Voter turnout and inheritance rules:

Evidence from a border region

Andrea BONOLDI
University of Trento

Chiara DALLE NOGARE
University of Brescia

Niklas POTRAFKE
Ifo Institute
Leibniz Institute for Economic Research at the University of Munich

Abstract

The Downsian model of rational voting does not adequately explain high voter turnout when an agent's vote is not pivotal. This is the case in South Tyrol, an Italian province on the border with Austria. We maintain that voting is expressive in South Tyrol, especially in areas with many entailed farms (*geschlossene Höfe*), land properties the inheritance of which is regulated by a local law, similar to primogeniture, rooted in the German cultural background of the area. We use data for 116 South Tyrolean municipalities over the period 1998-2010. The results show that the number of per capita entailed farms increases voter turnout. We suggest that entailed farms induce in their owners a self-perception as guardians of the community's cultural values.

JEL: D72, K11, Q15

Keywords: voter turnout, inheritance rules, entailed farms, identity

1. Introduction

Scholars examine why people vote. Since Downs (1957) formulated the paradox of voting, highlighting the incompatibility of rational behaviour with voting when one's decision is not pivotal and voting is costly, many studies have tried to find ways out of it. In fact, it is rather unlikely that the high turnout rates one observes in the real world are the consequence of irrational behaviour.

A proposed solution to the paradox is the "expressive voting" hypothesis.[1] Expressive voting takes place when agents derive utility not just from the material consequences of their casting a vote for their preferred candidate, but also from one's compliance with voting. Geys (2006) warns against the danger to consider expressive voting per se as the solution to the paradox of voting: as any action can be explained by making the appropriate post hoc assumption, all predictive power is lost. In other words, the expressive voting hypothesis is a tautology unless we can identify the reasons why some people are expressive and some are not. Schuessler (2000) showed the way out of this impasse: to draw from social theory and anthropology.

We follow this approach and aim to identify the determinants of voting in a specific geographical context: South Tyrol, an Italian mountain province on the border with Austria.[2] This area, characterised by the presence of different ethno-linguistic groups, was the home of an anthropological field study in the late 1960ies the result of which was a classic in ethnography: "The Hidden Fronteer" (Cole and Wolf , 1974). Cole and Wolf investigated the differences in behaviour and social interaction between the inhabitants of two close villages, German-speaking S. Felix and Italian-speaking Tret. They concluded that many of the observed differences had to do with the distinct ways property was transmitted form one generation to the other, and highlighted the singularity of the legal institution called *geschlossener Hof,* typical of the local German culture. A *geschlossener Hof,* or mountain entailed farm, is an agricultural property that cannot be split, and has to be passed on to just one heir, usually the first son by the local tradition. The Italian counterpart is equal treatment of all siblings and owners' power to dispose of their properties at will.

We examine whether the presence of entailed farms makes a difference for voter turnout. We use data on the geographical distribution of entailed farms and, using regression analysis, we test whether the South Tyrolean municipalities with the highest concentration of entailed farms show

[1] On what predicts voter turnout see, for example, Frey (1971), Uhlaner (1989), Schram and van Winden (1991), Brender (2003), Geys (2006), Gerber et al. (2008), Harder and Krosnick (2008), Rolphe (2012), Martins and Veiga (2013), Smets and van Ham (2013), Artés (2014), Hillman et al. (2015), Kauder and Potrafke (2015).

[2] South Tyrol, also known as Alto Adige or Bolzano province, is an unexplored object of investigation in the field of social choice and political economy. Many studies using data for Italian municipalities exclude South Tyrol because its autonomous status makes it not easily comparable with the other parts of Italy (see for instance Gennari and Messina, 2014).

significantly different turnout rates. To our knowledge, this is the first time these data are used in quantitative analysis. We consider data over the period 1998-2010 and control for shoe-leather costs, peer effect and weather indicators as well as for demographic composition. We rule out that the number of entailed farms captures effects other than the very inheritance rule, such as municipalities' ethnical composition and agricultural vocation. We show that, indeed, inheritance rules have an impact on turnout. In the specific South Tyrolean case, this may be due to the fact that entailed farms' inheritance rule invests their owners with the awareness of being instrumental to the persistence of a value system that enhances in them the desire to use voting as a way to re-affirm to oneself and to others one's identity. In this sense, Schuessler's thesis that voting has to do with identity is confirmed.

2. South Tyrol: cultural and political context

Alto Adige-South Tyrol, the northernmost province of the Italian Republic, enjoys a special regime of political autonomy, based on the specificity of its historical experience (Steininger 2003). In the early Middle Ages many people of German origin migrated to this mountainous area, while native Romansh language speakers remained confined in few valleys in the Dolomites and Upper Venosta-Vinschgau. Since 1363 up until World War 1 part of the Habsburg territories, South Tyrol was then annexed to Italy. After coming to power, the fascist regime tried to italianize the land through a drastic compression of the rights of the German-speaking population and promoting immigration from the Italian provinces. The Paris Agreement of 1946 between Austria, Italy and the victorious powers stated that South Tyrol would remain part of Italy, but ensured large areas of self-government and protection of the cultural identity of the German speaking group. Nowadays, according to the 2011 census, 62.3% of the population belongs to the German linguistic group, 23.4% to the Italian one, 4.1% to the Ladin (Romansh speaking) minority, and 10.2% to other groups (Astat 2013). The Italian-speaking population is concentrated almost exclusively in few urban centers (Bolzano-Bozen, Merano-Meran and Laives-Leifers).

A strong separation between language groups, with the aim of maintaining the unique characteristics of the German-speaking population, has been pursued especially through cultural and educational policies. Assignments of jobs and public resources (grants, public housing etc.) are strictly defined according to the relative weight of the linguistic groups. In fact, since the end of World War 2 the province has been ruled by Sűdtiroler Volkspartei, centrist and Catholic-inspired, representing the German-speaking population.

South Tyrol is the second wealthiest Italian province as measured by per capita GDP (after Milan) and enjoys 17th place in Europe (Eurostat NUTS 2 regions, 2011). Provincial value added is composed as follows: 75% services, 21% industry, 4% agriculture (Istat, 2011 data). However, in 1950 South Tyrol was in 57th place as for per capita GDP among the 92 Italian provinces, with a population still mainly employed in agriculture.[3]

Though small in terms of employment and value added, the agricultural sector still enjoys wide esteem by the local population, who considers farmers as the traditional guardians of cultural identity and also associates farmers with the ecological control of the mountain territory (Maurer, 2009). This high consideration also comes from the historical role played by farmers in this area. Tyrolean peasantry have enjoyed, since the XV cent., a privileged position in comparison to the farmers of other parts of the Habsburg monarchy. In fact, Tyrolean peasants had their own representatives in the provincial Diet as well as clergy, aristocracy and the city (Kofler, 1985).[4] As a consequence of this peculiar historical experience, even in more recent times the farming community in South Tyrol has been able to express a strong political representation. Farming is also associated with a sense of belonging to a definite social group, with a strong farmers' association able to exercise lobbying pressure and with assiduous voting.

There is a legal institution in South Tyrol that is unique within the Italian legislation: the entailed farm (Mori and Hintner 2013; Poggeschi 2008). The term (*geschlossener Hof* in German) identifies a farm which, at the death of the owner, is not divided among the heirs, but goes to only one person, usually one of the children. The other heirs are entitled only to a compensation proportional not to the value of the land, but to its production. In modern times, most of the other heirs do not stay at the farm as subordinates, as it once used to be, but they generally pursue a career in the service industry. Consequently, the other heirs usually leave the village and go to town.

The owner of an entailed farm cannot, unless special authorization, dispose of the property, which must be understood, therefore, as an organic whole to be transmitted from father to son. This exception to the principles of Italian private law (equal treatment of co-heirs, free disposal of property by the owner) is the result of a historical evolution. The origins of this institution are to be found in the Germanic law, which in some areas tended to favor the right of the family (*Sippe*) than that of individuals. In the Alps entailed farms have been present since the Middle Ages, almost

[3] Land development was the result of a mix of external factors - increasing external demand for quality agricultural products and for the tourism sector, development of the road and rail Brenner axis- and generally well oriented local policies, favored by the considerable financial resources guaranteed by the autonomy (Leonardi 2009; Bonoldi 2009).
[4] In South Tyrol primary education became mandatory as early as in 1774, following the introduction of the "Allgemeine Schulordnung" by empress Maria Theresa (Augschöll, 2004)

exclusively in German-speaking areas. Tyrolean entailed farms were formalized with ad-hoc regulations in 1526, 1770, 1795 and 1900.

In the Fascist period the imposition of the Italian legal framework implied that entailed farms formally disappeared in 1929, but most entailed farms kept being run according to the old tradition. In fact, out of the thousands of entailed farms recorded in 1929, only 6% had dissolved in 1954, when the new autonomous province of Bolzano reintroduced the institution.[5] The long lasting success of the entailed farm in the Alpine contexts is due to economic reasons. In a difficult environment such as mountain agriculture, an entailed farm ensures over time enough income to support a family, preventing excessive partitioning and the consequent choice of abandoning the mountains. Entailed farms are much more present at higher altitudes. Entailed farms are also more widespread where breeding is important, for reasons related to the type of land and climate (Bätzing 2003, Schennach 2003).

There is survey data evidence based on a stratified sample of 343 South Tyrolean mountain farmers on farmers' perception of the importance of their role as producers of positive externalitites (Vogel et al. 2007, 2009). Out of the 9 suggested non-commodity productions, "maintenance of traditional culture" ranked second as to the percentage of "very important" (71.1%), preceded only by "preservation and maintenance of landscape" (95%).[6] Vogel et al. (2007, 2009) maintain that the very high ranking of these tasks in mountain farmers' valuation of their role has to do with their feeling essential for the mountain farming value system, centred around the intention of passing on the farm from one generation to the next. In this sense, the entailed farm inheritance rule plays a crucial role.

3. Data and descriptive statistics

We use turnout at different elections that took place over the period 1998-2010. Table 1 shows the average municipal turnout at each election. Voter turnout in South Tyrolean municipalities has always been quite high if compared to the other Italian regions and other European countries, and even more so in the case of national and provincial elections.[7] For example, average voter turnout

[5] The matter is currently regulated by a provincial law in force since 2001.

[6] As art historians point out, landscape is itself an essentially cultural notion, as opposed to environment (Settis, 2012). The survey also asked mountain farmers to consider their role in environmental protection. Apart from the very high self-appreciation as safeguards against natural disasters, all other functions related to environment are characterised by a much lower number of answers:"very important".

[7] The only exceptions are the two constitutional referenda we consider. If we compare the South Tyrolean turnout to the Italian average turnout in the same referenda, however, the former is higher. Out of a number of referenda taking place in the decade, we consider only these two for two reasons: they did not require 50%+1 of the votes to be valid and they were about general issues (modifications of the national constitution).

was 84.24% in the provincial elections in 2008, 85.57% in the national elections in 2008, 56.64% in the elections to the European Parliament in 2009, and 79.79% in the municipal elections in 2010. In a similar vein, voter turnout across municipalities varies less compared to many other countries and regions. The standard deviation in voter turnout was 4.37% in the provincial elections in 2008, 2.65% in the national elections in 2008, 5.55% in the elections to the European Parliament in 2009, and 5.10% in the municipal elections in 2010.

Since South Tyrol is an autonomous province of Italy, the role of central government is relatively small and the provincial government has many governmental functions (health, schools, transport infrastructure etc.). However, national elections are still important to the local electorate, because being represented by a single local party in national Parliament is seen as a way to better defend the very autonomous status, which is guaranteed by an international treaty with Austria but it is de facto negotiated in its contents every now and then with a redefinition (enlargement) of competences attributed to the local government.

We use data on entailed farms in each municipality in the year 2009 for the estimates of the 2008-2010 election turnout, and data on entailed farms in each municipality in the year 1991 in a panel data model to predict voter turnout over the period 1998-2010. The data on entailed farms have been compiled by Schuler (1992) and Mori and Hintner (2009).

Mori and Hintner show that 80.8% of the entailed farms are owned by a single person, and that only 1.8% are owned by companies, the Catholic Church or other collective entities.[8] The number of entailed farms somewhat varies from year to year because, upon request, a farm can be partitioned into two or dissolved, and a new farm can be set up; there is a special commission considering these requests and deciding according to a detailed law regulating the issue. However, the number of these requests is very small (20-40 cases every year) with respect to the total number of entailed farms (more than 13.000). In fact, there is no strong incentive to dissolve entailed farms, because the owner cannot dispose of the land freely when this occurs: the land of the entailed farm may be sold only to other entailed farms nearby. Regarding the constitution of new entailed farms, it is true that since the re-introduction of the institution in 1954, entailed farm owners enjoy special credit conditions (justified by the fact that they have to pay their brothers and sisters a compensation) and somewhat looser restrictions as to construction licenses.[9] On the other hand, the permanent change in the inheritance rule is likely to give rise to disruptions within the family. Another case of creation of a new entailed farm takes place when the committee is asked to split an entailed farm into two entailed farms. This is possible only in the case the two new farms can both guarantee income for

[8] 17.3% are owned by more than one person: Mori and Hinter claim that this is the typical case of a farm temporarily in the process of being assigned to a single owner after its previous owner's death.

[9] Some entailed farms have become agritourism farms in the last decades.

four adult people. The creation of a new entailed farm is thus unlikely because the original entailed farm would need to be extremely productive (Mori and Hintner, 2013). Therefore, most entailed farms are quite old institutions. The correlation coefficient between the number of entailed farms in each municipality in 2009 and in 1929 is 0.88. Data on the distribution of entailed farms in 1929 were compiled by Agostini (1962).[10]

The number of per capita entailed farms varies across the municipalities in South Tyrol (Figure 1). The main reason is the variance of the absolute number of farms: Table 2 shows that a South Tyrolean village may host from 6 to 396 entailed farms. In particular, the North-western part of the province (Vinschgau-Venosta) and the municipalities around Bolzano-Bozen in the Etsch-Adige valley (the largest plain in the area) have on average just a few entailed farms. This clearly has to do with the history of these areas: Vinschgau, on the border with Switzerland, was a Romansh-speaking area up until the 17th century, while the villages in the Etsch-Adige valley, where the land is not steep and more fertile, developed as early as the XVI century an economy based on the production of fruits and wine for the market and on trade, and so it was less compelling to preserve land property from fractionalisation.[11]

Table 3 shows the correlation between voter turnout of individual elections and our explanatory variable of interest, per capita entailed farms. The correlation coefficient between per capita entailed farms in 2009 and voter turnout in the elections to the European Parliament in 2009 is 0.31, in the 2008 national elections 0.29, in the 2008 provincial elections 0.58, and in the 2010 municipal elections 0.52.

4. Empirical strategy

The cross-sectional econometric model has the following form:

[10] 20% of the 1929 data are missing, and we are working on archive material to fill the gaps. We can safely maintain that the 1929 data are completely exogenous. Before 1929 public policies favouring entailed farmers owners were not present, so the main source of endogeneity is ruled out. One could argue that, in the course of history, rapid changes in land productivity in certain areas of South Tyrol may have favoured the proliferation of entailed farms through their splitting, yet this is unlikely. Indeed, land productivity had a rapid increase the last decade before World War 1 (Leonardi, 1996), but this happened almost exclusively in the Adige-Etsch valley, the flattest part of South Tyrol where entailed farms were rare. Entailed farms are typical of mountain farming, which remained subsistence farming with no use of machinery for a long time after 1929.

[11] Also the small cluster of villages of the valleys in the South-eastern part of the province have a lower proportion of *geschlossene Höfe*. This is the area where most people speak Ladin, a language of Latin origin similar to Romansh. Of the two Ladin valleys, only one (Gardena) seems however to be associated with less entailed farms, confirming the thesis by which not only culture, but also ecology had a role in determining the success of the institution (Cole and Wolf, 1972).

$$y_i = \alpha EntFarms_{i2009} + \beta X_i + \varepsilon_i$$

where y_i is voter turnout in municipality i, *EntFarms* describes the number of *geschlossene Höfe* over population in 2009 in municipality i, X is a set of control variables and ε is the error term.
We also pool all the data on turnout of the elections over the period 1998-2010 and estimate the following model:

$$y_{it} = \alpha EntFarms_{i1991} + \beta X_{it} + \varepsilon_{it}$$

We include four control variables that have been shown by previous contributions to predict voter turnout. Surface accounts for shoe leather costs. Population is intended to capture peer effects, while population over 65 over total population accounts for the possible difference in voting behaviour of the elderly. We collected data on the quantity of rain fallen on the considered election dates as recorded by the 30 weather stations of the province, and imputed them to the nearby municipalities. Nearness has been defined case by case taking into account mountain peaks and chains. As in the elections around 2009 hardly any rain fell in all areas of South Tyrol, we consider this explanatory variable only in the pooled data regressions. Appendix 1 summarises the sources of the data we use in our empirical analysis, and Appendix 2 their summary statistics.
We estimate the model by OLS with standard errors clustered at the municipal level; we also show random effects estimates of the panel data model.

5. Results

5.1. Baseline results

Table 5 shows the regression results. The number of per capita entailed farms is statistically significant at the 1% level, the type of election and including/excluding other explanatory variables notwithstanding.[12] The numerical meaning of the effect of entailed farms on voter turnout somewhat differs across the type of election. Voter turnout in the national elections in 2008 increases by about 0.39 percentage points when the number of per capita entailed farms increases by one (column 2). In other words, voter turnout in the 2008 national elections increases by about 0.89 percentage points (about 0.34 standard deviations) when the number of per capita entailed

[12] Inferences do not change when we estimate the model with classical standard errors or standard errors robust to heteroskedasticity not clustered at the municipality level.

farms increases by one standard deviation. In the 2008 provincial elections, voter turnout increases by about 2.52 percentage points (about 0.56 standard deviations) when the number of per capita entailed farms increases by one standard deviation (column 4). In the elections of the European Parliament in 2009, voter turnout increases by about 2.41 percentage points (about 0.43 standard deviations) when the number of per capita entailed farms increases by one standard deviation (column 6). In the 2010 municipal elections voter turnout increases by about 2.18 percentage points (about 0.43 standard deviations) when the number of per capita entailed farms increases by one standard deviation (column 8).

The effect of entailed farms on voter turnout in provincial elections was thus larger than in national elections. The effect is however quite small. It is conceivable that there is no impact of the presence of entailed farms on the turnout behaviour of the *whole* of the population of a municipality. Since an entailed farm is generally owned by just one person, the estimated parameters show how turnout changes when the ratio of entailed farm *owners* (and possibly their spouse) to population changes. We conjecture that the positive sign of the estimates indicates that entailed farms owners go to the polls more often. The larger estimates in the local elections indicate that entailed farms owners better express their identity through voting at the local level. The per capita entailed farms variable explains quite some variation in voter turnout in provincial and municipal elections. The partial R-squared of the per capita entailed farms variable is 0.33 and 0.28 in provincial and municipal elections. By contrast, the partial R-squared of the per capita entailed farms variable is 0.08 in national elections and 0.10 in elections to the European Parliament.

We have also pooled the elections and estimated a panel data model using the number of entailed farms in 1991 over municipal population in the same year as main explanatory variable. The number of per capita entailed farms remains statistically significant at the 1% level (columns 9 to 11), while all controls are significant, too.[13] This is remarkable, because the dataset is, in these regressions, quite large and includes different types of elections.[14]

5.2 Robustness checks

We have included education measured by the number high school diploma holders and university degree holders over population in 2001. The education variables do not turn out to be statistically significant and including the education variables does not change the inferences regarding the per capita entailed farms.

[13] If we use year dummies, only rain turns insignificant, while all the rest of the analysis is unaffected.
[14] These results are robust to the exclusion of the two constitutional referenda.

We have excluded Bolzano-Bozen and Merano-Meran, the two towns of the province, from the sample. Our results are robust to this change in the dataset.

In the case of national elections and European elections data on valid votes are also available, so we checked whether considering valid votes made a difference. The per capita entailed farms variable remains statistically significant. The point estimate of the per capita entailed farms is larger than in the baseline model.

The number of per capita agricultural firms has a positive coefficient and is statistically significant at the 1% level when we do not include per capita entailed farms in the regressions comprising all elections between 1998 and 2010. When we include the number of per capita agricultural firms and per capita entailed farms, the former lacks statistical significance and the latter remains statistically significant and similar in value to its estimate in the baseline model. This finding indicates that it is the inheritance rule per se, not the relative weight of agriculture in a municipality's economy to predict voter turnout.

We come to similar conclusions if we add variables capturing the ethno-lingustic composition of the municipality. At every national census the inhabitants of South Tyrol are asked to answer an extra question on their (feeling of) belonging to either linguistic group.[15] We used the ratio of German-speaking and Ladin-speaking to total municipal population in 2001 as the only explanatory variables at first, with the Italians as reference group. The Ladin-speaking ratio variable has a positive sign and is significant at the 10% level; the coefficient estimate is however small. The coefficient estimate of the German-speaking ratio variable is also small but does not turn out to be statistically significant. When we include our entailed farms variable, the Ladin variable does not turn out to be statistically significant. The coefficient estimate of German-speaking ratio variable is negative and significant only when other explanatory are included. The entailed farms variable remains statistically significant and the coefficient estimate is somewhat larger than in the baseline model.

An interesting question is whether entailed farms measure the impact of a specific inheritance rule or the level of social or civic capital. In fact, the correlation between the ratio of entailed farms and the number of volunteers, both per capita, is significantly positive (0.43).[16] We regressed the 2010 municipal elections and the 2009 European elections turnout on the number of per capita volunteers in 2011.[17] The number of per capita volunteers in 2011 has a positive sign and

[15] This extra question, called "linguistic census", is a controversial issue in local politics. Some question that the answers are sincere; there is possibly an overestimation of the declaration to be part of the German group.
[16] South Tyrol always ranks very high in Italian regions' social capital and human development indexes.
[17] The number of volunteers at the municipal level is only available for the year 2011 (ASTAT). We contacted the main volunteers' organisation of the area, UVF (volunteer fire fighters), and they assured us that the numbers vary very little from one year to the next.

is statistically significant when no other explanatory variables are included. When we include the number of per capita entailed farms, the number of per capita volunteers in 2011 lacks statistical significance and the per capita entailed farms variable remains positive and statistically significant.

6. Conclusions

Our results show that the number of per capita entailed farms increase voters' turnout in South Tyrol. Entailed farms are regulated by a law of very old origin by which the farm is to be transmitted from the father to just one heir. The inheritance rule influences the psychology of the farmers, who perceive themselves as selected to accomplish an important task within their social context, and to defend a value system. We conjecture that entailed farms owners are therefore more likely to vote than other citizens, as this is a way they accomplish this task.

The effect of entailed farms on voters' turnout is stronger in local elections compared to national elections and elections of the European Parliament. We believe that this evidence reinforces the conclusion that entailed farms owners vote expressively, and use voting to re-affirm their identity. In fact, re-affirming identity is more promising in local elections, because the defence of the traditional value system goes hand in hand with the survival of the South Tyrolean provincial government as an autonomous government with a lot of powers.

Acknowledgements
We thank Natalie Obergruber for interesting insights into old German inheritance rules.
We thank Giorgio Tagliapini for excellent research assistance.

References

Agostini, D., 1962, Aspetti e Problemi del Maso Chiuso, Annali del Centro di Economia Montana delle Venezie, vol. 2, 1960-61.

Al-Ississ, M., & Atallah, S., 2015. Patronage and ideology in electoral behavior: Evidence from Egypt's first presidential elections. European Journal of Political Economy 37, 241-248.

Amaro-de-Matos, J., & Barros, P., 2004. Social norms and the paradox of elections' turnout. Public Choice 121, 239-255.

Augschöll, A., 2004, La storia della scuola in Alto Adige, Bolzano, alpha beta.

Artés, J., 2014. The rain in Spain: Turnout and partisan voting in Spanish elections. European Journal of Political Economy 34, 126-141.

Bätzing W., 2003. *Die Alpen. Geschichte und Zukunft einer europäischen Kulturladschaft,* München, Beck

Ben Bassat, A., & Dahan, M., 2012. Social identity and voting behavior. Public Choice 151, 193-214.

Bendor, J., Diermeier, D., Siegel, D., & Ting, M., 2011. A Behavioral Theory of Elections. Princeton University Press, Princeton NJ.

Bertocchi, G., & Spagat, M., 2001. The politics of co-optation. Journal of Comparative Economics 29, 591–607.

Bonoldi, A., 2009. *A Farewell to Marginality. Development Paths in the Italian Alpine Provinces since World War II*, in: Andrea Bonoldi, Andrea Leonardi (eds.), *Recovery and Development in the European Periphery (1945-1960),* Bologna, il Mulino / Berlin, Duncker & Humblot, 129-161

Brennan, G., Hamlin, A., 1998. Expressive voting and electoral equilibrium. Public Choice 95, 149–175.

Brennan, G., & Pettit, P., 2004. The Economy of Esteem: An Essay on Civil and Political Society. Oxford University Press, Oxford UK.

Brender, A., 2003. The effect of fiscal performance on local government election results in Israel: 1989-1998. Journal of Public Economics 87, 2187-2205.

Brennan, G., & Hamlin, A., 2000. Democratic Devices and Desires. Cambridge University Press, Cambridge UK.

Brennan, G., & Brooks, M., 2013. Expressive voting. Reksulak, M., Razzolini, L., and Shughart, W.F. II (Eds.), The Elgar Companion to Public Choice. Second edition. Edward Elgar, Cheltenham UK, 111-126.

Cole, J.W. and Wolf, E.R., 1974, The Hidden Frontier: Ecology and Ethnicity in an Alpine valley, Academic Press, New York and London

Downs, A., 1957. An Economic Theory of Democracy. Harper and Row, New York NY.

Elinder, M., Jordahl, H., & Poutvaara, P., 2015. Promises, policies and pocketbook voting. European Economic Review 75, 177–194.

Fiorina, M.P., 1976. The voting decision: instrumental and expressive aspects. Journal of Politics 38, 390–413.

Frey, B. S., 1971. Why do high-income people participate more in politics? Public Choice 11, 101-105.

Gennari, E. and G. Messina, 2014. How sticky are local expenditures in Italy? Assessing the relevance of the "flypaper effect" through municipal data, International Tax Public Finance, 21: 324-344

Gerber, A. S., Green, D., & Larimer, C., 2008. Social pressure and voter turnout: Evidence from a large-scale field experiment. American Political Science Review 102, 33-48.

Geys, B., 2006. 'Rational' theories of voter turnout: A review. Political Studies Review 4, 16 -35.

Glaeser, E. L., Ponzetto, G., & Shleifer, A., 2006. Why does democracy need education? Journal of Economic Growth 12, 77-99.

Guttman, J.M., Hilger, N., & Shachmurove, Y., 1994. Voting as investment vs. voting as consumption: new evidence. Kyklos 47, 197–207.

Hamlin, A., & Jennings, C., 2011. Expressive political behaviour: Foundations, scope and implications. British Journal of Political Science 41, 645 – 670.

Harder, J., & Krosnick, J., 2008. Why do people vote? A psychological analysis of the causes of voter turnout. Journal of Social Issues 64, 525-549.

Hillman, A.L., 2009. Public Finance and Public Policy: Responsibilities and Limitations of Government (2nd Edition). Cambridge University Press, New York NY.

Hillman, A.L., 2010. Expressive behavior in economics and politics. European Journal of Political Economy 26, 403-418.

Hillman, A.L., Metsuyanim, K., & Potrafke, N., 2015. Democracy with group identity. European Journal of Political Economy, forthcoming.

Inglehart, R., 2000. Culture and democracy. In Harrison, L.E., and Huntington, S.P. (Eds.), Culture Matters. Basic Books, New York NY, pp. 80-97.

Kauder, B., & Potrafke, N., 2015. Just hire your spouse! Evidence from a political scandal in Bavaria. European Journal of Political Economy 38, 42-54.

Kramer, G.H., 1971. Short-term fluctuations in U.S. voting behavior. American Political Science Review 68, 131-143.

Leonardi, A., 1996. L'economia di una regione alpine. Le trasformazioni economiche degli ultimi due secoli nell'area trentino-tirolese. Itas, Trento.

Leonardi A., ed., 2009, , *La Regione Trentino-Alto Adige/Südtirol nel XX secolo. Tomo 2: Economia*, Trento, Fondazione Museo storico del Trentino

Lewis-Beck, M. S., & Stegmaier, M., 2013. The VP-function revisited: A survey of the literature on vote and popularity functions after over 40 years. Public Choice 157, 367–385.

Martins, R., & Veiga, F., 2013. Economic performance and turnout at national and local elections. Public Choice 157, 429-448.

Mori E. and Hintner, W., 2009 and 2013, Der Geschlossene Hof: Geschichtliche Entwicklung und geltende Bestimmungen, Fondazione UPAD, Bolzano-Bozen

Meya, J., Poutvaara, P. & Schwager, R., 2015. Pocketbook voting and social preferences in referenda. CESifo working paper no. 5267, Munich.

Nannestad, P., Paldam, M., 1997. The grievance asymmetry revisited: A micro study of economic voting in Denmark, 1986–1992. European Journal of Political Economy 13, 81-99.

Pallaver, G., 2008. *South Tyrol's Consociational Democracy: Between Political Claim and Social Reality*, in: Jens Woelk, Francesco Palermo, Joseph Marko (eds.), *Tolerance through Law. Self Governance and Group Rights in South Tyrol* (European Academy Bozen/Bolzano), Leiden-Boston, Martinus Nijhoff Publishers, 303-327

Peterlini, O., 2013. Foundations and Institutions of South-Tyrol's Autonomy in Italy, in: Yash Ghai, Sophia Woodman (eds.), Practising Self-Government: a comparative study of autonomous regions, Cambridge, Cambridge University Press, 118-162

Poggeschi, G., 2008., *South Tyrol's Special Status in Private Law: the Entailed Farm and the* 'Grundbuch' *Systems*, in: Jens Woelk, Francesco Palermo, Joseph Marko (eds.), *Tolerance through Law. Self Governance and Group Rights in South Tyrol* (European Academy Bozen/Bolzano), Leiden-Boston, Martinus Nijhoff Publishers, 291-301.

Rolphe, M., 2012. Voter Turnout: A Social Theory of Political Participation. Cambridge University Press, Cambridge UK.

Schram, A., & Van Winden, F., 1991. Why people vote: Free riding and the production and consumption of social pressure. Journal of Economic Psychology 12, 575–620.

Schuessler, A.A., 2000, Expressive Voting, Rationality and Society, 12(1):87-119

Schuler, E., 1992, Il Maso Chiuso: Effetti sulla Geografia di un Territorio, University of Verona, unpublished manuscript

Martin Schennach, M., 2003. *Geschichte des bäuerlichen Besitz- und Erbrechtes in Tirol – ein Überblick, in Hofgeschichten der 2002 und 2003 verliehenen Erbhöfe (Tiroler Erbhöfe Nr. 21)*, Innsbruck, 9-30

Settis, S., 2012, Paesaggi, costituzione e cemento, Einaudi, Torino

Smets, K., & Van Ham, C., 2013. The embarrassment of riches? A meta-analysis of individual-level research on voter turnout. Electoral Studies 32, 344-359.

Steininger, R., 2003. *South Tyrol. A Minority Conflict of the Twentieth Century*,
New Brunswick (U.S.A.) and London (U.K.), Transaction Publishers.

Uhlaner, C.J., 1989. Rational turnout: The neglected role of groups. American Journal of Political Science 33, 390-422.

Vogel, S., Maurer, O., Wytrzens, H. K., & Larcher, M (2007). Perceptions of Mountain Farming in South Tyrol: Cultural Differences in a Border Region. In J. Kabrda, & I. Bicik (Eds.), Man in the Landscape across Frontiers: Landscape and Land Use Change in Central European Border Regions, Conference Proceedings of the IGU/LUCC Central Europe Conference 2007, Slovenia-Austria-Slovakia-Czech Republic, Prague, Charles University, 28 August-4 September 2007, 209-220

Vogel, St., Larcher, M., Maurer, O., Wytrzens, H.K. (2009): Perceptions of Non-Commodity Functions of Mountain Farming in South Tyrol: A Report on Survey Results, in: Peyerl, H. (ed.) , Jahrbuch der Österreichischen Gesellschaft für Agrarökonomie 18, 1, 141-149; Facultas Verlag, Wien

Appendix 1: dataset sources.

name	Definition	Source
Turnout (nat, eur)	european and national elections turnouts	Home Office
turnout (prov, mun)	provincial and municipal turnouts	www.retecivica.bz.it/it/sull-alto-adige/elezioni.asp
Entailed Farms 2009	*geschlossene Höfe* 2009	Mori and Hintner (2009)
Entailed Farms 1991	*geschlossene Höfe* 1991	Schuler (1992)
pop	Population	Astat
>65	% poulation over 65	Astat
surface	Surface	Istat
rain	millimetres of rain (nearest weather station)	www.provincia.bz.it/meteo/temp_prec-day.asp

Appendix 2: summary statistics of explanatory variables.

	Obs	Mean	Std. Dev.	Min	Max
EF2009	116	4.32	2.29	.20	11.97
EF1991	116	4.19	2.43	.04	12.23
surface	116	63.79	57.63	1.66	302.49
rain mm	1498	3.03	5.96	0	68.4
pop	1508	4,132.72	9,802.23	173	103,923
_65	1508	676.40	2,028.69	32	23,445

Tables.

Table 1: Turnout rates in South Tyrolean municipalities, 1998-2010

Elections	Obs	Mean	Std. Dev.	Min	Max
provincial1998	116	87.72	3.33	73.90	94.70
european 1999	116	75.50	5.26	59.32	86.10
municipal 2000	113	84.63	4.00	72.80	91.80
national 2001	116	85.99	3.66	71.72	91.96
referendum 2001	116	55.28	6.62	39.10	72.30
provincial 2003	116	85.95	3.85	73.00	92.30
european 2004	116	66.06	4.93	53.51	76.55
municipal 2005	115	82.77	4.53	66.80	90.70
national 2006	116	88.50	2.06	82.11	92.93
Referendum 2006	116	33.56	7.58	20.20	55.90
provincial 2008	116	84.24	4.37	69.10	91.10
national 2008	116	85.57	2.65	78.20	91.22
european 2009	116	56.54	5.55	44.12	67.68
municipal 2010	111	79.79	5.10	63.80	90.40
avg european	116	70.69	4.21	56.51	80.38
avg national	116	86.69	2.56	78.26	91.31
avg provincial	116	85.97	3.56	73.53	92.27
avg municipal	116	82.41	4.33	68.47	89.97

Table 2: Summary statistics of entailed farms and entailed farms normalised by population

	Obs	Mean	Std. Dev.	Min	Max
entailed farms	116	115.43	80.69	6	396
per capita entailed farms 2009	116	4.32	2.29	0.20	11.97

Table 3: Correlation between entailed farms (2009) and voter turnout

	european 2009	national 2008	provincial 2008	municipal 2010
per capita entailed farms	0.3090**	0.2902**	0.5760**	0.5206**
	0.0007	0.0016	0.0000	0.0000

** stands for significance at 1% confidence level

Table 4: Per capita entailed farms by municipality, 2009

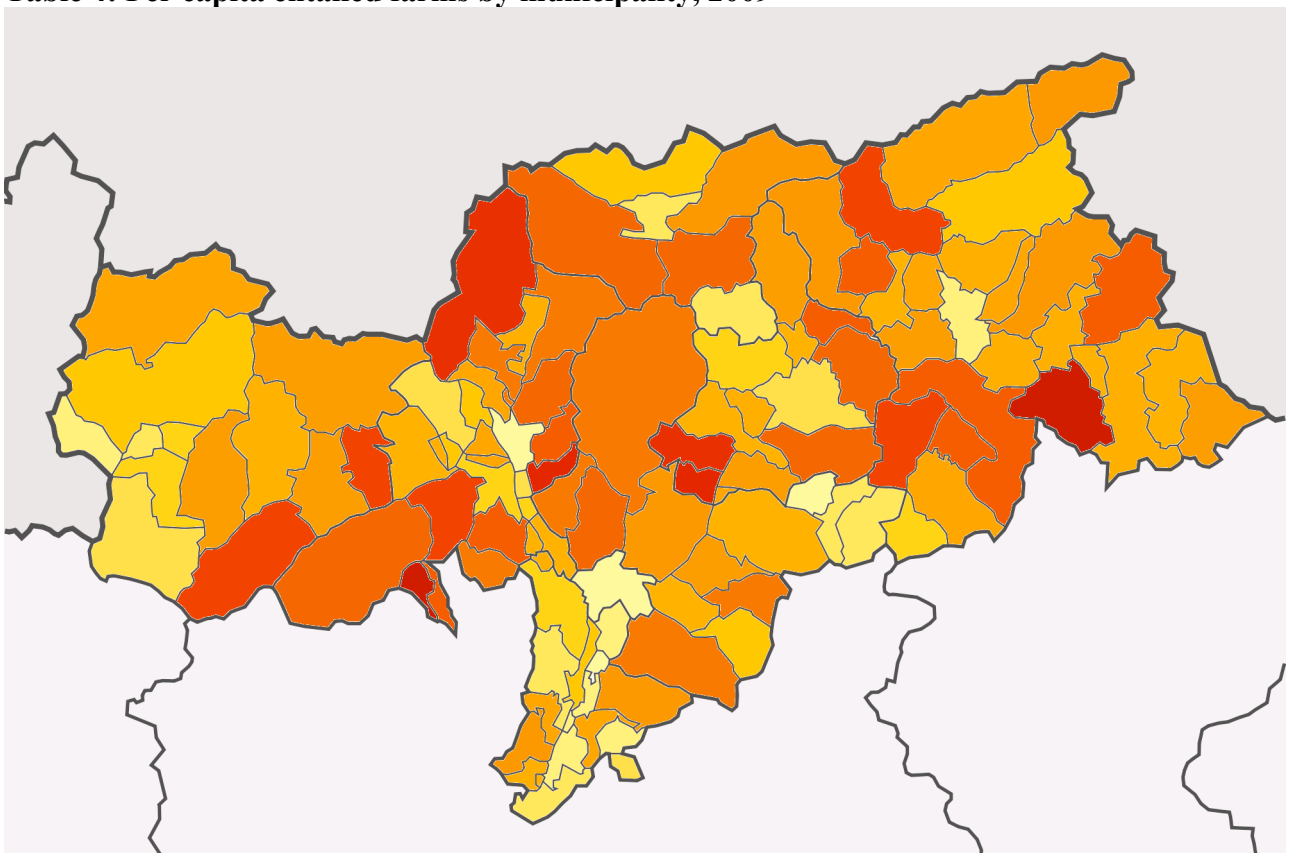

Table 5: Turnout in South Tyrolean municipalities, various elections

	OLS National 2008	OLS National 2008	OLS Provincial 2008	OLS Provincial 2008	OLS European 2009	OLS European 2009	OLS Municipal 2010	OLS Municipal 2010	OLS 1998-2010	OLS 1998-2010	RE 1998-2010
2009EntFarms	0.3286***	0.3879***	1.0938***	1.0998***	0.7564***	1.0527***	1.1498***	0,9534***			
	(0.1075)	(0.1360)	(0.1895)	(0.1919)	(0.2387)	(0.2807)	(0.2075)	0,2303			
1991EntFarms									0.4752***	0.5904***	0.6112***
									(0.1428)	(0.1579)	(0.1544)
surface		-0.01153*		-0.0076		-0.02828***		-0,0058		-0.0195***	-0.0208***
		(0.0060)		0.0061		(0,0092)		0,0079		(0.0064)	(0.0063)
rain										-0.1835***	-0.1969***
										(0.0418)	(0.0404)
pop		0.0001		0,0007		0.0006		-0,0005		0.0004*	0.0007***
		(0,0002)		0,0005		(0.0005)		0,0004		(0.0002)	(0.0002)
popover65		-0.0006		-0,0034		-0.0025		0,0016		-0.0021**	-0.0038**
		(0,0011)		0,0021		(0,0022)		0,0017		(0.0010)	(0.0015)
eurdummy										-12.7705***	-12.7063***
										(0.4158)	(0.4053)
refdummy										-40.0932***	-40.0398***
										(0.5241)	(0.5267)
obs	116	116	116	116	116	116	111	111	1499	1489	1489
municipalities	116	116	116	116	116	116	111	111	116	116	116
Rsq	0.080	0.142	0.327	0.390	0.095	0.176	0.275	0.361	0.005	0.82	0.84

Standard errors clustered at municipality level in brackets. *, **, *** stand for statistical significance at 10, 5, 1%