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State formation, social unrest and cultural distance

Brigandage in post-unification Italy

Giampaolo Lecce¹ · Laura Ogliari² · Tommaso Orlando³

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Abstract

What determines violent reaction during state formation processes? To address this question, we exploit the uprisings that occurred when southern Italy was annexed to Piedmont during Italian unification in the 1860s. We assemble a novel dataset on episodes of brigandage, a form of violent rebellion against the unitary government, and on pre-unification social and economic characteristics of southern Italian municipalities. We find that the intensity of brigandage is *ceteris paribus* lower in and close to settlements of Piedmontese origin. We argue that geographical distance from these communities is a proxy for cultural distance from the Piedmontese rulers. Thus, our results suggest that, in the context of state formation, cultural proximity to the new ruler reduces social unrest by local communities. After ruling out alternative mechanisms consistent with the economic literature, we provide suggestive evidence of cultural persistence and diffusion in our context, and discuss two possible culture-based drivers of our results: social identification with the Piedmontese rulers, and a clash between local values and some specific content of the new institutions.

Keywords Cultural diffusion · Culture · Institutions · Social unrest · State formation

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1 Introduction

The analysis of historical state formation processes may be a challenging task. Yet, it may be useful in uncovering patterns relevant to the contemporary world. Indeed, some issues at the forefront of current political agendas in several countries may be traced back to ‘flaws’ in state formation processes (Tilly 1975). Of particular interest are the cases in which state formation encountered violent resistance by local population. The ensuing social unrest has been shown to increase uncertainty, decrease investment in human and physical capital (Rodrik 1999; Alesina and Perotti 1996) and lower trust in the institutions (Kijewski and Freitag 2018) thereby harming state-society relations and potentially eroding the perceived legitimacy of the newly-formed state. However, there is no systematic empirical evidence on the forms and causes of local populations’ reactions to state formation processes. In particular, finding a suitable environment in which to measure the intensity of the rebellion to that process and identify its drivers is a major empirical difficulty.

This paper addresses these challenges by investigating a unique historical context: the annexation of southern Italy into the new Italian kingdom during the national unification process (1860–1870). This allows us to empirically assess the determinants of the short-term reaction of local populations to a state formation process. Two features of this environment make it an ideal setting for our analysis: the occurrence of a clear instance of state formation and the presence of measurable local resistance to the new rule. Italian unification was an all-encompassing process. It entailed an initial military occupation of southern Italy by the state of Piedmont, which led the unification process. It was carried out through the implementation of nation-building policies, as well as the imposition of the Piedmontese institutional framework on the annexed territories. This was not limited to specific laws, but extended to the entire administrative complex, organization, personnel, and practices.¹

As for measuring local reactions, we analyze a wave of violent popular unrest, known as *brigandage*, that took place in southern communities during the Italian unification process. Using a unique dataset on brigandage episodes at the municipal level, as well as information on pre- and post-unification socioeconomic variables, we provide the first municipal-level quantification of the intensity of social unrest induced by this instance of state formation. We exploit variation in the origins of local communities in southern Italy. In particular, there exist in these regions communities founded by Piedmontese settlers centuries before the events we describe (for brevity, we call them “Piedmontese communities” or “enclaves”). We find that social unrest was lower in these settlements and in communities close to them. We interpret this result as evidence that cultural proximity to Piedmont favored the acceptance of the Piedmontese and their rule. After excluding other potential drivers of brigandage, we provide and discuss suggestive evidence that cultural proximity

¹ During the period we study, Piedmont was characterized by a liberal, French-type organization of the state, while southern Italy was run under a more traditional, Spanish-type system. However, one should not think of the two polities as being at vastly different stages of “democratic” development: Piedmont had only recently turned into a constitutional monarchy. Nor can a clear hierarchy be found in terms of economic organization: on this, we direct the reader to Daniele and Malanima (2014) and Felice (2018), among many others.

mitigates unrest against the unification, both by favoring identification with the new rulers and by alleviating the clash between the new institutions and local social norms.

We measure the intensity of municipal-level unrest using the number of brigandage episodes relative to local population. We directly test whether the degree of unrest varies with the distance from Piedmontese communities. Our main measure of distance is the time needed to reach the closest Piedmontese enclave by foot, according to the *Human Mobility Index*, developed by Özak (2010, 2018). Our results show that, conditional on observable characteristics, Piedmontese communities display less brigand activity than surrounding municipalities, and that doubling the distance from the closest Piedmontese enclave is associated with a 13% increase in the expected incidence of brigand uprisings. These results survive an extensive sensitivity analysis and prove robust to controlling for spatial correlation. Moreover, our findings show that the impact of the Piedmontese enclaves on brigandage intensity is nonlinear—being detectable only among municipalities within a 10-h walking distance—and is sensitive to the degree of exposure to Piedmontese enclaves. The local nature of the effect unveils the relevant role played by frequent interaction of local populations with the inhabitants of Piedmontese communities.

Having corroborated the hypothesis that proximity to the Piedmontese communities affects the intensity of social unrest, we investigate the mechanisms underlying this phenomenon. We argue that geographical distance from areas of Piedmontese ancestry parallels cultural distance from Piedmont: prolonged interactions with Piedmontese descendants and protracted exposure to Piedmontese social norms increase the cultural proximity of these communities to the descendants of Piedmontese settlers and therefore to Piedmont itself. We thus argue that communities that are culturally closer to the new rulers may be less prone to rebel.

To substantiate this claim, we adopt three complementary strategies. First, we collect novel pre-unification municipal-level data on economic specialization, wealth, land ownership structure, human capital, social capital, and local institutions, providing evidence that none of these factors is a suitable alternative explanation of our results. Second, we run “placebo” tests, taking different cultural enclaves (of Albanian and Greek origin) as reference points: the fact that our result is not reproduced in these specifications excludes the possibility that the “ethnic minority” status of Piedmontese enclaves drives our results. Third, we document the persistence of ancestral cultural traits in communities of Piedmontese origin by providing anecdotal evidence on the presence of trade, intermarriage, and language admixture between these communities and their neighbors. We corroborate this evidence by collecting new data from the *Linguistic Atlas of Basilicata* (Del Puente 2010)—which reports a list of commonly used words in the local vernacular for all the municipalities of that region—to construct a measure of Piedmontese linguistic influence and find that the degree of language admixture is correlated with the proximity to the Piedmontese enclaves. We take this as evidence of interaction between Piedmontese communities and nearby municipalities.

On the basis of these considerations, we discuss two cultural mechanisms that may rationalize our results: identification with the Piedmontese rulers, and a clash between local values and the content of specific institutions and policies imposed by the Piedmontese. The first mechanism entails that Piedmontese descendants recognize themselves as closer to the new rulers and are thus more willing to cooperate with them: social identification could affect the perceived legitimacy of the new rulers and have an impact on the immediate reaction against the unification. To support this idea, we collect novel municipal-level data on the volunteer soldiers who joined General Garibaldi during the Italian unification campaign of 1860, which preceded the annexation: we use this as a measure

of pro-Piedmontese attitude prior to the unification. The second mechanism rests on the hypothesis that social norms in and around Piedmontese enclaves are more in tune with the content of specific provisions of law or with daily-life implications of administrative practices. Reactions to the unification could be softer where local cultural traits are aligned with the new institutions. We investigate this mechanism by using information on the location of Cistercian and Franciscan monasteries to construct a historical measure of local religiosity. Our results suggest that a favorable attitude toward Garibaldi's unification plan, and lower religiosity become more common as one moves closer to Piedmontese communities. Hence, both mechanisms could rationalize why Piedmontese enclaves, and the neighboring municipalities with which they historically interacted, are more willing to accept the unification, thus experiencing less brigandage.

Our paper is inspired by the interdisciplinary literature on state formation and nation building (for a broad review on the topic, see Møller 2017). In a broad perspective, state formation has long been the object of debate in political philosophy and political science: notable contemporary examples are, among others, Tilly (1985), and Olson (1993). These analyses have had a large influence on political economy, where state formation has often been linked to the emergence of a structured fiscal system (see e.g., Acemoglu and Robinson 2016). However, research in economics on specific instances of modern and contemporary state formation is not as rich. In particular, the economic consequences of Italian unification have been thoroughly analyzed (Toniolo 2013), but with little focus on the state formation process itself. As for other European countries, Dittmar and Meisenzahl (2020) suggest historical causes of the emergence of state capacity in Germany. Particular attention has also been devoted to the re-unification of Germany in the 1990s, due to its importance for the European economy as a whole, with some authors drawing comparison with Italian unification (Boltho et al. 1997). Our paper highlight how state formation may find an obstacle in different attitudes within the involved population.

A parallel strand of research has instead focused on nation building, i.e., on policies and processes concerning the formation of a national identity—which are often a component or a successor of state formation processes. Among recent works in this area, for instance, Alesina et al. (2021) discuss the role of primary education for the *homogenization* of the population when building a nation. However, interest on nation building is justified by possible shortcomings of such policies. Fouka (2020) analyzes the effect of restrictions to the German language in elementary school on the assimilation and integration of immigrant children in the US after World War I. She finds that the assimilation policy did not work as intended, as treated individuals showed a heightened sense of their original German cultural identity. Similarly, Dehdari and Gehring (2022) show that the exposure to repressive nation-building policies may end up strengthening regional rather than national identities. In a recent contribution, Bazzi et al. (2019) explore the effects of relocation policies in Indonesia, which might be expected to have fostered national identity by creating communities of people with diverse origins. However, the authors show that this occurred only in communities with many small groups, but not in those with few large groups. Although we do not analyze the long-run effects of nation building policies, our paper suggests that cultural differences within the target population might hinder the feasibility and success of these interventions.

We also contribute the rich literature on the effect of culture on socio-economic outcomes. Two prominent examples in this field are Guiso et al. (2016) and Tabellini (2010). The former highlight how the functioning of legal and administrative institutions and their effectiveness in terms of economic outcomes are deeply affected by the cultural traits of the environment to which they are applied. The second paper shows that historical variation in

cultural traits is associated with differences in current economic development across European regions. Other authors specifically study the role of cultural proximity in facilitating economic transactions (see Falck et al. 2012, Fisman et al. 2017, and Hao and Xue 2017). By studying how cultural proximity affects the state formation process, our results also add new evidence related to this literature.

We also draw on the literature on the origin of social unrest and civil conflicts (Blattman and Miguel 2010, for a comprehensive review). While a rich body of work studies the economic causes of social unrest, our paper speaks to the literature that analyzes the importance of cultural roots for the ethnic divisions that underlie many civil conflicts (e.g. Alesina et al. 1999; Montalvo and Reynal-Querol 2005; Besley and Reynal-Querol 2014). Sambanis and Shayo (2013) provide a theory that formalizes the relationship between ethnic identification, lower intergroup trust, and the intensity of conflicts. We draw from their insights to highlight that nation-building policies may heighten social identification, resulting in prolonged rebellions.

Our paper touches upon the interdisciplinary debate on the consequences of institutional transfers. Dryzek (1996) and Roland (2004) suggest that institutional change hinges on the interaction between political institutions and local values, beliefs, and social norms, highlighting the difficulties of transferring institutions into different cultural contexts. That is why the success of reform depends on the “goodness of fit” between the institutions and the environment where it is adopted (De Jong and Mamadouh 2002). We build on their intuition and providing suggestive evidence consistent with the “goodness of fit” argument.

Finally, this paper is further linked to other works in the economic literature that focus specifically on Italian post-unification brigandage. Most notably, Accetturo et al. (2017) exploit a “side effect” of brigandage, the adoption of the draconian Pica Law in 1863, to study the effects of law enforcement on political participation. Amodio (2012) shows that three notable brigandage episodes destroyed social capital and had long-lasting effects on voter turnout. To the best of our knowledge, however, our paper is the first to link Piedmontese (and, more generally, non-indigenous) ancestry in southern Italy with the intensity of brigandage.

The rest of the paper is organized as follows. Section 2 reviews the historical background, delineating Italian unification and the characteristics of brigandage, and describing the communities of Piedmontese ancestry in southern Italy. Section 3 illustrates our data and provides descriptive statistics. Section 4 presents our identification strategy and displays the main results. Section 5 examines a number of potential channels that may explain our results. Section 6 proposes cultural proximity as a possible driver behind the phenomenon we observe. Section 7 concludes. The Appendix contains additional figures, tables, and robustness checks, along with a detailed list of all variables and their historical sources.

2 Historical context

2.1 Italian unification and brigandage

Our analysis is made possible by the peculiar historical circumstances that arose in the context of Italian unification in the 1860s.² This process was led by Piedmont, one of the

² The historical details in this section are mostly based on Molfese (1964).

regional states of northern Italy.³ In 1860, General Giuseppe Garibaldi and his army of volunteers occupied the Kingdom of the Two Sicilies, which included Sicily and southern Italy and had hitherto been ruled by the Bourbon dynasty (the administrative map of southern Italy in the period under study is reported in Fig. A.1). Garibaldi ruled as a *pro tempore* dictator in the name of the Piedmontese king after having ousted the Bourbons from Naples, the capital city. Soon, the regular Piedmontese army descended into southern Italy, and by October 1860, the former Bourbon territories had been de facto annexed to Piedmont. In 1861, the annexation was sanctioned by the creation of the Kingdom of Italy.

Italian unification was an all encompassing process. It entailed a military occupation by the Piedmontese, the adoption of policies that could foster a national identity (such as compulsory military services), and the extension of laws and the whole administrative and judicial system of Piedmont to the rest of Italy. Moreover, high-level administrative positions were largely assigned to Piedmontese officials.⁴ All of this hit the communities of southern Italy, not only on ideological grounds but also through a direct impact on local economies.

The unification process sparked full-blown popular unrest, in the form of brigandage. Post-unitary brigandage constituted an explicit, violent reaction against the unification process carried out by the Piedmontese. Historians have highlighted several fundamental elements underlying the uprising: the ideological support for the old institutions embodied by the king and the Church (Pappalardo 2014); the negative impact on lower classes of innovations contained in the Piedmontese policies, such as the abolition of common lands and extension of the draft (Cingari 1954); and the recognition that Piedmontese reforms came close to the wishes of the local bourgeoisie than to those of the lower classes (Molfese 1964). Brigands came almost invariably from the peasantry and were joined in some cases by disbanded Bourbon soldiers refusing to integrate into the new army's ranks. Brigand bands varied in size, ranging from a few individuals to hundreds, they existed almost exclusively in rural areas and were concentrated where control of the territory by the occupiers was more difficult, especially along the Apennine mountain range (Fig. 1A). While the term *brigandage* has been used to label several forms of semi-organized rural crime predating the period we analyze, post-unitary brigandage was unprecedented in terms of magnitude and political intent (Capone 2017). According to official data reported by Molfese (1964), there were approximately 80,000 brigands, of which more than 5000 were killed (during military operations or by execution) between 1861 and 1865, a similar number were arrested, and approximately 3600 surrendered. According to Ciocca (2013), approximately 6500 brigands and more than 1600 regular soldiers were killed between 1861 and 1869.

Scholars partition the history of brigandage into three phases. The first coincides with the early uprisings of 1860. At this stage, brigands were little more than groups of peasants organizing localized rebellions. Restoring the status quo was the main aim of these rebels. They often received support from parties interested in restoring the previous monarchy: the Bourbons themselves, at least initially, some elements of the aristocracy, and, most

³ “Piedmont” is a shortcut name for the Kingdom of Sardinia, ruled by the House of Savoy, which comprised the regions of modern Piedmont, Aosta Valley, Liguria, the county of Nice and the region of Savoy, and whose capital was Turin.

⁴ For instance, almost half of the local representatives of the Ministry of the Interior (*prefetti*) in southern Italy from 1861 to 1865 were Piedmontese. Continuity with the earlier Piedmontese kingdom was also emphasized by two measures of extreme symbolic value: the regnal number of the king—Victor Emmanuel remained “the second” instead of becoming the “first” king of Italy—and the extension of the Piedmontese currency to the whole kingdom, rather than its replacement with a brand new currency.

important, the Roman Church. The second phase begins in 1861, when brigands began forming “specialized” bands, with commanders-in-chief and a more stable organization, and retreating to secluded areas, which they left only to obtain supplies, an activity that was often supported by the local peasantry. The ensuing phase of guerrilla warfare, known as “great brigandage”, lasted from 1861 to 1864. In 1863, martial law (the so-called Pica Law) was introduced in 11 of southern Italy’s 16 provinces, paving the way for large-scale military operations, which proved effective in decreasing the intensity of brigand activity. The third phase begins in 1865, when brigandage began to fade and lose its intensity, and runs through 1870, by which point brigandage had substantially disappeared.

2.2 The piedmontese communities of Southern Italy

Our paper exploits the presence of communities of Piedmontese settlers in southern Italy.⁵ Relying on the works of linguists, we follow Toso (2008) in identifying 10 communities that retain Gallo-Romance linguistic traits. They constitute four geographically distinct clusters: the municipalities of Celle di San Vito and Faeto, in the province of Capitanata (northern Apulia); seven municipalities in Basilicata, divided into two clusters (Picerno, Pignola, Tito, and Vaglio on one hand, and Nemoli, Rivello, and Trecchina on the other); and the isolated municipality of Guardia Piemontese, in Calabria Citeriore (the northernmost Calabrian province).⁶ The seven communities in Basilicata spoke a Southern dialect permeated by Gallo-Romance lexical and syntactic elements, whose association with Piedmontese was uncovered in the 20th century (Rohlf 1988). In three of our municipalities (Celle and Faeto in Apulia, and Guardia in Calabria), a Gallo-Romance dialect was the main regional language at the time of the events (De Mauro 1963).

There is substantial agreement among historians that such communities were established in the late Middle Ages (with the earliest mentions dating back to between the 13th and 15th centuries). Linguistics also helps us identify the places of origin and, consequently, clarify the reasons underlying the migratory phenomena that led to the formation of these communities—in particular, to exclude the possibility that the main motive for these communities settling in southern Italy was an attempt to escape religious persecution. The origin of the Apulian Franco-Provençal settlement has been traced back to soldier relocation and land assignment by Charles of Anjou in the 1260s and 1270s (see, for instance, De Salvo 1908, and Melillo 1959). Based on linguistic evidence, Pfister (1991) and Toso (2002) suggest that most of the Gallo-Italic speakers from Basilicata descend from southern Piedmontese and/or Ligurian colonizers, who are not believed to have been involved in religious struggles. Specifically, the northern cluster of Piedmontese communities probably originated from 13th-century migrations following a significant demographic drop due to wars and the 1273 Potenza earthquake. Similarly, the area including the municipalities of the southern Piedmontese cluster

⁵ We call these communities “Piedmontese enclaves” throughout the paper but they were established by migrants from areas that nowadays belong to either Piedmont or neighboring areas in Italy and France, such as Liguria, Savoy, and eastern Provence. These areas are all located within the Provence-Savoy-Piedmont area, which was historically under the influence of the Piedmontese state; see De Salvo 1908, and Toso 2002.

⁶ Many scholars also identify Potenza as an ethnolinguistic enclave. Throughout our analysis, we exclude Potenza from the Piedmontese enclaves because it is the provincial seat and biggest city in Basilicata (counting more than 15,000 inhabitants in 1861), and Piedmontese descendants were likely a small minority there. However, our results are robust to the inclusion of Potenza in the linguistic enclaves (see Table B.5 in the Appendix).

Panel A: Intensity of brigandage (Episodes per 1,000 inhabitants). Piedmontese communities are denoted by the red dots.

Panel B: Piedmontese communities (red pinpoints) and other linguistic enclaves (blue and green pinpoints).

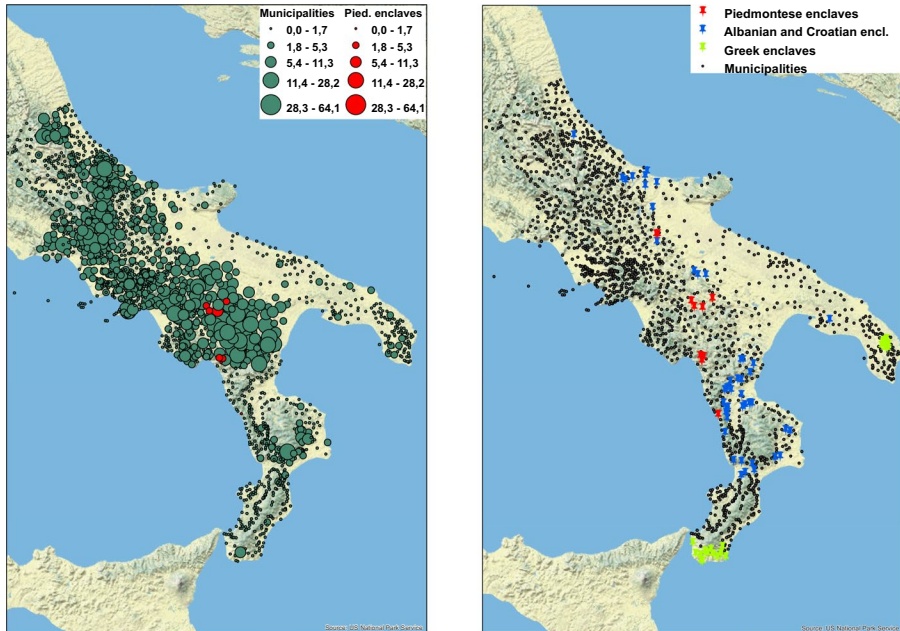


Fig. 1 Municipalities in continental Southern Italy as of 1861

in Basilicata was owned by the Aleramidi lords of southern Piedmont, who acquired these lands by marriage and supported migration flows from their homeland to southern Italy. The assignment of lands to Piedmontese settlers thus occurred through exogenous events (wars, earthquakes, dynastic marriages).

The Calabrian settlement of Guardia stands as an exception: it was created by a community of Waldensians, whose southward migration may have been sparked by fears of persecution following the Albigensian Crusade (early 13th century). There is no evidence, however, that religious motives affected the choice of the precise location of the colony (which might otherwise have been explicitly selected for its secludedness or defensibility). In fact, the Waldensians were positively received by the Calabrians and faced no difficulties until after the Reformation (Vegezzi Ruscalla 1862). Once again, the robustness of our results to the exclusion of this community (see Table B.5 in the Appendix) should dampen the concerns regarding its exceptionality.

3 Data and variables

This paper exploits a novel and extremely rich dataset that combines information on all recorded episodes of brigandage with a trove of historical information on Italian municipalities. Unless otherwise specified, in the rest of the paper the terms *municipality* and

province refer to administrative units as they were organized under the new Italian rule.⁷ Our main dependent variable is the intensity of brigandage in the 1861–1870 period, which we measure as local brigandage incidence, i.e., the number of episodes divided by the municipality’s population, measured in thousands of units. We use this measure of brigand activity to quantify the intensity of the social unrest following the Italian unification in each of the 1,855 municipalities in post-unitary southern Italy (Fig. 1). We digitized the information collected in three volumes published by the Italian Ministry of Culture (Ministero per i Beni e le Attività Culturali 1999–2001), which contain all episodes of brigandage reported in the State Archives of the southern provinces (for an example of entries in the State Archives, see Fig. A.2). In all, we collected 10,282 brigandage episodes for which we know the geographical location, the type of offense, the reporting authority, and the year in which they were recorded.⁸

On average, the municipalities in our sample experienced approximately 5.5 episodes each (corresponding to approximately 1.67 episodes per thousand inhabitants); roughly two-thirds of them experienced at least one episode, and the most intensely brigand-stricken municipality endured 36 episodes per thousand inhabitants. Based on information contained in the original records, we are able to classify episodes into three broad categories of offenses: violent crimes, clashes with authorities, and armed insurrections (37.3%); nonviolent crimes such as theft, arson, and instances of connivance (32.2%); and a residual category that includes all other episodes, such as notifications of the presence of brigand bands, reports by citizens, and arrests (30.5%). Most of our episodes were recorded by public safety institutions such as the police or the *prefettura*, the local representatives of the Ministry of the Interior (52.3%); most of the remainder (37.8%) were recorded by central and local courts. Almost three-fourths of our episodes (73.2%) are associated with the most intense phase of brigandage (1861–1864); the remaining 26.8% were recorded between 1865 and 1870.⁹

The main explanatory variable is the logarithm of the distance of each municipality to the closest Piedmontese community. The measure of distance we use is based on the *Human Mobility Index*, which estimates the “potential minimum travel time accounting for human biological constraints, as well as geographical and technological factors that determined travel time before the widespread use of steam power” Özak (2010, 2018). Given the pronounced diversity of the Italian geography, this measure is arguably better suited for our analysis, as it overcomes potential mismeasurements that arise when geodesic distances are used.¹⁰ For each municipality, *Travel time Piedm. encl.* is the total travel time (expressed in

⁷ In 1861, southern Italy was organized into 16 provinces (which were the main administrative units), 57 districts, and 1855 municipalities. Pre-unification data collected for different aggregations are mapped into post-unification administrative units.

⁸ We cleaned our dataset by aggregating all the entries that share date and location and are reported consecutively (within the same source), as these distinct reports might originate from the same event. It could be that different convictions following a single brigandage event are reported in multiple entries. This refinement reduces the number of episodes per municipality and addresses the potential concern of overreporting. However, all our results are similar in magnitude and significance to those obtained using the raw data.

⁹ There were 244 occurrences recorded in 1860, which we exclude from our main sample. These episodes were in reaction to Piedmontese occupation, before the formal unification (Sect. 2). When considering the temporal distribution of brigandage, one must bear in mind that different institutions might have recorded episodes with varying delay: for instance, courts may have recorded some episodes at the beginning of the associated trials, which may have occurred months or even years after the suspected crime had taken place.

¹⁰ In particular, we exploit the *Index* without seafaring technology, which estimates the time required to cross each square kilometer on land based on data on the maximal sustainable speed of dismounted infantry

hours) needed to reach the nearest Piedmontese enclave along the quickest path.¹¹ Our use of a log-transformed version of these distances is in line with our interpretation that physical proximity enhances social interaction: the probability of making contact with Piedmontese descendants should be nonlinear, and equal increases in physical distance should be deemed less important as their distance from the Piedmontese enclaves grows.

In addition to geographic characteristics, we control for sociodemographic and economic features of southern Italy's municipalities and provinces before unification. For this purpose, we collected and digitized novel data from several statistical sources dating back to the last decades of the Kingdom of Two Sicilies,¹² and population data concerning the years immediately following Italian unification, obtained from the Italian Census of 1861 and additional statistical reports of the following decade. To capture differentials in economic growth across municipalities prior to the onset of the events we study, we compute the population growth rate between the 1850s and 1861 (both values are reported in the 1861 Italian Census). Other variables that were recorded before national unification (mostly between 1830 and 1850) at the municipal level include indicators for the presence in each municipality of civil, criminal, or commercial courts; of the local episcopal or archiepiscopal seat; of secondary education institutes; of new hospitals; and of relevant manufactures or proto-industrial plants. We also digitized rich information contained in ten volumes of the *Dizionario geografico-ragionato del Regno di Napoli* (Giustiniani 1797–1805) on agricultural and industrial production, and on the identity of feudal landowners before 1861 for a subsample of municipalities located within 45 km of the Piedmontese communities and complemented it with Alfano (1823). We also collected information on provincial-level pre-unitary characteristics: the number of individuals subject to military draft in 1834; the numbers of landowners, farmers, and fishermen; and the numbers of professionals, artisans, and servants. We also include provincial-level data on tax revenues, municipal revenues, and total expenditure for public works in 1850–1851. Moreover, using data collected by Villani (1964), we obtain some provincial measures of the intensity and patterns of the diffusion of monasteries and the sale of their lands during the Napoleonic period. A precise description of all variables and sources is reported in Section C of the Appendix).

Table 1 reports the mean values of several geographic controls for Piedmontese communities and all other municipalities in southern Italy. Differences in such values are statistically significant only in the case of altitude, with Piedmontese communities lying on higher grounds than the average municipality. Consistent with this evidence, we observe that Piedmontese communities display slightly (though not significantly) more intense brigandage than the average municipality. This fact should come as no surprise. Figure 1A illustrates that the majority of brigand activities were concentrated along the Apennine range and, in general, in inland rural areas. Piedmontese communities meet these characteristics, so that

Footnote 10 (continued)

movement under different climatic, topographical, and terrain conditions. We employ the *Human Mobility Index* with seafaring technology only to compute distances involving municipalities located on islands.

¹¹ Figure A.3 in the Appendix shows the travel time for the entire southern Italian peninsula. We run robustness checks using different measures of distance: Table B.2 reports the correlation across such measures.

¹² Our main data sources are the *Annali Civili*, an official statistical publication by the Ministry of the Interior of the Kingdom of Two Sicilies, published in several volumes between 1833 and 1860; the statistical collection (*Statistica dell'Italia*) by L. Serristori, published in 1839 Serristori (1839); and historical works on the sale of national wealth during the Napoleonic period (Villani 1964).

when compared to *all* other municipalities (including those in the plains and coastal areas, as well as in provinces that were virtually brigand-free), they expectedly show a higher incidence. Indeed, our main point—that Piedmontese origin dampened social unrest at the local level—already emerges from the raw data when one uses measures of brigandage demeaned at the province level: compared to the average municipality in their province, Piedmontese enclaves display significantly lower brigandage intensity. Table B.1 in Appendix B.1 reports the average of our main geographic and socioeconomic controls for municipalities with brigandage incidences below the median, above the median, and in the top quartile.

4 Empirical analysis

In this section, we present our main results. As described in Sect. 2, Italian unification was a “shock” that generated a reaction with different degrees of intensity across southern Italy. In some municipalities, citizens responded with violent uprisings and riots, while in others no episodes of this kind were reported. We argue that distance from a community of Piedmontese ancestry is a significant determinant of the intensity of this kind of unrest. We first provide a historical case study, then we discuss our empirical strategy before showing the main results.

4.1 Comparison of two communities: a case study

Here, we consider two villages that are comparable in terms of population and geographical characteristics: Castelluccio Superiore, a municipality in Basilicata with a population of 2900 in 1861 and an altitude of 680 meters, and Castelluccio Valmaggiore, an Apulian municipality with a population of about 2700 and an altitude of 630 meters. (The similarity in names is coincidental: four of our municipalities are called Castelluccio). Using the least-coast path, Castelluccio Superiore is located approximately 21.3 km (travel time: 4 h and 30 min) from one of the two Piedmontese clusters in Basilicata, with the closest enclave being Nemoli. Castelluccio Valmaggiore lies 2.6 km (travel time: 36 min) from the Piedmontese municipality of Celle San Vito.

Many brigandage episodes were reported in the area of Castelluccio Superiore (24 episodes, an incidence of 8.3 episodes per 1000 inhabitants, compared to an overall average of 1.67). Molfese (1964) mentions Castelluccio Superiore in his book, describing the “assault of Castelluccio” in August 1863, when 20 national guards were assaulted by 40 brigands while escorting a group of noblemen. In the ensuing clash, nine people (six guards, one noblemen and two brigands) died, and the surviving noblemen were kidnapped. In stark contrast stands Castelluccio Valmaggiore, where no episodes of brigandage were reported in our sources during the military invasion or in the following years. However, Daunia, the broader area where Castelluccio Valmaggiore lies, was not immune from brigandage: Its main center, Lucera, which lies 24 km from Castelluccio Valmaggiore, was an intensely brigand-stricken municipality. We now investigate whether this observation can be generalized to claim that proximity to a Piedmontese community is associated with less-intense brigandage, conditional on the observables.

Table 1 Descriptive statistics and means comparison

	(1) Piedm. enclaves	(2) Other municip.	(3) Difference
Area 1861 (hectares)	4361.30	4163.67	197.63
Pop. 1861 (1000s)	3.01	3.66	− 0.65
Pop. growth 1824–61	− 0.11	− 0.04	− 0.07
Altitude (meters)	671	414	257***
Travel time Naples	25.66	26.37	− 0.71
Travel time town	6.55	4.40	2.15
Travel time provincial seat	7.26	7.34	− 0.08
Travel time Papal State	48.56	43.41	5.15
Travel time coast	9.01	6.03	2.98
Episodes (tot.)	7.70	5.53	2.17
Episodes (× 1000 inh.)	2.08	1.66	0.42
Episodes (tot.) demeaned	− 9.62	0.05	− 9.67***
Episodes (× 1000 inh.) demeaned	− 2.42	0.01	− 2.43***
Observations	10	1845	1855

Column 1 reports means in Piedmontese communities; column 2 reports means in all other municipalities; column 3 reports the difference between the two. The significance test for the difference between means allows for unequal variance. Travel times are expressed in hours. In the two bottom lines, the variables are transformed in deviations from provincial means. For a detailed description of the variables, see Section C of the Appendix. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

4.2 Empirical strategy

To test our central hypothesis, namely, that brigandage intensity becomes weaker the closer one moves to Piedmontese communities, we estimate the following linear model:

$$Y_{i,j} = \gamma_1 \cdot \log(\text{Travel time Piedm.encl.}_i) + \gamma_2' \mathbf{G}_i + \gamma_3' \mathbf{C}_i + \gamma_4' \text{Prov}_j + \varepsilon_{i,j}, \quad (1)$$

where $Y_{i,j}$ is the incidence of brigandage recorded in town i of province j ; Travel time Pied. $_i$, our main independent variable, measures the travel distance from municipality i to the closest Piedmontese community in hours; \mathbf{G}_i and \mathbf{C}_i are vectors of geographical and pre-unitary socioeconomic controls, respectively, measured at municipality level; Prov_j is a set of pre-unitary controls measured at the province level, usually reduced to a province indicator; and $\varepsilon_{i,j}$ is the error term, to which the usual assumptions for linear models apply unless otherwise specified. The key coefficient is γ_1 , representing the effect of the distance from the closest Piedmontese community on the incidence of brigandage. We expect γ_1 to be positive and significantly different from zero, indicating that—conditional on our controls—proximity to a Piedmontese community reduces a municipality's propensity to experience brigand activity in its territory.

Our identification relies on the absence of correlation between our measure of distance and the error terms, conditional on all controls. Taking settlement locations as fixed, this amounts to claiming that the location of Piedmontese communities must be randomly determined. Among other factors, we control for time-invariant observables, such as altitude, which, as presented in Table 1, make the assignment of a Piedmontese community more or less random. Moreover, while Piedmontese communities are the result of

migratory movements, historical evidence presented in Sect. 2 suggests that the location and characteristics of Piedmontese communities were not chosen according to criteria that might, through other channels, influence the presence and/or intensity of brigand activity.

4.3 Main results

Table 2 reports our main results.¹³ We start by showing that the 10 Piedmontese enclaves experience a lower level of brigandage intensity, conditional on observables. In particular, columns 1–3 report estimates of ordinary least squares models that relate the incidence of brigandage to a dummy variable that identifies the Piedmontese enclaves. This change in the main independent variable of model (1) is used only in the presentation of the main results, while the rest of the paper is based on specifications using the (logarithm of) travel time to the nearest Piedmontese enclave, here displayed in columns 4–6 of Table 2.¹⁴ Columns 1 and 4 include population growth in the 1850–1861 period, an indicator of economic growth in this preindustrial setting, the main geographical controls (municipal coordinates; area and altitude; distance from the coast, Naples, and Papal States; the provincial seat; and the closest town with at least 10,000 inhabitants), provincial controls, and a set of region-specific fixed effects. Columns 2 and 5 replace region fixed effects with province-level fixed effects, which also absorb all the provincial controls,¹⁵ while columns 3 and 6 complete the specifications by adding pre-unification municipal-level variables. Standard errors are clustered at the level of districts, 57 subprovincial units containing on average more than 30 municipalities.

All our models display a negative and significant relationship between the intensity of brigandage and the Piedmontese enclave dummy, and a positive and significant relationship between brigandage and the distance from the nearest Piedmontese community. These findings provide evidence of lower intensity of the revolt in Piedmontese communities and in neighboring municipalities. Even when controlling for a substantial set of characteristics, Piedmontese enclaves experience significantly fewer episodes per 1000 inhabitants with respect to the average municipality. Moreover, doubling the travel time to the nearest Piedmontese community is associated with a municipality experiencing around 0.22 additional episodes per 1000 inhabitants (a 13% increase over the average of 1.67 episodes per 1000 inhabitants).

In Sect. B.2 of the Appendix, we perform an extensive sensitivity analysis, addressing possible measurement and specification issues. First, we show that the results are robust to the use of alternative measures of brigandage intensity (Table B.4). In particular, to study the sensitivity of our findings to considering specific phases or types of brigandage, we estimate our main specification using episodes reported in the first year of brigandage (1860), in the 1861–1864 “great brigandage” phase, and in the years preceding the Pica Law (1861–1862); moreover, we estimate our model by type of brigandage, separately considering episodes with political and/or violent content and those involving only minor or ancillary crimes. Second, we use alternative measures of proximity to Piedmontese

¹³ Figures B.1 and Table B.3 in the Appendix report the scatter plot and the simple correlations table between brigandage intensity and the distance from the closest Piedmontese enclave.

¹⁴ When we use distance as the independent variable, we include the 10 Piedmontese enclaves in the sample, with a value of distance equal to 0.

¹⁵ Province-level fixed effects also account for the presence of the Pica Law. Indeed, as described in Sect. 2.1, the martial law was implemented at the province level.

communities (Table B.5). Specifically, we substitute travel time with (a) road distance (computed using ancient Roman roads), (b) a measure of geodesic distance, and (c) the length in kilometers of the quickest path, selected using the *Human Mobility Index*. Third, we add additional controls such as population levels, the interaction between distance and municipal area, and nonlinear controls for altitude. Fourth, we present generalized linear models designed to deal with count data, with the number of brigandage episodes as the dependent variable. Fifth, we consider alternative subsamples excluding sets of municipalities for which the effect of interest might be affected by confounding factors. The results of all these different specifications show that the association between brigandage intensity and proximity to Piedmontese communities is always statistically significant, negative, and remarkably stable.

In addition, given that brigandage episodes appear to be spatially correlated (Fig. 1), we (a) allow for potential spatial autocorrelation of the error term (Conley 1999), either for neighboring municipalities or for a cutoff distance of approximately 45 kilometers (corresponding to the first quartile of the distance between municipalities), (b) estimate a spatial-autoregressive (SAR) model, and (c) estimate a SAR model with SAR disturbances for the same distance cutoffs. The main results remain highly significant, and the coefficients are stable, even after the inclusion of a spatial lag (Fig. B.2). As a final robustness check, we conduct a placebo exercise in which the main independent variable is the distance of each municipality from the closest municipality that did not experience any brigandage episodes. This exercise aims to rule out the possibility that Piedmontese communities were (willingly or unwillingly) coordinating nearby municipalities into abstaining from rebellion and that the latter decided not to rebel by imitation. The results reported in Fig. B.3 in the Appendix show that imitation does not appear to drive our findings.

4.4 The scope of proximity

We now turn to investigate the reach of the sphere of influence of the Piedmontese enclaves: better understanding the scope of the effect may shed light on the factors driving the baseline result. We start by plotting brigandage intensity by quantiles of the distribution of travel time to the closest Piedmontese enclave; Fig. 2 reports the results. Panel A plots the unconditional means, while panel B displays deviations from provincial averages. The two panels clearly show that Piedmontese enclaves lie in areas heavily hit by brigand activity, but experience a lower brigandage intensity with respect to the average municipality in their surroundings. Moreover, the positive correlation between distance from the Piedmontese communities and brigandage incidence seems to be present only for municipalities relatively close to the enclaves. Figure B.4 in the Appendix further reports the Lowess smoother plot between brigandage intensity and the travel time to the closest Piedmontese enclave; it confirms that the positive relationship is particularly concentrated within short-range distances.

In Table 3 we analyze this pattern in more detail. First, we reestimate our baseline model in different quartiles of the distribution of the distance to the nearest Piedmontese community. Columns 1–4 show that the positive correlation between geographic distance and brigandage intensity is detectable only in the first quartile of the distance distribution, corresponding to a walking distance of 10 hours at most (and to a geodesic distance smaller than 45 km). This finding shows that the effect is very local, and that only the enclaves and their close neighbors display lower level of social unrest. A possible interpretation of this result is that whatever factor drives the weakening of the intensity of brigandage, it may

Table 2 Baseline results

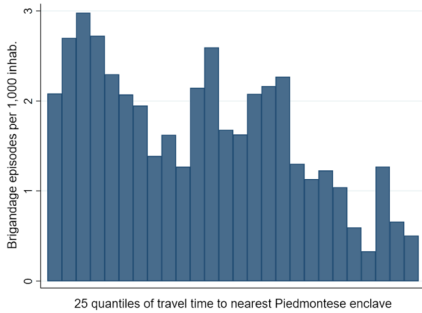
Dependent variable	Brigandage episodes per 1000 inhabitants					
	(1)	(2)	(3)	(4)	(5)	(6)
Piedm. encl.	-2.688*** (0.743)	-2.684*** (0.754)	-2.683*** (0.743)			
Travel time Piedm. encl. (log)				0.327*** (0.094)	0.321*** (0.094)	0.319*** (0.093)
Geographical controls	✓	✓	✓	✓	✓	✓
Distance controls	✓	✓	✓	✓	✓	✓
Provincial controls	✓			✓		
Municipal controls			✓			✓
Region FEs	✓			✓		
Province FEs		✓	✓		✓	✓
R ²	0.346	0.349	0.353	0.348	0.351	0.355
Observations.	1855	1855	1855	1855	1855	1855

Population growth is included in all specifications. Columns 1–3 estimate different versions of a variation of model (1) where the logarithm of the distance from the closest Piedmontese enclave is replaced by a dummy variable that identifies the Piedmontese enclaves. Columns 4–6 estimate different versions of model (1). *Geographical controls* include (log) Area 1861 (hectares), Altitude (meters), Latitude and Longitude. *Distance controls* include (log) travel time to Naples, (log) travel time to the nearest provincial seat, (log) travel time to the nearest town, (log) travel time to the coast, (log) travel time to the Papal States. *Provincial controls* include the number of young men, real estate owners, liberal arts professionals, farmers, artisans, and fishermen; average duties on milled grain, state revenues, and public expenditure; monasteries suppressed in 1806–1815, monasteries reinstated in 1818, buyers per contract and rent per contract in the alienation of national wealth that occurred in 1806–1815; all variables refer to pre-unitary years. *Municipal controls* include dummy variables for the presence in each municipality of civil, criminal, or commercial courts; of the local episcopal or archiepiscopal seat; of secondary education institutes; of hospitals; and of relevant manufactures or proto-industrial plants. Standard errors clustered at the district level are in parentheses. For a detailed description of the variables, see Section C of the Appendix. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

have spread through social interaction close to the enclaves. The interactions one might expect to have taken place in these areas in earlier centuries (small-scale trade, participation in local markets and fairs, intermarriage) require direct contact with communities of Piedmontese descent and are thus likely to be more frequent at short distances. In fact, as late as the 1700s and early 1800s, the infrastructural conditions were still dire. Citing several sources, Di Ciommo (1987) describes a scenario in which traveling and transportation of goods were exceedingly difficult, even in major towns and even on relatively easy terrain (such that of Apulia). Hence, it seems plausible that social interaction between smaller mountain communities (as most of the Piedmontese enclaves and their neighbors) occurred only occasionally beyond a one-day-walking distance.

In fact, if direct interaction is a potential way through which geographic distance from a Piedmontese enclave impacts the intensity of brigandage, we should observe that municipalities exposed to a higher number of Piedmontese descendants display lower brigandage incidence. In columns 5 and 6, we further investigate the plausibility of this hypothesis by conditioning our sample to the presence of a Piedmontese enclave within a 45 km radius and by exploiting two measures of intensity of exposure to Piedmontese population. The first variable (*Share of Piedmontese enclaves within 45 km*) measures for each

Panel A: Average brigandage intensity by quantiles of distance from Piedmontese communities.



Panel B: Average of the residuals obtained by regressing the intensity of brigandage on province fixed effects, by quantiles of distance from Piedmontese communities.

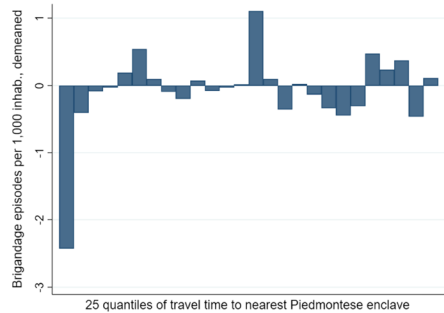


Fig. 2 Brigandage by quantiles of travel time to piedmontese communities

Table 3 Scope of proximity

Dependent variable	Brigandage episodes per 1000 inhabitants					
	(1)	(2)	(3)	(4)	(5)	(6)
Travel time Piedm. encl. (log)	0.375*** (0.100)	1.105 (1.000)	- 0.814 (1.746)	1.351 (1.267)		
Share of Piedm. encl. in 45 km					- 22.661*** (6.848)	
Share of Piedm. pop. in 45 km						- 22.111** (8.398)
Sample	1st Quartile	2nd Quartile	3rd Quartile	4th Quartile	1st Quartile	1st Quartile
R ²	0.513	0.307	0.293	0.336	0.503	0.500
Observations	464	464	464	463	463	464

The coefficients are estimated using the specification of column 6 of Table 2. Columns 1–4 condition the sample to different quartiles of the distribution of travel time to the closest Piedmontese community. *Share of Piedm. encl. in 45 km* and *Share of Piedm. pop. in 45 km* are described in Sect. 4.4. Geographical, distance, and municipal controls, population growth, and province fixed effects are included in all specifications. The sample used in the estimations is reported at the bottom of the table. Standard errors clustered at the district level are in parentheses. * p < 0.1, ** p < 0.05, *** p < 0.01

municipality the number of Piedmontese communities over the number of municipalities within a 45 km radius, weighted by inverse distance. In addition to capturing the idea that exposure increases in the frequency of Piedmontese communities located within a suitably small neighborhood, this variable incorporates the concept that the closer the Piedmontese enclaves, the larger the chance of social interaction and, therefore, the intensity of exposure. The second variable (*Share of Piedmontese population within 45 km*) takes into account also the size of municipalities and Piedmontese communities by weighting inverse distances by their population. Again, the idea is that the likelihood of admixture with Piedmontese enclaves grows as the relative number of Piedmontese descendants whom one

might encounter increases. The estimates of our coefficients are negative and statistically significant, suggesting that a higher probability of direct contact with people of Piedmontese origin is associated with less-intense brigandage.¹⁶ Overall, these findings are consistent with the idea that geographical proximity facilitates interaction, that the strength of the exposure to Piedmontese communities is nonlinear (being much more intense at shorter distances), and that higher exposure to Piedmontese communities induces a lower intensity of resistance to the Piedmontese.

5 Interpretation of the results

In this section, we investigate several explanations that could drive the robust negative relationship between proximity to Piedmontese enclaves and brigandage intensity. In particular, we consider characteristics that may differ in Piedmontese enclaves and in their neighbors from other municipalities. First, we test for the presence of such characteristics by performing municipal-level balance tests on economic, social, and institutional measures that predate or are contemporaneous to Italian unification. Then, we explore the role of social cohesion exploiting the presence of other cultural and linguistic minorities in southern Italy. We conclude by providing anecdotal evidence for other possible drivers of brigandage that cannot be empirically tested at the municipal level.

5.1 Possible explanations

To perform the balance tests, we select a set of potentially relevant variables, drawing both from the historical narrative on brigandage and from the economics and political science literature on the determinants of violence and civil conflicts. We regress each variable on the travel-time distance to the closest Piedmontese enclave, controlling for all the covariates of the baseline model. In light of the findings in Sect. 4.4, we repeat this exercise both on the full sample of municipalities in southern Italy and on the restricted sample of municipalities in the first quartile of the travel-time distance distribution. We describe in detail these analyses in Appendix B.4. Tables B.6 and B.7 report the results.

Economic variables The first natural candidates to explain the relationship between brigandage and the distance from Piedmontese communities are economic characteristics, such as productivity and wealth. The economics and political science literature on conflicts has highlighted how economic variables can impact both the opportunity cost of and the expected gain from participating in a conflict (Fearon and Laitin 2003). For instance, wealthier communities may have more to lose from taking part in a rebellion.¹⁷ If the areas around Piedmontese enclaves were richer or more developed, or simply specialized in

¹⁶ For the sake of illustration, suppose that municipality i has nine neighboring (that is, closer than 45 km) municipalities, all located 20 km from i , and that none of these is a Piedmontese community. If a Piedmontese community were exogenously added to the set of neighbors at 20 km from the reference municipality, our estimate in column 5 predicts that brigandage incidence in i would reduce by 2.2 episodes per 1000 inhabitants. However, if the added Piedmontese community were half as populated as the initial nine neighbors, according to our estimate in column 6, brigandage incidence in i would reduce by only 1.08 episodes per 1000 inhabitants.

¹⁷ The empirical literature generally agrees that, within countries, conflicts tend to be negatively correlated with favorable economic conditions. Prominent examples are Miguel et al. (2004), Bohlken and Sergenti (2010), Buhaug et al. (2011), Dube and Vargas (2013), Berman and Couttenier (2015). For a survey on the topic, see Djankov and Reynal-Querol (2010).

activities whose return was less affected by the new Piedmontese rules, our results might be explained by a wealth-driven lower propensity to revolt. As discussed in Sect. 2, the Piedmontese imposed rules that favored the nascent bourgeoisie at the expense of landowners and peasants. If the socioeconomic structure of the population in the neighborhood of Piedmontese communities were skewed toward a larger middle class, these areas may have been less prone to uprising because a smaller share of their population would be directly damaged by the unification. Therefore, we analyze whether the distance from the closest Piedmontese enclave is associated with a different: (i) land quality (measured by terrain ruggedness and the Caloric Suitability Index by Galor and Özak 2016), (ii) agricultural and economic specialization, (iii) wealth of the municipality (measured by the share of eligible voters in administrative and national elections of 1865, the number of tax paying households in the 16th and 17th centuries, and population density in 1861). Appendix B.4.1 provides a detailed discussion for each variable used and reports results of the balance tests (Tab B.6).

Human Capital, Social Capital and Institutions As we mention in Sect. 2, brigandage—especially in the “great brigandage” phase—had a predominantly political connotation, but a component of common criminality could sometimes coexist with political motives. We explore channels, highlighted by the economic literature on crime, that may explain different levels of illegal activity across different municipalities, and therefore of brigandage intensity. We start by considering human capital, which we measure by different proxies of primary education and school quality in 1862–1863. Higher endowments of human capital are usually associated with lower levels of criminality. Moreover, in our specific context, a higher level of human capital could be related to lower brigandage intensity, as it may increase the ability of people to understand the new laws and their implications. We then look at social capital, measured by the presence of charitable institutions in the 16th and 17th centuries, since it might affect the development of informal relationships that foster cooperation and mutual support: these can either reduce or increase the propensity to engage in criminal activity. Finally, we delve into the role of local institutions. In particular, we build proxies for the degree of police deterrence, the historical development of financial institutions and the distribution of landownership. A detailed discussion on the rationale behind the choice of variables is provided in Appendix B.4.2, and results are reported in Tables B.7 and B.8.

Observable characteristics do not appear to be the drivers of the negative correlation between brigandage intensity and proximity to Piedmontese enclaves. To conclude this part of the analysis, we implement three additional exercises. First, we augment the baseline model by adding the variables that are significantly different in municipalities close to the enclaves compared to other Italian municipalities (i.e., Caloric Suitability Index, the pupil-teacher ratio, the distance from the nearest *pretura*, and, for the first-quartile sample, the presence of mining activities). Columns 1 and 2 of Table 4 report the results using the full sample and the restricted sample, respectively. The variables do not turn out to be significant drivers of brigandage, and the main results remain unaffected by the inclusion of these additional controls.

Second, we use propensity-score matching to compare Piedmontese enclaves with municipalities that have similar characteristics. In particular, using the routine developed by Leuven and Sianesi (2018), we match with replacement on geographical, distance, and municipal controls, as well as those characteristics that were unbalanced in the previous analysis, selecting either the 10 or the 30 nearest neighbors per enclave. Columns 3 and 4 report the results of a regression of brigandage intensity on the travel time from the closest Piedmontese enclaves using the two matched samples (Table B.9 in the Appendix reports the balance tests for the two matched samples). The coefficient on the distance from the closest Piedmontese enclave is always positive and statistically significant; it implies that doubling the travel time to the closest Piedmontese community results in approximately 0.31 additional brigandage episodes per thousand inhabitants, corresponding roughly to a 10% increase in brigandage incidence relative to the average of the matched samples (an effect that is strikingly similar in magnitude to that of the baseline estimates).

Third, exploiting all the variables used in tables B.6 and B.7, we compute Gower's dissimilarity index between each municipality and its closest Piedmontese enclave as an alternative measure of "distance."¹⁸ This index synthetically captures how "distant" each municipality is from its nearest Piedmontese community along certain socioeconomic and institutional dimensions. If the enclaves displayed a mix of specific features that drives down brigandage, its inclusion in our model should alter the significance of our travel-time distance measure. The last two columns of Table 4 report the results of a regression of brigandage intensity on the travel time to the closest Piedmontese enclave controlling for the dissimilarity index in the full sample (column 5) and the restricted sample (column 6). The dissimilarity index is never significant; its inclusion does not change the baseline results. Overall, the results of this section show that the lower intensity of brigand activities around the Piedmontese enclaves cannot be entirely explained by socioeconomic and institutional differences.

5.2 Social cohesion

In this section, we test whether Piedmontese municipalities' minority status might be the reason for a lower violent reaction to the new institutions in these towns. That is, whether lower brigandage is not due to Piedmontese ancestry but rather to the status of Piedmontese communities as "foreign" enclaves.

To perform this analysis, we take advantage of the presence of other cultural and linguistic minorities in southern Italy. Today, as in the past, southern Italy hosts 79 such enclaves, the majority of which (54) are of Albanian descent, and two of which are of Croatian ancestry; the remaining 23 are of Greek origin.¹⁹ Bracco et al. (2015) show that Albanian linguistic enclaves display more "civicness" than the average southern Italian

¹⁸ This index provides a synthetic measure of dissimilarity that takes into account k mixed-type variables (labeled as 1, ..., k); it is defined as

$$G(i, j) = \frac{1}{k} \sum_{x=1}^k \frac{|v_{i,x} - v_{j,x}|}{R_x},$$

where $v_{i,x}$ and $v_{j,x}$ are the values of variable x for municipality i and municipality j , and R_x is the range of variable x .

¹⁹ We aggregate the two Croatian enclaves to the Albanian enclaves in the empirical analysis. The results are virtually identical if we exclude the Croatian communities from the sample of Albanian communities.

Table 4 Possible explanations

Dependent variable	Brigandage episodes per 1,000 inhabitants					
	(1)	(2)	(3)	(4)	(5)	(6)
Travel time Piedm. encl. (log)	0.359*** (0.0978)	0.380*** (0.109)	0.438** (0.203)	0.460** (0.181)	0.299*** (0.0957)	0.411*** (0.117)
Caloric Suitability Index	1.660 (1.202)	- 2.697 (4.106)				
Pupils/teachers	0.012 (0.008)	- 0.007 (0.006)				
Travel time <i>preture</i> (log)	0.0249 (0.0248)	0.057 (0.052)				
Mining		0.145 (0.319)				
Dissimilarity					2.179 (1.597)	
Dissimilarity restricted						-2.065 (1.918)
Sample	Full	1st quartile	Matched-10	Matched-30	Full	1st quartile
R ²	0.373	0.528	0.363	0.416	0.356	0.512
Observations	1702	423	74	115	1855	452

Geographical, distance, and municipal controls, and population growth are included in columns 1–2 and 5–6. Province fixed effects are included in all specifications. The bottom of each column reports the sample used for each specification. Standard errors clustered at the district level are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

municipality. This finding is attributed to the more intense *social cohesion* that emerges within ethnolinguistic enclaves, where bonds and relationships are formed by virtue of the enclave's cultural dissimilarity with respect to the surrounding environment. One might then suspect that a similar mechanism underlies our results, i.e., that Piedmontese communities had developed internal social structures that led them to display a lower propensity to violently rebel against the new rulers than their non-Piedmontese neighbors. To assess the plausibility of this channel, we repeat our analysis using non-Piedmontese linguistic enclaves as reference points. We inspect whether our results are replicated if distances from these enclaves are used as explanatory variables. We report the results in Table 5.

Columns 1–3 refer to Albanian enclaves, columns 4–6 to Greek communities. Columns 1 and 4 of Table 5 replicate the baseline specification on the full sample, using a dummy variable identifying the nearest Albanian or Greek ethnolinguistic enclave as the main independent variable. Columns 2 and 5 substitute the enclave dummy with the (log) travel time to the nearest enclave of the relevant group. Columns 3 and 6 repeat the same exercise in the restricted sample—that is, considering only municipalities that lie in the first quartile of the distribution of the distance from the closest enclave. Albanian and Greek ethnolinguistic enclaves do not show systematically different behavior from the average Italian municipality in terms of

Table 5 Placebo regressions

Dependent variable	Brigandage episodes per 1000 inhabitants					
	Albanian enclaves			Greek enclaves		
	(1)	(2)	(3)	(4)	(5)	(6)
Albanian encl.	– 0.246 (0.291)					
Travel time Alban. encl. (log)	0.081* (0.047)		0.030 (0.029)			
Greek encl.				– 0.176 (0.298)		
Travel time Greek. encl. (log)				– 0.016 (0.030)		– 0.042 (0.030)
Sample	Full	Full	1st quartile Albanian	Full	Full	1st quartile Greek
Observations	1855	1855	465	1855	1855	464
R-squared	0.348	0.349	0.567	0.348	0.348	0.305

This table replicates the baseline results (columns 3 and 6 of Table 2) using non-Piedmontese linguistic enclaves as reference points. Columns 1–2 and 4–5 run the analysis on the full sample of southern Italian municipalities; columns 3 and 6 use only the sample of municipalities which lay in the first quartile of travel time to the nearest relevant non-Piedmontese enclave. Geographical, distance, and municipal controls, population growth, and province fixed effects are included in all specifications. Standard errors clustered at the district level are in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

brigandage intensity. When considering the distance from the closest enclave in the full sample (column 2), Albanian communities may appear to display an effect similar to that found in our baseline result on Piedmontese municipalities. However, when restricting the sample to the first distance quartile, (column 3), the coefficient on the distance variable becomes small and not statistically significant. This result, combined with that of column 1, suggests that the forces behind the result in column 2 are of a different nature than those driving our main findings. Indeed, as we show in Table 3, our result is driven entirely by municipalities close to the Piedmontese enclaves. In the case of Albanian communities, however, neighboring municipalities do not display any mitigation of brigandage incidence. Greek enclaves are never associated with decreased brigandage. Overall, the results we report in Table 5 show that, unlike Piedmontese communities, neither Albanian nor Greek appear to affect brigandage incidence in their surroundings. The attenuation effect of the proximity to a linguistic enclave on the intensity of brigandage appears only when the enclaves with respect to which such proximity is evaluated are the Piedmontese communities. This seems to suggest that identity, and specifically the Piedmontese identity, played an important role in abating the rebellion against the new Piedmontese rulers.

5.3 Other explanations

Here, we discuss three other possible drivers of the lower intensity of brigandage in and around Piedmontese communities. Unlike the potential alternative explanations analyzed before, these cannot be addressed using a complete, municipal-level empirical analysis, forcing us to assess their plausibility using only historical evidence and/or aggregate data.

First, the inhabitants of Piedmontese enclaves and surrounding areas may have been simply better able to understand the content of the new provisions introduced by the Piedmontese. In Sects. 5.1 and B.4.1, we show that there is no significant variation in human capital moving closer to the enclaves; the absence of differences in measures of education makes it unlikely that people close to Piedmontese communities had a better understanding of the new laws and regulations, in terms of mere ability to read them by themselves. Also, conditional on educational levels, the dialect spoken in a municipality would not impact the understanding of standard Italian. Hence, there is no reason to believe that people living in or close to Piedmontese communities had any advantage in understanding laws and official documents.

Second, Piedmontese communities and their immediate neighbors may have provided recruits to the army in a larger proportion than other municipalities. This overrepresentation could have both reduced the community's incentive to revolt against the national army and ensured greater leniency by local soldiers toward their hometowns. To assess this possibility, we digitize district-level data from a report on military recruits in 1866 by the Ministry of War (Guerra 1869).²⁰ The recruitment rate, which depended on population, was virtually identical in districts with (0.205%) and without (0.211%) Piedmontese enclaves. Anyway, providing more recruits probably would have been ineffective in terms of receiving preferential treatment and/or discouraging the communities to revolt because (a) military officers were mostly selected among Piedmontese soldiers, and it was unlikely that local recruits could affect the behavior of entire military units, (b) military detachments were continuously relocated in response to strategic needs, and (c) the national recruitment system implied that soldiers recruited in a certain area would often train and serve in a different part of the country (Ilari 1989–1990).

Third, the new government may have been more inclusive toward the inhabitants of the enclaves and their surrounding areas—a friendlier approach that may have helped these inhabitants to better accept the new rulers. We weigh the likelihood of this channel by exploiting information on the origins of the *prefetti* (the representatives of the Ministry of the Interior at the local level). A higher incidence of *prefetti* born in the neighborhood of the Piedmontese enclaves could signal a more favorable attitude of the Piedmontese toward these areas. Data collected from Sepe and Mazzone (1998) indicate that none of the 45 officials nominated in 1861 and 1865 who were born in southern Italy was born in a Piedmontese enclave or in a district containing at least one enclave. Actually, there were only three *prefetti* born in the provinces where the enclaves are located, and just one of them was serving in the province of origin. In fact, the distribution of the origin of *prefetti* is extremely similar in all the southern Italian provinces, independently of the presence of Piedmontese enclaves.

6 A cultural interpretation

The results presented thus far suggest taking a further look at the negative correlation between distance from the nearest Piedmontese enclave and the intensity of the unrest. In this section, we propose and discuss a possible alternative explanation: a cultural

²⁰ Southern Italy was administratively organized into 56 districts, comprising approximately 33 municipalities each. Municipalities in districts that have at least one Piedmontese community lie within a 30 km radius from the closest enclave.

mechanism. We advance the hypothesis that people who were culturally more similar to the Piedmontese, either because of their ancestry or because they belonged to municipalities that historically interacted with Piedmontese enclaves, rebelled less after unification. First, we provide evidence of cultural persistence in Piedmontese enclaves and of horizontal socialization across municipalities. Then, we discuss two possible channels through which cultural proximity may have acted on the immediate reaction to the Italian unification process.

6.1 Persistence and social interaction: anecdotal evidence

The cultural link between the inhabitants of the Piedmontese enclaves and their ancestors is made particularly evident by the survival of ancestral linguistic traits, which is usually associated with the persistence of other, less evident, cultural traits.²¹ As reported in Sect. 2.2, dialects spoken in the enclaves displayed several analogies with Gallo-Romance languages and structurally differed from the dialect spoken in the surrounding region. In addition to their linguistic traits, Piedmontese communities retained other aspects of their ancestral culture: a contemporaneous report Vegezzi Ruscalla (1862) notes that the inhabitants of Guardia Piemontese maintained customs very similar to those of their Piedmontese ancestors in terms of clothing and attitudes toward property and work. Rohlfs (1972) also reports strong similarities in clothing between inhabitants of Guardia Piemontese in the first half of the 19th century and their Piedmontese ancestors.

Geographical isolation favored cultural persistence in Piedmontese enclaves but did not inhibit social interactions with neighboring communities. The first channel of social interaction was trade between Piedmontese settlements and nearby municipalities. Historical sources attest that some of the Piedmontese communities were not self-sufficient, necessitating frequent commercial exchanges in local markets and fairs.²² Another channel of interaction was intermarriage. Vegezzi Ruscalla (1862) reports that after the Reformation, Guardia's citizens were sometimes induced to marry outside their own community. While there is no easily available record of local marriages, we gain some insight by exploring the local diffusion of Gallo-Italic surnames in the Basilicata region. Rohlfs (1985) identifies 22 surnames that are likely to derive from historical Piedmontese migrations (Fig. A.5 in the Appendix reports the original list). The author also reports the municipalities in which these surnames are relatively frequent. We observe that their distance from the closest Piedmontese enclave is on average around 30 km. This evidence supports our conjecture that Piedmontese descendants were able to interact with nearby communities.

Further, given the geographic isolation of our communities of interest, linguistic admixture is a distinct sign that some form of social interaction must have taken place. Mennonna (1987) states that the dialects of the Piedmontese enclaves of Basilicata had influences on

²¹ A growing empirical literature studies the relationships among ancestry, language diffusion, and cultural persistence over time and space: see Spolaore and Wacziarg (2016) for further details. In a recent contribution, Galor et al. (2020) show that linguistic characteristics such as the presence of periphrastic future tense and the presence of sex-based grammatical gender have an impact on educational attainments via the indirect effect of ancestral cultural traits.

²² For example, Bitonti (2012) documents that both Celle di San Vito and Faeto had frequent contacts with neighboring municipalities in the 15th century, particularly in establishing a commercial partnership with the town of Ariano Irpino. However, historical records do not contain evidence of long-distance trade by such inland communities. In particular, we found no mention of trade being carried out between Piedmontese communities in southern Italy and Piedmont itself as the land of origin.

the (non-Gallo-Romance) dialects of neighboring towns because of economic and cultural exchanges among bordering municipalities. Rohlf's (1988) reports minor Gallo-Romance influences in the—otherwise Southern—dialects of the towns of Avigliano, Cancellara, Ruoti, and Trivigno, all close to the northernmost cluster of Piedmontese enclaves in Basilicata. Similar elements are also found in the dialect spoken in Maratea, near the southernmost cluster.

We empirically explore the relationship between linguistic admixture and geographical distance from the enclaves by collecting new data from the *Linguistic Atlas of Basilicata* (Del Puente 2010), which reports for all the municipalities in Basilicata a number of commonly used words in the local vernacular. Specifically, we focus on the position of the possessive adjective in relation to the noun. Del Puente (2010) remarks on how southern Italian dialects postpone the possessive adjective after the corresponding name (e.g., *my mom* would be *mama meje*) while Gallo-Italian dialects—similarly to northern Italian dialects—place the possessive adjective before the noun (e.g., *my mom* would be *me mama*). The atlas reports the position of the possessive adjective for 10 words (*my father, my mother, my son, my sons, my daughter, my daughters, my brother, my sister, your brother, your brothers*), so for each municipality, we compute the share of words that have the possessive adjective placed before the name. Not surprisingly, in the Piedmontese enclaves, the possessive adjective is always placed before the corresponding name. We then test whether placing the possessive adjective before its corresponding word is significantly associated with the distance from the Piedmontese enclaves. A significant result would reflect a northern linguistic influence around the Piedmontese enclaves.

We correlate the share of words where the possessive adjective is placed before its corresponding noun and the travel time to the closest Piedmontese enclave, including all the controls of the baseline model. Column 1 of Table 6 reports the result. The coefficient of interest is negative and statistically significant, suggesting that the closer a municipality is to Piedmontese enclaves, the stronger the Gallo-Italic influence is on spoken language. This finding corroborates the existence of social interactions between Piedmontese enclaves and nearby communities—it suggests that the intensity of those interactions depended on geographic distance. We can conjecture that frequent interactions could have either reduced prejudice and improved intergroup relations or generated a diffusion of some Piedmontese cultural and social norms, or both.²³

6.2 Discussion

Although a complex mix of socioeconomic factors might be responsible for the different degrees of social unrest during the process of Italian unification, our analysis indicates that cultural proximity to the new rulers translates into lower propensity to rebel than in other communities. We now discuss two possible mechanisms by which culture can generate such different reactions. We limit our attention to two aspects of the unification process: who implemented the unification and how the process was carried out. The first mechanism we have in mind is social identification and it pertains to the identity of the new rulers. The

²³ There is an extensive literature documenting how cultural and social norms spread through frequent contact. For a review of the economic analysis of cultural transmission mechanisms, see Bisin and Verdier (2011). Examples of horizontal cultural transmission can be found in Fogli and Veldkamp (2011) and Spolaore and Wacziarg (2022). Similarly, there is broad literature in social psychology and political science that links cross-group interaction, prejudice, and intergroup cooperation (see Pettigrew and Tropp 2006 for a review).

second mechanism is a clash between local social norms and the content of the institutional framework and the policies implemented by the Piedmontese. It is worth stressing that the two mechanisms we propose are not intended to be mutually exclusive, and do not exclude other mechanisms that we cannot quantify.

Social identification. The first mechanism is based on the concept of social identification, often appearing in social psychology (Tajfel et al. 1971) as well as in the political economy literature (Sambanis et al. 2012; Atkin et al. 2021). In our context, the arrival of the Piedmontese might have heightened the sense of local cultural identity, along mechanisms similar to those described by Fouka (2020) and Dehdari and Gehring (2022). On the one hand, the average southern community (an “ingroup”) considers the new rulers from Piedmont as a rival “outgroup”. Piedmontese descendants, on the other hand, identify themselves with Piedmontese rulers based on common ancestry or other traits. This process of social identification mitigates the intensity of brigandage in and around Piedmontese enclaves, for example by increasing the perceived legitimacy of the new rulers or inducing better expectations about the new government’s actions. Hence, communities with Piedmontese ancestry may have had a more favorable ex-ante attitude toward the new Piedmontese rulers.

We explore the potential difference in such attitudes by exploiting data on voluntary soldiers (known as *Garibaldini*) who joined General Garibaldi during the Italian unification campaign of 1860. The State Archives of Turin collected individual-level information on 35,000 voluntary soldiers from different historical sources. We digitized the municipality of origin of each soldier to detect the overall contribution of each community to Garibaldi’s expedition. The presence of *Garibaldini* in a municipality may reflect a positive inclination toward Piedmontese rulers, even before Italian unification was completed. We report the result of this exploratory analysis in column 2 of Table 6, where we relate the logarithm of the number of volunteer soldiers born in a municipality to the travel time to the closest Piedmontese community. The result suggests that the number of *Garibaldini* is negatively and significantly correlated with the distance from Piedmontese communities.²⁴ Thus, municipalities closer to Piedmontese enclaves had a higher participation rate in Garibaldi’s 1860 expedition, supporting the view that geographic distance from Piedmontese enclaves partly reflects differences in cultural proximity to the Piedmontese among southern municipalities and, specifically, differences in ex-ante pro-Piedmontese attitudes.

The greater contribution of the Piedmontese enclaves and their surroundings to Garibaldi’s campaign is consistent with a tendency by these communities to identify with the Piedmontese, which would in turn attenuate their propensity to join in the reaction against the new rulers. On the contrary, we believe it is highly unlikely that Piedmontese rulers socially identified with the Piedmontese enclaves. Indeed, to the best of our knowledge, there is no document—no informal, first-hand accounts, no personal diaries by Piedmontese officials—indicating that the Piedmontese were even aware of the peculiar origins of such communities.²⁵ *A fortiori*, we found no document that testifies to a different attitude toward these communities.

²⁴ Results are virtually unchanged if we add to the covariates the distance of each municipality from the path followed by Garibaldi during his march toward Naples, in order to control for possibly lower costs of joining his army if such a path lay close by.

²⁵ A possible exception is the community of Guardia Piemontese, which stood out, as described in Sect. 2.2. However, any concern here should be allayed by the fact that all our main results hold if Guardia is excluded from the group of Piedmontese enclaves, as shown in Table B.5.

Table 6 Cultural proxies and distance from the enclaves

Dependent variable	Sh. Possessive before (1)	Garibaldi (log) (2)	Monastery dummy (3)
Travel time Piedm. encl. (log)	− 0.089*** (0.008)	− 0.055* (0.029)	0.012** (0.005)
Sample	Basilicata	Full	Full
R ²	0.491	0.480	0.327
Observations	124	1855	1855

The dependent variable is indicated in the column headings. *Sh. possessive before* is the share of words that have the possessive adjective placed before the noun. *Garibaldi (log)* is the logarithm of the number of volunteers in Garibaldi's 1860 campaign born in each municipality. *Monastery dummy* is a dummy variable that equals 1 if at least one Franciscan or Cistercian monastery is located within the municipality. Geographical, distance, and municipal controls, population growth, and province fixed effects are included in all specifications. The bottom of each column reports the sample used for each specification. Standard errors clustered at the district level are in parentheses. For a detailed description of the variables, see Section C of the Appendix. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Institutional transfer: a clash of content. Looking at the timing of brigandage evolution, it emerges that no major brigand bands formed to directly oppose Garibaldi's first occupation of the southern provinces and that autonomous organizations began appearing in conspicuous numbers only once Garibaldi's military gave way to Piedmontese official rule.²⁶ This suggests that we may interpret brigandage also as a form of resistance to the institutional transplantation and policy reforms occurring during the first years of national unification.²⁷

Hence, a second potential mechanism is the clash between local values and the content of specific Piedmontese institutions. Acceptance of the new set of institutions may depend on the “goodness of fit” with the cultural traits of the recipient communities (Dryzek 1996; De Jong and Mamadouh 2002; Lecce and Ogliari 2019). In the context of Italian unification, common ancestry could be the source of cultural proximity that made Piedmontese enclaves and nearby communities more in tune with some of the transplanted institutions.

We explore this potential channel by focusing on religiosity. Historians have highlighted the anticlerical content of the new norms as one of the main aspects of the new institutional framework that deeply affected southern Italian communities and served as a catalyst for their mobilization. Differences in religiosity between the enclaves and the rest of southern Italy may have impacted the propensity to rebel and are extremely persistent, they can still be detected nowadays.²⁸ Even more interestingly, we find that a historical proxy for

²⁶ As discussed in Sect. 2.1, in the earliest phase, brigand bands were often created with the support of the former court and of the Church.

²⁷ As mentioned in Sect. 2.1, Italian unification also entailed a transfer of the system of Piedmontese institutions onto the annexed territories of southern Italy. The Piedmontese constitution became that of the newly formed state, the whole administrative and judicial system of Piedmont was extended to the rest of Italy and high-level administrative positions were largely assigned to Piedmontese officials. Continuity with the earlier Piedmontese kingdom was also emphasized by two measures of extreme symbolic value: the regnal number of the king—Victor Emmanuel remained “the second” instead of becoming the “first” king of Italy—and the extension of the Piedmontese currency to the whole kingdom, rather than its replacement with a brand new currency.

²⁸ For example, most Piedmontese communities are still characterized by a lower share of religious marriages than the average municipality in their province (based on 2014–2016 data from the Italian National Statistical Institute, Istat).

religiosity—the diffusion of places of worship—also significantly distinguishes Piedmontese communities and their neighbors from other southern municipalities.

To build such a measure, we geolocate Cistercian and Franciscan monasteries. The choice of focusing on these monastic orders depended (besides data availability) on the fact that Cistercians and Franciscans enjoyed considerable, stable diffusion in southern Italy between the 13th century and the early 19th century. All monasteries in our sample were founded well before Italian unification and, in most cases, were suppressed either in the Renaissance or during the Napoleonic era.²⁹ Hence, their diffusion is likely to reflect underlying religiosity rather than the presence and influence of the clergy during Italian unification. We test whether the historical presence of monasteries in a municipality is associated with distance from Piedmontese enclaves. Column 3 of Table 6 reports the result of a regression analysis of the historical presence of a Cistercian or Franciscan monastery in the municipality on the distance from the closest Piedmontese enclave. We can thus verify that the presence of a monastery becomes less likely as one moves closer to Piedmontese communities.³⁰

Consistent with our previous results, this finding corroborates the idea that communities of Piedmontese descent and their neighbors display different cultural traits with respect to other southern municipalities. Lower religiosity in these communities may have made them more willing to accept some of the anticlerical laws that came with the unification. As for the previous social identification channel, reduced resistance in these communities still spurs from shared traits with the Piedmontese. However, here the impact of these common traits takes effect via the mediation of specific institutions. Naturally, one may expect that other characteristics besides religiosity may have contributed to a better fit of Piedmontese communities and their neighbors with some of the transplanted institutions.

7 Conclusions

This paper analyzes the drivers of brigandage, a wave of unrest that took place during the Italian unification. Using historical sources, we construct a novel, fine-grained dataset that allows us to evaluate the intensity of this phenomenon at the municipal level. We relate this measure to the distance (in terms of travel time along the quickest path) of each municipality from the nearest of 10 communities descending from Piedmontese settlers. Across several model specifications and using a variety of controls, we find robust evidence that proximity to the nearest Piedmontese community is *ceteris paribus* associated with a lower

²⁹ A list of Cistercian monasteries can be found at <https://www.cistercensi.info>. A list of Franciscan monasteries existing around 1350, compiled by M. van der Heijden and B. Roest, is available at <https://applejack.science.ru.nl/franciscanauthors/>. The precise date of cessation is available only for Cistercian monasteries.

³⁰ A piece of evidence testifies to how these differences might be derived from an ancestral lower level of religiosity of the Piedmontese settlers: international data on Franciscan institutions reveal that through the Middle and Modern Ages, there was a striking difference in the concentration of monasteries between the regions where Piedmontese settlers originated and southern Italy. Computation on geolocalized monasteries allow us to identify 58 entities in the regions of Piedmont, Liguria, and Provence (which together cover around 62 sq km), and 218 in southern Italy (around 73 sq km). That is, the concentration of monasteries relative to total area in the three main regions of origin of Piedmontese settlers was less than a third that of their destination. Lower attachment to the Catholic Church in Piedmont, Liguria, and Provence may be linked with the abnormal intensity in heretical movements in the area, which also led the Piedmontese and Provençal valleys to later host a substantial number of Protestant communities—among historians, there is some debate on this last point.

intensity of brigandage, especially at short distances. We find that observable socio-economic characteristics that might in principle explain a lower incidence of conflict do not in fact differentiate the enclaves and their neighbors from the average municipality in the sample, and cannot thus be the main forces behind our results.

We show evidence documenting cultural persistence in and diffusion around communities of Piedmontese descent and we interpret our results as evidence in favor of the hypothesis that geographic distance also reflects cultural distance from the Piedmontese rulers. Corroborated by suggestive evidence that quantifiable historical proxies of selected cultural traits are correlated with proximity to the Piedmontese enclaves. We collect novel data on voluntary soldiers who joined Garibaldi's campaign and on Cistercian and Franciscan monasteries to discuss two possible mechanisms that could be at play in this context: social identification with the Piedmontese rulers, and a cultural clash between local values and the specific content of some of the new institutions and policies brought by the Piedmontese.

In a broader perspective, our results contribute to the existing debate on the causes of failures of state formation processes. Today, as in the past, many grievances that governments face can be traced back to flaws in the formation and consolidation of modern states. Although we analyze a specific historical environment and extrapolation to other contexts might be hazardous, our findings support the idea that cultural heterogeneity hinders the perceived legitimacy of the new state and that populations seeing the new rulers as culturally distant, or the policies they implement unaligned with local social norms, have a higher propensity to rebel.

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