significantly different from zero at standard levels.

We consider two main specifications. First,

$$y_{itv} = \alpha_0 + \alpha_1 \, \text{OUT}_{pv} + \theta_v + \alpha_c + \Gamma X_{itv} + \epsilon_{itv}, \tag{1}$$

where y_{itv} is our measure of Spanish identity for individual i in survey year t with birth month/year v. The variable OUT is a dummy that takes a value of one if the individual had to serve in a military area that does not contain his province of birth and zero otherwise.[19] θ_v and α_c are year of birth and region of birth fixed effects, respectively, and X_{itv} are other individual characteristics.[20] Finally, ϵ_{itv} represents the error term.

Note that this empirical specification does not control for whether individuals were granted an exemption of military duties or not. During the period under analysis, only those who were drafted in the year 1988 were granted this option. In fact, we identify only thirty people who, according to the allocation rule, would have been able to avoid military duties.

In a second specification, we allow for a heterogeneous effect for conscripts from regions with WSI and SSI. Our hypothesis is that for a conscript from a region with SSI, contact with conscripts from other regions might not differ from contact with conscripts of the same region because, in the eyes of such conscripts, they are all Spanish. Therefore, the

[19] For each individual, based on the combination of his province of birth and month/year of birth, the probability of conducting military service and the probability of serving outside the individual's region of residence can be constructed. Specifically, those individuals with a probability of service outside their province are defined as migrating due to military service. The same lottery system is used by Cáceres-Delpiano (2019) to examine the effects of completing military service on labor market outcomes.

[20] Specifically, in some of the specifications, we control for whether parents were born in a region with a strong regional identity.

effect of intergroup contact for conscripts from regions with SSI might be lower than for conscripts from regions with WSI.

$$y_{itv} = \beta_0 + \beta_1 \, \text{OUT}_{pv} + \beta_2 \, \text{Birth SSI}_p + \beta_3 \, \text{OUT}_{pt} \times \text{Birth SSI}_p + \theta_v + \alpha_c + \Gamma X_i + \epsilon_{itv} \quad (2)$$

where $\text{Birth SSI}_\text{p}$ is an indicator variable taking a value of one if province p belongs to a region with SSI. As mentioned before, we define as WSI the regions of Catalonia, Basque Country, Navarre and Galicia and all the rest as SSI regions.[21]

The parameters of interest in our analysis are α_1 in equation (1) and β_1 and β_3 in equation (2). First, α_1 represents the change in the probability of expressing Spanish identity due to the contact induced by military service. Second, β_1 and $(\beta_1+\beta_3)$ represent the change in this probability for individuals from regions with WSI and SSI, respectively. Note that information about migration status is not available in the survey. Instead, we infer it from the lottery allocation rule. Therefore, since the actual destination outside their provinces is not observed, our results should be interpreted as intention-to-treat estimates (ITTs).

4 Results

4.1 Main results

Table 2 presents our main results. Column (1) presents the estimate of α_1 in equation (1), while columns (2) onward present the estimates of the parameters of interest in equation (2) for different specifications.

The estimate of α_1 in column (1) reveals that being drafted to military service outside of province of birth does not affect the probability of expressing a stronger regional identity. This lack of effect is explained by the heterogeneity reported in the remaining columns. In general, we find that individuals from regions with WSI are more likely to express a Spanish identity if they were drafted to do the military service in another region. Specifically, the estimates for β_1 show an increase of approximately eleven percentage points in the probability of expressing a Spanish identity, which is stable and consistent across specifications. In other words, being allocated to military service outside one's region of residence is associated with an 18% increase in Spanish identity among individuals from regions with WSI–and therefore a strong regional identity–with respect to the baseline mean. Furthermore, for all specifications, our estimates of β_3 are different from zero; that is, we find robust evidence for a heterogeneous effect of military service on national identity. The estimates of β_3 are negative and have an absolute value similar to that for β_1, which suggests an impact close to zero among individuals from regions with SSI. In fact, as reported at the bottom of Table 2, we fail to reject that the impact of the contact induced by the military service in regions with SSI–and therefore a weak

[21] As a robustness check, we changed the WSI definition to exclude Galicia and/or Navarre, and the results are qualitatively the same. These estimates are reported in Table A.1 in the appendix.

regional identity, $\beta_1 + \beta_3$–is different from zero.

Table 2: The effect of being assigned to military service outside one's own region on Spanish identity

	(1)	(2)	(3)	(4)	(5)
Out	0.003	0.106**	0.108**	0.108**	0.123**
	(0.029)	(0.052)	(0.052)	(0.052)	(0.051)
Birth SSI		0.420***	0.369***	0.360***	
		(0.043)	(0.051)	(0.051)	
Out x Birth SSI		-0.126**	-0.128**	-0.119**	-0.153**
		(0.060)	(0.060)	(0.060)	(0.060)
Observations	679	679	679	679	679
Mean dep. WSI	0.610	0.610	0.610	0.610	0.610
Sum. coefs.		-0.020	-0.020	-0.011	-0.030
F-stat		0.450	0.452	0.140	0.962
p-value		0.502	0.502	0.708	0.327
Parents WSI			Yes	Yes	Yes
FE year				Yes	Yes
FE region					Yes

Notes: Each column corresponds to a different model specification, starting from an OLS with no controls in column 1. The outcome is an indicator variable taking a value of one if the individual feels that his Spanish identity is greater than or equal to his regional identity. Birth SSI is a dummy variable equal to one if the individual was born in a region with SSI. Out is a dummy variable equal to one if the individual was assigned to military service outside his own region. Standard errors are in parentheses. $***p < 0.01, **p < 0.05, and *p < 0.1$

In Table 3, we further investigate the potential heterogeneous impact of the induced contact associated with military service. First, when we restrict the analysis to individuals from regions with WSI, column (1), the magnitude is very close to the one estimated in the previous table, although not statistically significant due to the lower number of observations. In column (2), we restrict the sample to individuals who resided in their province of birth at the time of the survey. Since we do not have direct information about the place of service or residence at the time of conscription, our estimates are subject to a degree of measurement error. This error should be minimized for the sample of individuals residing in their province of birth. Indeed, our estimates are very similar to those from Table 2. In column (3), we restrict the sample to individuals with less than tertiary education. These individuals are more likely to be affected by the lottery since they could not postpone their military service due to the pursuit of academic studies.[22] Consistent with this idea, we observe a more precise estimate among individuals in regions with WSI but still not significant for regions with SSI. Specifically, for regions with WSI, being assigned to another region through the lottery increases Spanish identity by approximately

[22] Academic studies were the most common exception used to delay military service. For details, see footnote 11.

fifteen percentage points. Despite the gain in precision of the estimates, the overall conclusion across the three different samples is the same. While the contact induced by military services increases Spanish identity, the impact is not significant in regions with SSI.

Finally, in column (4), we repeat the analysis for the sample of women. Given that only the male population was subject to mandatory military service, a natural placebo analysis comes from the female population. As expected, for the female sample, we observe not only an insignificant effect but also magnitudes that are considerably smaller than those observed for the male sample. This evidence supports that our findings do not capture other time-varying effects during the time of the lottery that affected individuals differently depending on their date or region of origin.

Table 3: Robustness checks

	(1)	(2)	(3)	(4)
	Only WSI	Non-migrant	Low Educ	Women
Out	0.087	0.134**	0.149**	0.040
	(0.077)	(0.059)	(0.060)	(0.054)
Birth SSI		0.416***	0.324***	0.297***
		(0.058)	(0.060)	(0.053)
Out x Birth SSI		-0.148**	-0.145**	0.022
		(0.068)	(0.069)	(0.064)
Observations	172	555	499	661
Mean dep. WSI	0.610	0.600	0.674	0.600
Sum. coefs.		-0.014	0.004	0.062
F-stat		0.176	0.015	3.384
p-value		0.675	0.903	0.066

Notes: Each column corresponds to a different sample. The first one keeps only individuals born in regions with WSI. The second column keeps only those who, at the time of the survey, resided in the same region in which they were born. Column three excludes individuals without tertiary education. Finally, column 4 performs a placebo test on women, who did not participate in the lottery. The outcome is an indicator variable taking a value of one if the individual feels that his Spanish identity is greater than or equal to his regional identity. Birth SSI is a dummy variable equal to one if the individual was born in a region with SSI. Out is a dummy variable equal to one if the individual was assigned to military service outside his own region. Standard errors are in parentheses. $***p < 0.01, **p < 0.05, and *p < 0.1$

4.2 Electoral impact

The estimates above demonstrate that individuals who were assigned to military service outside their own region were more likely to express a Spanish national identity 25 years later. However, one may wonder whether this change in identity sentiment is reflected in actions. In this section, we examine the effects of the lottery on voting behavior. Our surveys have information on whether individuals voted in the past Spanish general

elections and, if so, for which party.[23] We use this information to construct two electoral outcomes: turnout and votes for regionalist parties. We coded as regionalist those parties that ran only in their region, did not form coalitions with other national parties, and defined themselves either as regionalist or nationalist of their region.[24]

Table 4 reports estimates of (2) on these outcomes. In Column (1), we observe that individuals from WSI regions assigned to military service outside their region are approximately eleven percentage points more likely to have voted in the Spanish general elections than those who were not. In column (2), we observe that these individuals are also eleven percentage points less likely to have voted for a regionalist party. These results are consistent with our previous findings on Spanish identity and are of similar magnitude. Furthermore, we find no effects for female individuals (columns 3 and 4).

Table 4: The effect of being assigned to military service outside one's own region on voting behavior in the most recent general elections

	Males		Females	
	(1)	(2)	(3)	(4)
	Voted	Voted Regionalist	Voted	Voted Regionalist
Out	0.115*	-0.107***	-0.032	-0.007
	(0.060)	(0.030)	(0.052)	(0.029)
Out x Birth SSI	-0.140**	0.096***	0.023	0.007
	(0.070)	(0.035)	(0.062)	(0.035)
Observations	676	676	655	655
Mean dep. WSI	0.813	0.181	0.836	0.137
Sum. coefs.	-0.024	-0.011	-0.010	0.000
F-stat	0.441	0.366	0.077	0.000
p-value	0.507	0.546	0.782	0.989

Notes: Columns 1 and 2 restrict the analysis to males, while columns 3 and 4 use only females (placebo). All models include fixed effects for year and region of birth. The outcome for columns 1 and 3 is an indicator variable taking a value of one if the individual voted, while that for columns 2 and 4 is an indicator variable taking a value of one if the individual voted for a regionalist party. Null and non-voters are included as zero. Birth SSI is a dummy variable equal to one if the individual was born in a region with SSI. Out is a dummy variable equal to one if the individual was assigned to military service outside his own region. Standard errors are in parentheses. $***p < 0.01, **p < 0.05, and *p < 0.1$

[23] Individuals in the 2013, 2015 and 2017 waves declared their vote, respectively, in the 2011, 2015 and 2016 Spanish general elections.

[24] The list of regionalist and other (Spanish) parties according to the previous criteria is available in Table A.2 of the Appendix. In the same table, we also propose a weaker and a stronger condition of being in the regionalist category. Table A.3 of the Appendix shows that the results in this section are qualitatively the same across different definitions for "regionalist party".

4.3 Potential mechanisms

Thus far, we have found that when assigned to military service in another region, individuals coming from a region in which there is a strong regional identity report a stronger attachment to Spain in terms of both self-identification and voting behavior. In this section, we shed some light on the potential mechanisms at play.

The first mechanism that crosses one's mind when analyzing identity formation with military data is the direct impact that military service can have on subsequent feelings of identity. Given the role that militaries play in the political history of nations and the fact that they are usually invoked by governments as institutions of national pride, a nation's military is hardly a neutral institution. Hence, it is reasonable to expect that military conscription has effects on an individual's national identity either through engagement or indoctrination mechanisms.[25] However, although we do not discard that military service itself can have an effect on an individual's national identity, the source of variation that we exploit rules this out as a potential interpretation for our findings. Our estimates come from exploiting the difference between movers and stayers from different regions, where both types are equally likely to serve in the military. In other words, the design of our experiment controls for the potential effects that military service can have by itself.

The mechanism behind our findings has to run through the random displacement of some individuals to another part of the country, where they necessarily will spend some time interacting and working with people from other regions.[26] In such circumstances, exposure to individuals from other regions may influence movers' feelings of identity, strengthening the sense of a shared national identity.[27] This is the explanation that we have brought into contention throughout the text inasmuch as we believe it is the one most consistent with the source of variation that we exploit. To further explore this hypothesis, we study the effects of being assigned to another region on friendship formation. Having friends from another region is an indicator that conscripts had contact with colleagues and civilians from other regions.

Table 5 reports estimates for equations (1) and (2) in Columns (1) and (2), respectively, using an "outside friendship" dummy as a dependent variable, which takes a value of one if the individual declared that at least one person among his five closest friends or partner was born in a different region and zero otherwise. According to the estimates in column (1), being allocated to military service outside the region of residence increases the probability that an individual reports at least one person in their inner circle who was

[25] This mechanism would be consistent with the findings of some of the literature cited above, which has explored the effects of military conscription on other aspects of individuals' mindset. See Navajas et al. (2020) for the effects on personality traits and beliefs and Fize and Louis-Sidois (2020) for the effects on political attitudes.

[26] Because the allocation takes place at the age of eighteen, for most of these individuals, this is likely to be the first time outside their own region.

[27] One may consider that the displacement of individuals to another region not only changes their exposure to individuals from other groups but also to other parts of the environment (e.g., institutions). We can incorporate this possibility in our model by considering intergroup contact in a broader sense, one that includes exposure to any element of the outside group.

born in a region other than their own by eighteen percentage points. This is equivalent to an increase of approximately 60% with respect to the sample mean. In contrast to the previous estimates, the estimates of β_3 cannot reject a homogeneous effect across regions of birth. Needless to say, this finding simply reflects that friendship formation occurs regardless of the origins of the conscripts.

Table 5: Outside friendship

	Males		Females	
	(1)	(2)	(3)	(4)
Out	0.185***	0.112	0.045	-0.062
	(0.065)	(0.133)	(0.066)	(0.111)
Birth SSI		-0.059		-0.048
		(0.101)		(0.095)
Out x Birth SSI		0.097		0.163
		(0.151)		(0.136)
Observations	211	211	220	220
Mean dep.	0.313	0.313	0.345	0.345
Sum. coefs.		0.209		0.101
F-stat		7.804		1.582
p-value		0.006		0.210

Notes: The dependent variable is a dummy equal to one if at least one person in the inner circle of individual i was born in a different region. Birth SSI is a dummy variable equal to one if the individual was born in a region with SSI. Out is a dummy variable equal to one if the individual was assigned to military service outside his own region. Standard errors are in parentheses. $***p < 0.01, **p < 0.05, and * p < 0.1$

5 Concluding remarks

In this paper, we offer new evidence on how intergroup contact can contribute to nation-building. We exploit the rules for the regional allocation of conscripts in the Spanish military service as a large-scale quasi-natural experiment. Men were assigned to different military camps across Spain using a nationwide lottery system. In cases in which this camp was outside the individual's region of residence, conscripts were forced to move and interact with individuals from other regions during one year of military training. We find that individuals from regions with a strong regional identity who were assigned to military service in another region were, many years later, more likely to identify themselves as Spanish than their counterparts who stayed in their region of residence. Importantly, they were more likely to participate in national elections and less likely to vote for a regionalist party.

Our source of variation is consistent with the hypothesis that intergroup contact contributed to shaping the national identity of conscripts. We explore whether this finding

is in agreement with the effects of the allocation rules on friendship formation. We find that individuals who were assigned to military service in another region are more likely to have someone from another region in their inner friendship circle. In view of this result, we conclude that intergroup contact, even if it occurs during a relatively short period of time, might have strong and long-lasting effects on people's identities.

The findings in this study come in the context of calls for more research on how integration policies may be used to build collective identities and address legacies of regional and ethnic divisions. Although we provide suggestive evidence that intergroup contact is the mechanism that explains the success of these policies, more research on how intergroup contact can be efficiently exploited in large-scale settings is needed. Our study is a first step in this direction. In contrast to previous literature, the policy that induces intergroup contact in this study–the configuration of military service–affected most of the male population in the country, not only certain, very specific groups (e.g. students or work colleagues). This leads us to believe that similar long-run effects could be achieved through other large-scale policies that also yield contact between different groups, such as educational exchanges, national social services or measures that foster internal labor mobility. In this regard, the acclaimed success of recent experiences, such as the Erasmus program–the popular European Union student exchange program–could be achieved through policies addressed to broader audiences, specifically in contexts with persistent regional and ethnic divisions.

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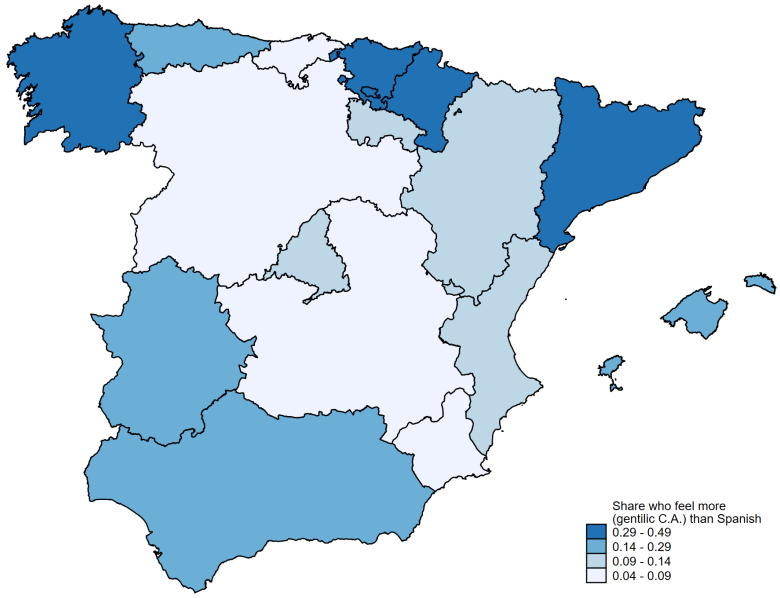
A Appendix

Table A.1: Robustness of the national identity results to different definitions of WSI

	(1) BC+CA+NA+GA	(2) BC+CA+NA	(3) BC+CA
Out	0.108**	0.200***	0.160***
	(0.052)	(0.057)	(0.062)
Out x Birth SSI	-0.119**	-0.218***	-0.181***
	(0.060)	(0.063)	(0.068)
Birth SSI	0.360***	0.397***	0.364***
	(0.051)	(0.051)	(0.054)
Observations	679	679	679
Mean dep. WSI	0.610	0.524	0.519
Sum. coefs.	-0.011	-0.018	-0.021
F-stat	0.140	0.407	0.574
p-value	0.708	0.524	0.449

Notes: Each column corresponds to a different definition of WSI. Column 1 is our base specification, where the WSI regions are the Basque Country (BC), Catalonia (CA), Navarre (NA) and Galicia (GA). In column 2, we consider Galicia as an SSI region, and in column 3, we also add Navarre to the regions with SSI. Birth SSI is a dummy variable equal to one if the individual was born in a region with SSI. Out is a dummy variable equal to one if the individual was assigned to military service outside his own region. All models include year of birth fixed effects and controls for whether parents were born in a region with WSI. Robust standard errors are in parentheses. $***p < 0.01, **p < 0.05, and *p < 0.1$

Figure A.1: Share of citizens who feel more gentilic of their region than Spanish



Notes: Own calculations based on CIS Estudio 2211 - Barometro de Marzo (1996)

Figure A.2: Example of the National Public Lottery

GERONA

DEMARCACION TERRITORIAL	FECHA DE NACIMIENTO MES-DIA-ANO
E.T.-ZONA CENTRO	DEL 3-AGO AL 18-SEP
E.T.-REGION P. ORIENTAL	DEL 9-SEP AL 10-ABR
E.T.-ZONA DE BALEARES	DEL 10-ABR AL 18-ABR
E.T.-ZONA DE CANARIAS	DEL 18-ABR AL 24-ABR
E.T.-REGION SUR (CEUTA)	DEL 24-ABR AL 9-MAY
E.T.-REGION SUR (MELILLA)	DEL 9-MAY AL 21-MAY
E.A.-PRIMERA R. AEREA	DEL 21-MAY AL 3-JUN
E.A.-TERCERA R. AEREA	DEL 3-JUN AL 21-JUN
E.A.-Z. AEREA DE CANARIAS	DEL 21-JUN AL 25-JUN
F.N.-Z.M. DEL ESTRECHO	DEL 21-JUN AL 7-JUL
F.N.-Z.M. DEL MEDITERRANEO	DEL 7-JUL AL 2-AGO
F.N.-Z.M. DE CANARIAS	DEL 2-AGO AL 2-AGO

Notes: 1990 replacement lottery for the province of Gerona, published in Novermber 1989.

Table A.2: Classification of parties

Election year	**Regionalist 1**	**Other Parties**
2011	CIU, Amaiur, PNV, ERC, BNG, Geroa Bai, CC and FAC.	PP, PSOE, IU (with local alliances), UPyD and EQUO.
2015	ERC, DiL, PNV, EH Bildu and CC.	PP, PSOE, C's, Podemos (with local alliances) and IU.
2016	ERC, CDC, PNV, EH Bildu and CC.	PP. PSOE, Unidos Podemos (with local alliances) and C's.
Election year	**Regionalist 2**	**Other Parties**
2011	CIU, Amaiur, PNV, ERC, BNG and Geroa Bai.	PP, PSOE, IU (with local alliances), UPyD, EQUO, CC and FAC..
2015	ERC, DiL, PNV and EH Bildu.	PP, PSOE, C's, Podemos (with local alliances), IU and CC.
2016	ERC, CDC, PNV and EH Bildu.	PP. PSOE, Unidos Podemos (with local alliances), C's and CC.
Election year	**Regionalist 3**	**Other Parties**
2011	CIU, Amaiur, PNV, ERC, BNG, Geroa Bai, CC, FAC, ICV and Compromis.	PP, PSOE, IU (without local alliances), UPyD and EQUO (without local alliances).
2015	ERC, DiL, PNV, EH Bildu, CC, En Marea, En Comu, Compromis.	PP, PSOE, C's, Podemos (without local alliances) and IU.
2016	ERC, CDC, PNV, EH Bildu, CC, En Marea, En Comu and Compromis	PP. PSOE, Unidos Podemos (without local alliances) and C's.

Notes: We consider all parties with representation in the Spanish Congress. CIU, ERC, DiL and CDC are Catalan nationalist parties. Amaiur, PNV, Geroa Bai and EH Bildu are Basque nationalist parties, while Geroa Bai runs only in the region of Navarre. CC is a Canarian regionalist party. FAC is an Asturian regionalist party. PP, PSOE, IU, UPyD, EQUO, Podemos and Unidos Podemos are parties present throughout the whole Spanish territory. ICV is a Catalan party that ran in a coalition with IU. Compromis is a Valencian party that ran in a coalition with EQUO in 2011, with Podemos in 2015 and with Unidos Podemos in 2016. En Comu is the Catalan alliance between IU and Podemos in 2015 and Unidos Podemos in 2016. En Marea is the Galician alliance between IU and Podemos in 2015 and Unidos Podemos in 2016.

Table A.3: Robustness of the voting results to different definitions of regionalist parties

	(1) Regionalist 1	(2) Regionalist 2	(3) Regionalist 3
Out	-0.107***	-0.109***	-0.129***
	(0.030)	(0.029)	(0.034)
Out x Birth SSI	0.096***	0.105***	0.115***
	(0.035)	(0.033)	(0.040)
Observations	676	676	676
Mean dep. WSI	0.181	0.181	0.205
Sum. coefs.	-0.011	-0.004	-0.014
F-stat	0.366	0.048	0.438
p-value	0.546	0.826	0.509

Notes: Each column corresponds to a different definition of regionalist parties. Column 1 is our base specification, using the definition Regionalist 1. Column two uses Regionalist 2, a more conservative definition, and column 3 uses Regionalist 3, the broadest definition with more parties. All models include fixed effects for year and region of birth. Null and non-voters are included as zero in all regionalist definitions. Birth SSI is a dummy variable equal to one if the individual was born in a region with SSI. Out is a dummy variable equal to one if the individual was assigned to military service outside his own region. Standard errors are in parentheses. $***p < 0.01, **p < 0.05, and * p < 0.1$