

SUPPLEMENT TO “HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION”

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APPENDIX A

I. *Field Setting*

*A. Plausible Reasons Behind Frederick II's Decision.* I discuss four plausible reasons. First, assigning the Zaehringen imperial fiefs to competing noble dynasties would have made them more powerful and a contender to the throne. The emperor was not a stranger to such challenges, as his family lost the crown to a rival dynasty for 17 years and recovered it only when he became the king. Second, though Frederick II was a German king, his training, lifestyle, and temperament were “most of all Sicilian”—he was interested in “expanding the Sicilian kingdom into Italy rather than the German kingdom southward” (Maehl (1979)). This could be the reason why he allowed these areas to engage in self-governance under his tutelage. Third, the self-governing areas did not have strong dynastic aspirations. From his experience with the free cities of Italy, he learned that this could serve useful to counteract the power of rival nobles and the Pope with whom he had frequent squabbles. Lastly, Frederick II was an imaginative king, who was called *stupor mundi* or the “astonishment of the world.” Historical accounts speak highly of the egalitarian nature of his court, administrative and judicial reforms, and religious tolerance. It could be that self-governance was in his repertoire of reforms and the Zaehringen extinction offered him the opportunity to implement these.

*B. Styles of Historical Self-Governance.* Figures A1–A3 show simplified versions of historical forms of self-governance that were typically in operation in Switzerland. Figure A.1 shows historical self-governance in rural areas like Uri. Figure A.2 shows the structure of governing council in urban areas with historical self-governance like Zurich. Figure A.3 shows governance in feudal areas like Vaud. In these areas, the foreign power was responsible for the appointment and nomination of important positions (in this case, Bern) and local individuals had hardly any say in decision-making. These figures are modified from the Historical Lexicon of Switzerland.

*C. Importance of Self-Governance.* Historical evidence suggests that the emergence of self-governance was a major political change that people cared about and were willing to spend resources to retain this institution. After the great interregnum ended, Rudolf of Habsburg became the German king. He desired tighter control of privileges enjoyed by self-governing areas. His son Albrecht I of Habsburg, who succeeded the throne after Rudolf died in 1291, was keen on taking these privileges away. During this time, some of the self-governing areas forged an eternal alliance (First Federal Charter) that laid the foundation of the Old Swiss Confederacy. Arguably, one of the objectives of this alliance was to defend self-governance.

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[Correction added on 27 September 2024, after first online publication: The copyright line was updated.]

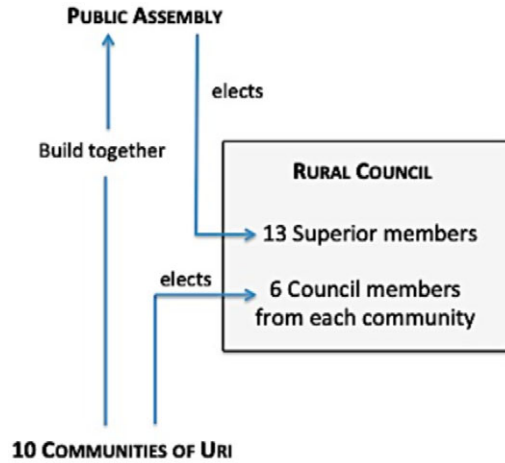


FIGURE A.1.—Historical Self-Governance in Rural Areas.

From 1315–1399, the Habsburg fought three wars to subjugate self-governing areas, but lost all three of them.

- In 1315, the Habsburg lost the first war at Morgarten. After their success, the self-governing areas renewed their alliance through the Treaty of Brunnen.
- In 1386, the Habsburg lost the second war at Sempach. After their success, the self-governing areas renewed their alliance through the Treaty of Sempach.
- In 1388, the Habsburg lost the third and the final war at Naefels.

In these wars, the self-governing areas did not have a professional army but were represented by peasants who fought with halberd. They were also not backed by other noble dynasties or outside powers. These historical events clearly suggest that people valued self-governance; otherwise, they would not go to the extent of forming alliances and fight-

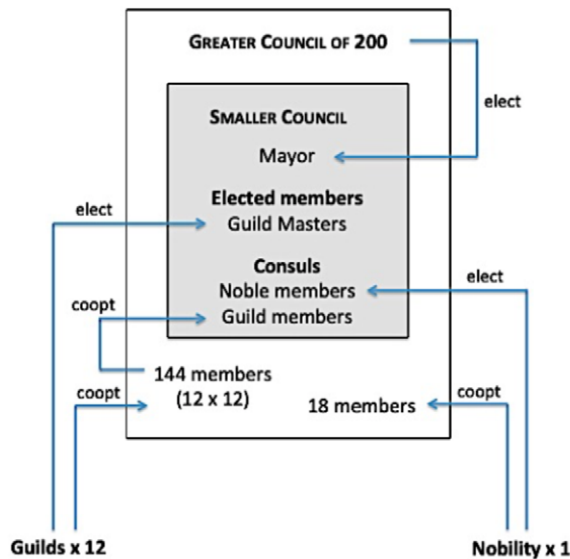


FIGURE A.2.—Historical Self-Governance in Urban Areas.

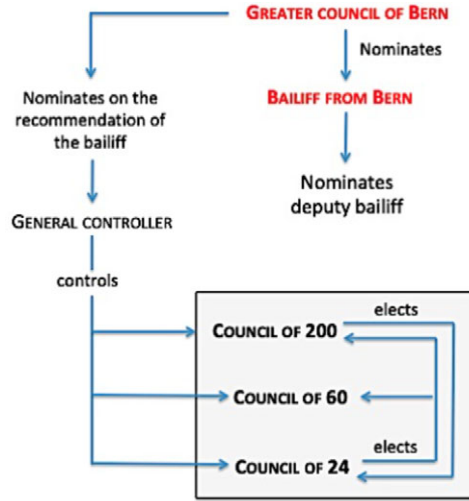


FIGURE A.3.—Historical Self-Governance in Feudal Areas.

ing three costly wars against the Habsburg, a major power of that time. The self-governing areas could have easily avoided these wars by accepting Habsburg suzerainty, much like the other areas surrounding them.

In addition to the treaties and wars listed above, Figure A.4 shows an etching from 1698 depicting self-governance through public assembly (landsgemeinde) in the canton of Zug. It is evident from the figure that the public assembly is well attended, suggesting that people did care about self-governance.<sup>1</sup>



FIGURE A.4.—Landsgemeinde in Zug—early 17th century. Notes: Etching from der Karte Helvetia, Rhaetia, Valesia. Source: HLS, 2021 (Published by Heinrich Ludwig Muos in Zug 1698, Kunstmuseum Basel, Photography: Martin Bühler).

<sup>1</sup>While there is a book on Swiss Confederation from 1550 by Aegidius Tschudi, there are serious doubts on the authenticity of this book, so I refrain from using it.

## II. *Sample Construction*

In the behavioral experiment, the participants were recruited through the largest and most reputed survey agency in Switzerland—Institute for Opinion Research (LINK). The agency maintains a database of 10,000 individuals who are representative of Swiss households. I requested LINK to randomly select from this database a sample of about 1000 individuals who are representative of the three main linguistic groups and the 26 cantons of Switzerland. These individuals turned out to be from 548 municipalities. I invited all of these individuals to take part in an online study.<sup>2</sup> I dropped individuals from the canton of Ticino, which comprises exclusively of Swiss Italians. This is because Ticino is unlikely to be a valid counterfactual. It was not part of the Swiss historical landscape and was integrated only in the 16th century, some 300 years after the Zaehringen extinction. This is possibly because of its location to the south of the Alps, which created geographical barriers to movement. This leaves me with an effective sample of 889 individuals from 518 municipalities in 25 cantons. Of these, 262 individuals from 174 municipalities in 23 cantons participated in the study, implying a response rate of 30% at the individual level and 34% at the municipal level.

Since all individuals, regardless of their participation, agreed to be on the database of LINK, they share common characteristics from being on that platform. This is akin to recruiting individuals from Mechanical Turk or Prolific. In such situations, the selection concern arises from participation by some and not the others in the experiment. I check this in many ways. First, I show that the participation rate is not different across cantons either at the individual ( $p$ -value = 0.37) or at the municipal level ( $p$ -value = 0.58). Second, the share of German and French speakers in the sample is not significantly different from the share of speakers of these languages in the country population (after excluding Swiss Italians). Third, comparing participants and nonparticipants, I show below that there is no selection on key observables both at the individual and municipal level. Fourth, the municipalities in the sample appear to be generally representative of municipalities in Switzerland. These findings suggest that the sample has many appealing characteristics.

*Scope of Selection at the Municipal Level.* Historical self-governance is measured at the municipal level. I test for selection in Table A.1 by comparing the means of important variables across municipalities that are not in the sample (column 1) to those that are in the sample (column 2). Columns 3–5 report the difference in means, estimated using a regression of each variable on an indicator for participation. Column 3 is without any controls, column 4 includes controls, and column 5 canton fixed effects. Regardless of the specification, I find that the differences are small in magnitude and are also statistically insignificant. These findings suggest that municipalities in the sample are comparable to those that are not.

*Scope of Selection at the Individual Level.* I test for selection at the individual level in Table A.2 by comparing individuals that are not in the sample (column 1) to those that are in the sample (column 2). Columns 3–5 reports the difference in means, estimated using a regression of each covariate on an indicator for participation. Column 3 is without any controls, column 4 includes other variables as controls, and column 5 additionally controls for canton fixed effects. As before, there are no differences in these variables by participation. The only exception is education, which is significant at the 10% level.

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<sup>2</sup>According to the Swiss Federal Statistical Office (2014), 84% of all adult German speakers and 82% of all adult French speakers used the internet in the first quarter of 2014.

TABLE A.1  
COMPARISON OF MUNICIPAL LEVEL COVARIATES BY PARTICIPATION IN THE STUDY.

	Mean by Participation (s.d.)		Coefficient on Participation Indicator (s.e.)		
	No (1)	Yes (2)	No Controls (3)	With Controls (4)	With FE (5)
Age index	62.96 (7.38)	61.81 (6.60)	-1.153 (0.639)	-0.809 (0.644)	-0.751 (0.622)
Tertiary Degree	20.20 (7.38)	19.64 (6.43)	-0.556 (0.629)	-0.034 (0.325)	-0.071 (0.305)
Log Income Per Capita	11.20 (0.26)	11.17 (0.20)	-0.028 (0.020)	-0.011 (0.01)	-0.007 (0.008)
Catholic	42.93 (24.16)	42.40 (22.42)	-0.532 (2.141)	-0.507 (0.602)	0.351 (0.428)
Protestant	38.45 (22.80)	37.98 (21.85)	-0.466 (2.062)	-0.451 (0.58)	-0.41 (0.449)
Left Wing	17.22 (7.38)	17.81 (7.75)	0.589 (0.709)	0.093 (0.639)	0.384 (0.412)
Centre	15.32 (10.08)	14.41 (10.76)	-0.91 (0.979)	-0.454 (0.953)	-0.303 (0.408)
Altitude	4.86 (1.62)	4.71 (1.43)	-0.151 (0.139)	-0.122 (0.128)	-0.133 (0.113)
Gini Income	0.34 (0.07)	0.34 (0.06)	-0.005 (0.006)	0.002 (0.004)	0.001 (0.003)
Controls	No	No	No	Yes	Yes
Fixed Effects	No	No	No	No	Yes
Obs.	344	174	518	518	518

*Note:* Columns 1–2 report the mean and the standard deviation (s.d.) of covariates across municipalities of non-participants and participants in the experiment. Column 3 reports the raw difference obtained from the regression of each covariate on an indicator for participation. Column 4 reports the same after controlling for additional variables listed in the table as well as an indicator for Bishop, and column 5 after controlling for canton fixed effects. While controlling for additional variables, I exclude protestant in the regression of Catholic and vice versa because of mechanical correlation between these two variables. Age index is measured as the dependency ratio: share of population in 2010 that is between 0–19 and over 64 per 100 persons divided by the share in the age group of 20–64. Tertiary education is measured as the share of individuals with tertiary education in 2000 (data is available for this year only). Income is measured as log income per capita in 2014. Catholic and Protestant are the share of population in 2000 that is Catholic and Protestant, respectively (data is available for this year only). Left wing and Center capture the share of eligible population that voted for SDP and FDP in 2011 elections. Altitude is measured in meters/100. Gini of income is from 2006. Bishop is excluded because all five Bishop cities are in the sample. Water is excluded because these data are not readily available for all municipalities and were hand coded for municipalities with historical self-governance. Otherwise stated, all data are from the Swiss Federal Statistical Office. Data on altitude are from the Swiss Geographical Information Platform. Data on Gini of income are from the Swiss tax administrative office.

However, the magnitude of the difference is small relative to the mean and standard deviation of education in the full sample (mean 0.39, s.d. 0.49). Using the Bonferroni correction, the joint null that these differences are not significantly different from zero cannot be rejected.

*Comparison to All Municipalities in Switzerland.* Finally, I show in Table A.3 that the municipalities in the sample do not differ from municipalities in Switzerland that are not in the sample. The differences are small in magnitude and are also mostly statistically significant. The only exceptions are Age index and share of protestants, where the differences though small in magnitude are statistically significant at the 5% and 10% levels. However, using the Bonferroni correction, the joint null that these differences are not significantly different from zero cannot be rejected. These results suggest that municipal-

TABLE A.2  
COMPARISON OF INDIVIDUAL LEVEL COVARIATES BY PARTICIPATION IN THE STUDY.

	Mean by Participation (s.d.)		Coefficient on Participation Indicator (s.e.)		
	No (1)	Yes (2)	No Controls (3)	With Controls (4)	With FE (5)
Age	42.793 (15.158)	43.905 (13.500)	1.112 (1.069)	0.664 (1.065)	1.016 (1.105)
Education	0.367 (0.482)	0.450 (0.498)	0.084 (0.037)	0.064 (0.039)	0.067 (0.038)
Male	0.493 (0.500)	0.538 (0.499)	0.045 (0.042)	0.035 (0.041)	0.033 (0.042)
HH Income	11.582 (0.548)	11.602 (0.532)	0.020 (0.038)	0.014 (0.037)	0.014 (0.038)
Catholic	0.365 (0.482)	0.321 (0.468)	-0.045 (0.035)	-0.032 (0.027)	-0.036 (0.027)
Protestant	0.349 (0.477)	0.363 (0.482)	0.013 (0.033)	-0.011 (0.026)	-0.021 (0.026)
Left Wing	0.313 (0.464)	0.332 (0.472)	0.019 (0.038)	0.028 (0.033)	0.024 (0.034)
Center	0.392 (0.489)	0.431 (0.496)	0.039 (0.034)	0.052 (0.030)	0.048 (0.031)
Controls	No	No	No	Yes	Yes
Fixed Effects	No	No	No	No	Yes
Observations	627	262	889	889	889

*Note:* Columns 1–2 report the mean and the standard deviation (s.d.) of covariates across nonparticipants and participants in the experiment. Columns 3–5 report the difference obtained from the OLS regression of each covariate on an indicator for participation, whereby standard errors are clustered on the municipality. Column 3 reports the raw difference without any controls, column 4 after including the remaining variables, altitude, Bishop, and Gini of income as controls, and column 5 after including canton fixed effects. As before, while controlling for the remaining variables, I exclude protestant in the regression of Catholic and vice versa because of mechanical correlation between these two variables. The definition of these variables is in Table 1 of the main paper.

ities in the sample are comparable to Swiss municipalities that are not along a number of important dimensions.

### III. Behavioral Experiment

Table A.4 and Figure A.5 show the behavior and distribution of behavioral types.

Note that unclassifiable does not imply contribution pattern which is all over the place. It implies difficulty in sorting into clearly predefined types in the existing literature. Below, I list common contribution patterns observed among 29 unclassifiable type and plot these in Figure A.6: (i) 10 individuals have Spearman  $\rho$  of  $-1$ . These individuals have a preference over public goods provision: if others defect they cooperate, but if others cooperate, they defect (Croson (2007)). Since in a public goods game, social surplus is maximized if both players contribute their full endowment, such types lead to under provision of public goods; (ii) 7 individuals are weak free riders (average Spearman  $\rho$ , 0.06). Their contribution is mostly below 20 CHF regardless of other person's contribution; (iii) 4 individuals are weak conditional cooperators (average Spearman  $\rho$ , 0.56); (iv) 4 individuals are weak flat contributors (average Spearman  $\rho$ , 0.09); (v) 1 individual is a weak altruist; and (vi) 3 individuals have noisy contribution patterns (average Spearman  $\rho$ , 0.09). Data on prosocial behaviors confirms that most unclassifiable types have free riding tendency. The likelihood of using public transport is 43% among free riders, 38%



TABLE A.3  
COMPARISON OF MUNICIPAL LEVEL COVARIATES BY INCLUSION IN THE SAMPLE.

	Coefficient on Sample Indicator
Age Index	-1.223 (0.560)
Tertiary Degree	-0.144 (0.303)
Log Income Per Capita	-0.013 (0.008)
Catholic	0.510 (1.667)
Protestant	-2.819 (1.612)
Left Wing	0.711 (0.563)
Center	-0.344 (0.845)
Altitude	-0.125 (0.109)
Gini income	-0.000 (0.003)

Note: Column 1 reports the difference obtained from the regression of each covariate on an indicator for being in the sample, after controlling for additional variables listed in the table as well as an indicator for Bishop. For the definition of variables, see Table A.1.

among unclassifiable, and 60% among conditional cooperators. Similarly, the likelihood of consuming sustainable food items is 18% among free riders, 17% among unclassifiable,

TABLE A.4  
FREQUENCY OF TYPES AND THEIR PROPENSITY TO COOPERATE CONDITIONALLY.

	Obs.	Share	Average Spearman	Historical Self-Governance		Difference (5)-(4)	
						Controls	
				No	Yes	No	Yes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Cond. Cooperator	178	0.68	0.97 (0.05)	0.50 (0.50)	0.83 (0.38)	0.34 (0.05)	0.34 (0.06)
Free Rider	28	0.11	0.12 (0.26)	0.15 (0.36)	0.07 (0.26)	-0.08 (0.04)	-0.07 (0.04)
Altruist	10	0.04	0.00 (0.00)	0.06 (0.24)	0.02 (0.14)	-0.04 (0.02)	-0.04 (0.03)
Flat	10	0.04	0.00 (0.00)	0.07 (0.25)	0.01 (0.12)	-0.05 (0.03)	-0.04 (0.02)
Hump-Shaped	7	0.03	-0.06 (0.46)	0.03 (0.18)	0.02 (0.14)	-0.01 (0.02)	-0.01 (0.03)
Unclassifiable	29	0.11	-0.20 (0.74)	0.19 (0.40)	0.04 (0.20)	-0.15 (0.04)	-0.17 (0.06)

Note: The numbers in parenthesis are standard deviation in columns 3-5 and standard errors clustered on the municipality in columns 6-7. The difference in columns 6-7 are obtained from a regression without and with main controls. The control variables include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income.

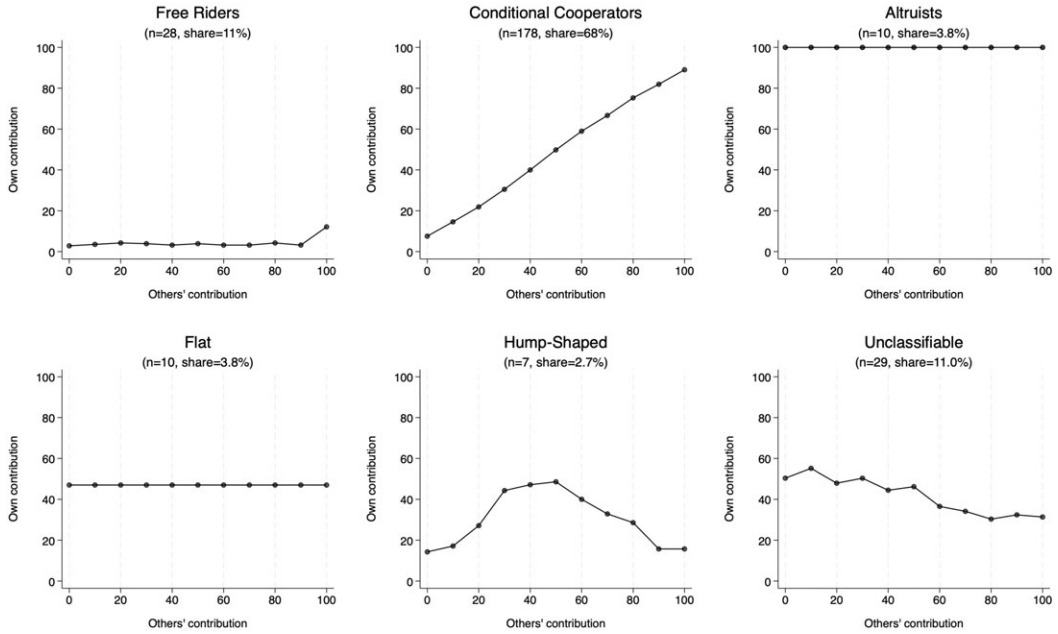


FIGURE A.5.—Player Types from the Conditional Decision of the Public Goods Game.

and 40% among conditional cooperators. These differences are statistically significant ( $p$ -value  $< 0.05$ ).

#### IV. Data and Descriptive Statistics

##### (a) Conditional Cooperation

Figure A.7 shows the raw difference in conditional cooperation across municipalities without and with historical self-governance by sociodemographic characteristics including religion, rural-urban divide, gender, politics, and education.

##### (b) Attitudes Toward Cooperation

Figure A.8 uses data from the the World Values Survey (panel A) and Swiss Household Panel (panel B) to show: (a) the location of municipalities with and without historical self-governance on a map of Switzerland; (b) the raw association between historical self-governance and an indicator of attitudes toward cooperation (median split for the ease of interpretation) on the map, and (c) a bar graph showing the raw difference in attitudes toward cooperation by historical self-governance. It is evident from the map that in municipalities without historical self-governance attitudes toward cooperation are below the median, whereas in municipalities with historical self-governance attitudes toward cooperation are above the median. Results from the bar graph confirm these patterns.

#### V. Empirical Strategy

##### (a) Data on Covariates

Data on most municipal level covariates were obtained from the Swiss Federal Statistical Office (geographical information platform, tax administration, and agriculture). Data



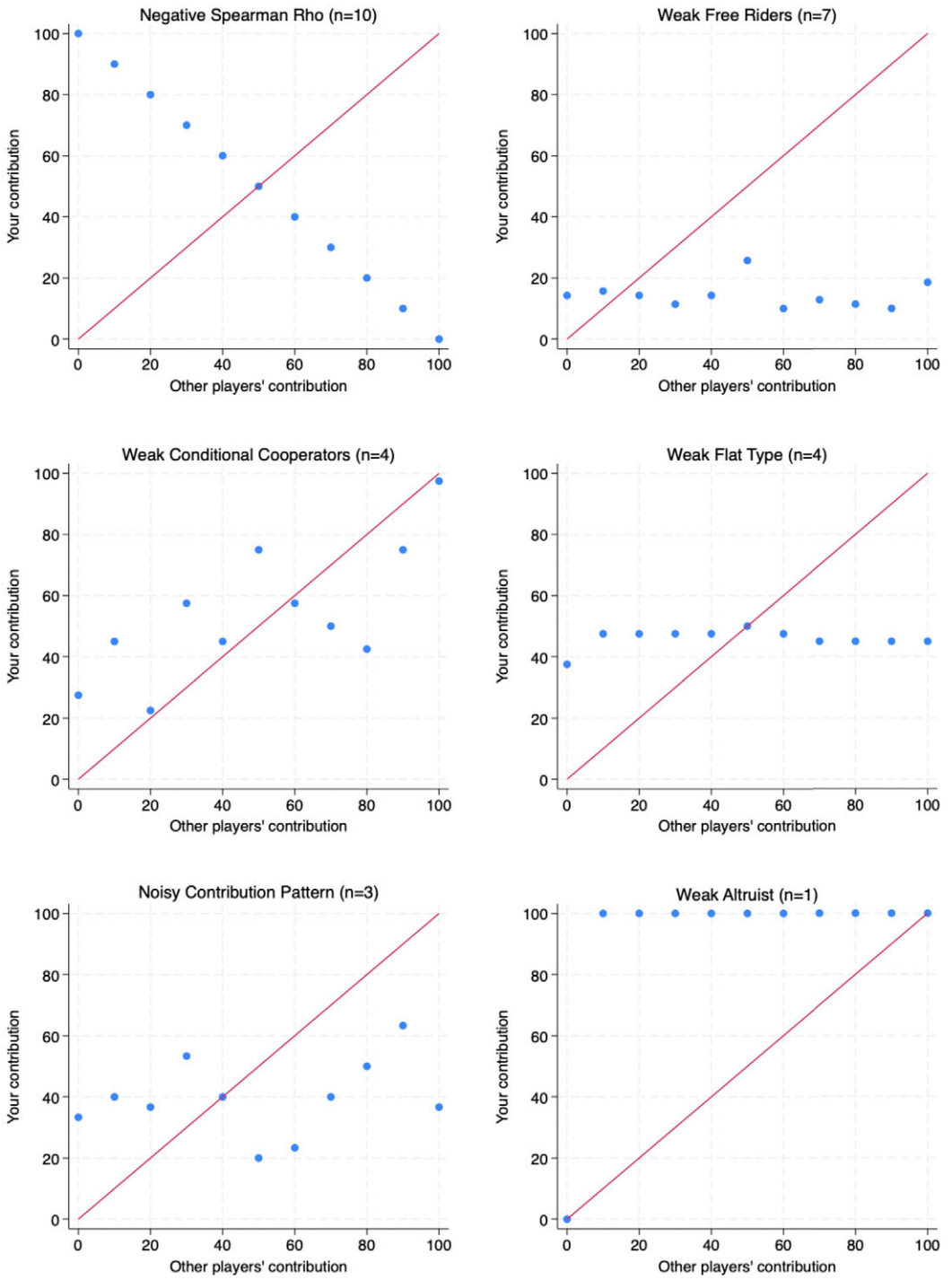
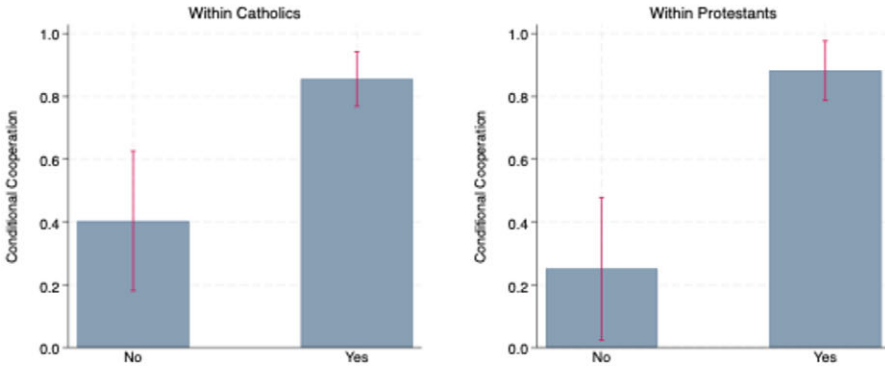
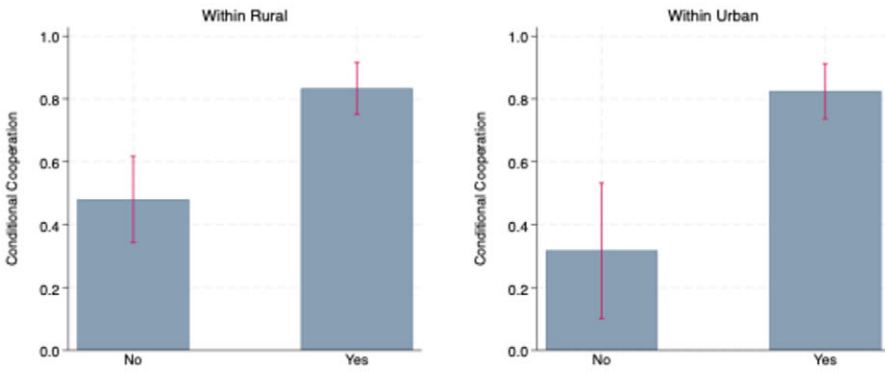


FIGURE A.6.—Unclassifiable Types. *Notes.* The 45-degree line indicates perfect conditional cooperation.

Panel A: Religion



Panel B: Rural Urban Divide



Panel C: Gender

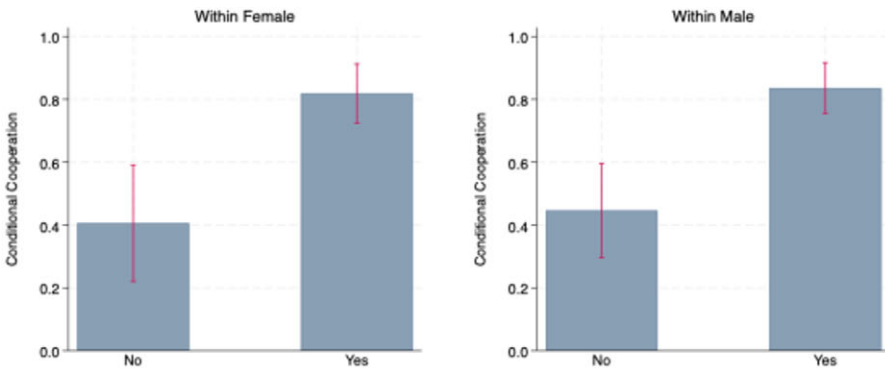


FIGURE A.7.—Conditional Cooperation and Historical Self-Governance by Religion, Rural-Urban Divide, Gender, Politics and Education.

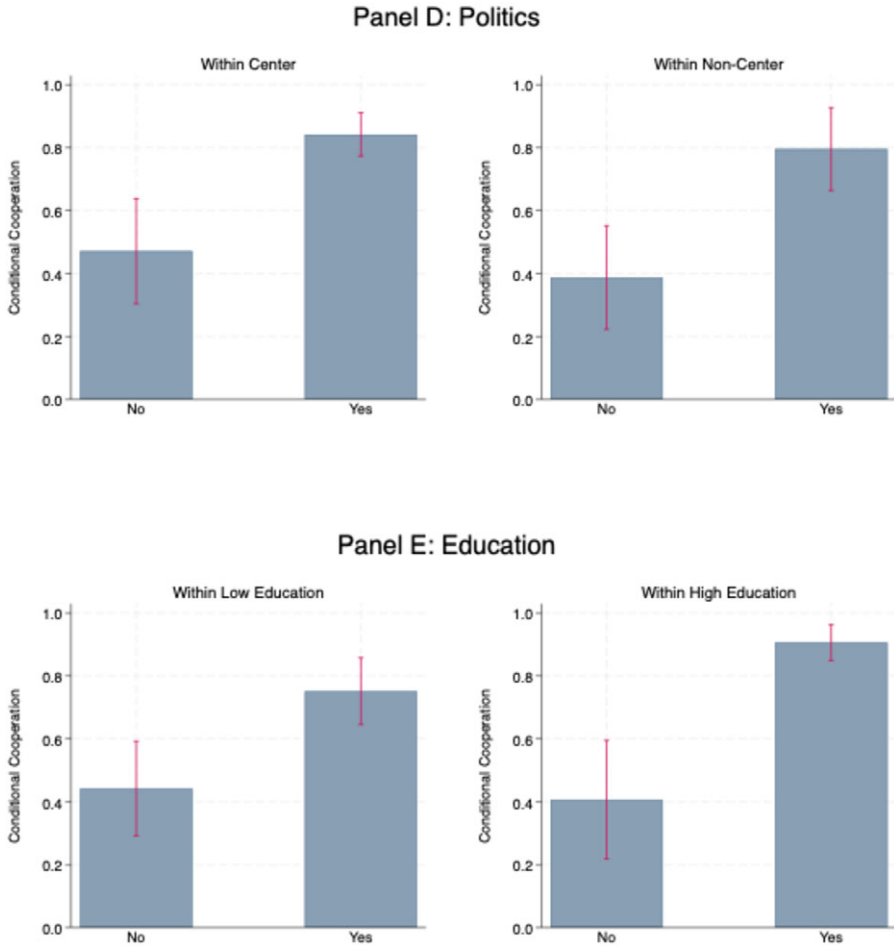
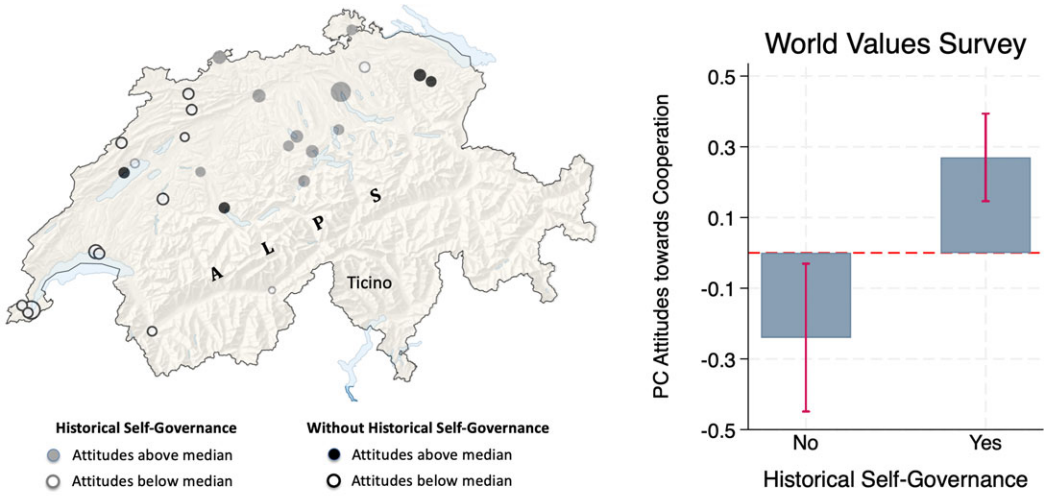
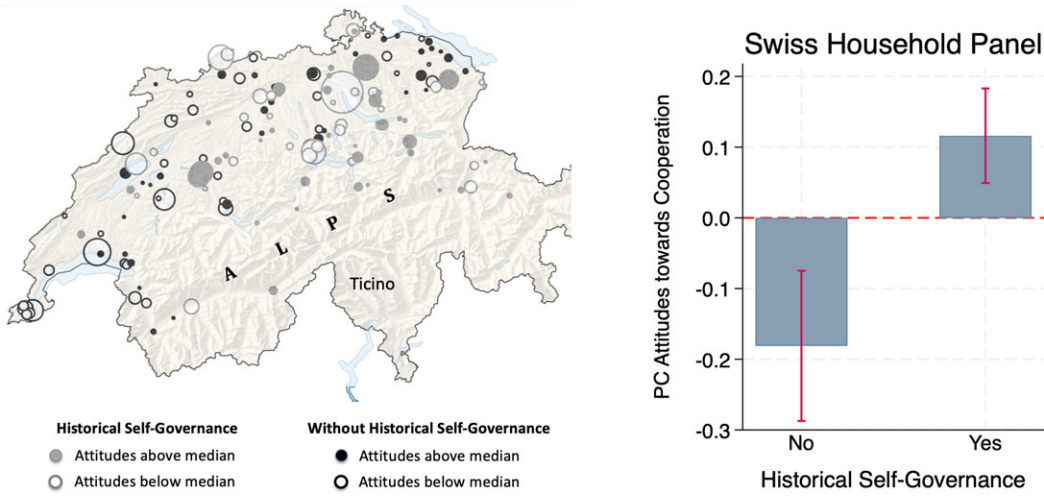


FIGURE A.7.—Continued.

on navigability in the Middle Ages, medieval church, and Roman town were obtained from maps prepared by Marco Zanoli. These maps are based on data from Ammann and Schib (1958) and Sauerländer, Rentsch, Bruckmüller, Hartmann, and Böttcher (2004). Data on population in the Middle Ages (available for 16 municipalities, 11 with and 8 without historical self-governance) were obtained via municipality specific articles in HLS. Data on distance from medieval cantonal capital were computed via Google Maps to account for the importance of terrain in travel time. Data on access to monasteries was obtained first by preparing a list of different orders (Capuchin, Carthusian, Cistercian, Dominican, Franciscan, and Benedictine) and then using Google Maps to identify their location within a radius of 5 km from a municipality. Data on individual-level covariates were obtained from the post-experimental survey. The summary statistics on municipal level variables are in Table A.5 and individual level variables in Table A.6.



Panel A: World Values Survey



Panel B: Swiss Household Panel

FIGURE A.8.—Historical Self-Governance and Attitudes toward Cooperation. *Notes.* In the left figure, each circle represents a municipality. Circles with gray outline are municipalities with historical self-governance, whereas those with black outline are municipalities without historical self-governance. Solid circle (gray or black) means the principal component of attitudes toward cooperation is above the median, whereas hollow circles (gray or black) mean otherwise. The size of the circle represents the frequency of individuals. Ticino is excluded from the study. The right figure shows a bar graph of average principal component of attitudes in municipalities without and with historical self-governance. The capped bars indicate 95% confidence bands. Data on attitudes are from World Values Survey in panel A and Swiss Household Panel in panel B.

*(b) Balance Check: Historical Prosperity*

Figure A.9 shows that municipalities without and with historical self-governance are similar with respect to proxies of historical prosperity like population density and population growth.

TABLE A.5  
SUMMARY STATISTICS: MUNICIPAL LEVEL.

	Panel A: Main Covariates
Altitude	4.710 (1.428)
Navigability	0.466 (0.500)
Church	0.103 (0.305)
Gini Income	0.339 (0.060)
	Panel B: Additional Covariates
Climate	1.345 (0.727)
Soil	1.506 (1.626)
Roman Town	0.092 (0.290)
Distance	21.232 (16.888)
Monastery	0.253 (0.436)
Population	24.13 (22.83)
Observations	174

*Note:* Mean and standard deviation (parentheses) of main and additional variables. Population data is for the Middle Ages and is available for 19 municipalities only. Population is divided by 100. See Table 1, main paper for the definition of these variables.

### (c) Balance Check: Current Prosperity

Figure A.10 shows that municipalities without and with historical self-governance are similar with respect to a number of current proxies of prosperity and education. The differences are mostly small and statistically insignificant, except for the share of tertiary sector units ( $p$ -value = 0.07) and the number of start-ups ( $p$ -value = 0.09), both of which are weakly significantly higher in municipalities with historical self-governance. This may be due to chance, so I use the first principal component of these variables to show that the overall association is not significantly different from zero ( $p$ -value = 0.35). A Bonferroni correction also reveals that the joint null of these differences being not significantly different from zero cannot be rejected.

### (d) Fixed Effects

Figure A.11 shows that the raw difference in conditional cooperation by historical self-governance holds within canton, historical canton, and language.

### (e) Acquisition of Imperial Fiefs by the Zaehringen Family

The Zaehringen family acquired imperial fiefs in Switzerland on two separate occasions from emperors Henry IV and Lothar III. The first set of imperial fiefs were acquired by Berthold II of Zaehringen. This happened in the context of the investiture conflict between Henry IV and Pope Gregory VII. During this conflict, Rudolf of Rheinfelden (Duke of Swabia) and brother-in-law of Henry IV was elected as the antiking.

TABLE A.6  
SUMMARY STATISTICS: INDIVIDUAL LEVEL.

	Panel A: Conditional Cooperation
Spearman $\rho$	0.646 (0.545)
	Panel B: Main Covariates
Age	43.905 (13.500)
Education	0.450 (0.498)
Male	0.538 (0.499)
HH Income	11.602 (0.532)
Catholic	0.321 (0.468)
Protestant	0.363 (0.482)
Left Wing	0.332 (0.472)
Center	0.431 (0.496)
	Panel C: Additional Covariates
Naturalized Citizen	0.202 (0.402)
Swiss Migrant	0.374 (0.485)
Game Comprehension	0.592 (0.492)
Observations	262

*Note:* Mean and standard deviation (parentheses) of main and additional variables. See Table 2, main paper for the definition of these variables.

When Rudolf and his son died, Frederick I of Hohenstaufen and Berthold II of Zaehringen contended for the duchy of Swabia. The Diet in Mainz awarded most of the duchy to Frederick, but offered Berthold fiefs to the south of the Rhine in 1098, which is in Switzerland today.

The second set of imperial fiefs were acquired by Conrad I of Zaehringen. When William III, the Duke of Burgundy, was assassinated, two of his close relatives—Conrad and Reginald III laid claim to the fiefs of Burgundy. However, the Burgundian nobles supported Reginald and appointed him as the count of Burgundy. When Reginald attempted independence of Burgundy from the Holy Roman Empire, it led to a conflict with Emperor Lothar III. Reginald lost and had to forfeit a part of Burgundy to the east of the Jura to Lothar III, who made Conrad a legitimate heir of these lands in 1127.

In both the cases, the Zaehringen family laid claim to an entire section of territories of their relatives but acquired only a part thereof, which was not of their choosing. It seems that geographical boundaries played a role. In the Duchy of Swabia, the territories happened to be to the south of Rhine, whereas in Burgundy, to the east of Jura mountains. Both the territories were on the Swiss plateau, where the territories of other noble dynasties were also located (see Figure 1, main paper).

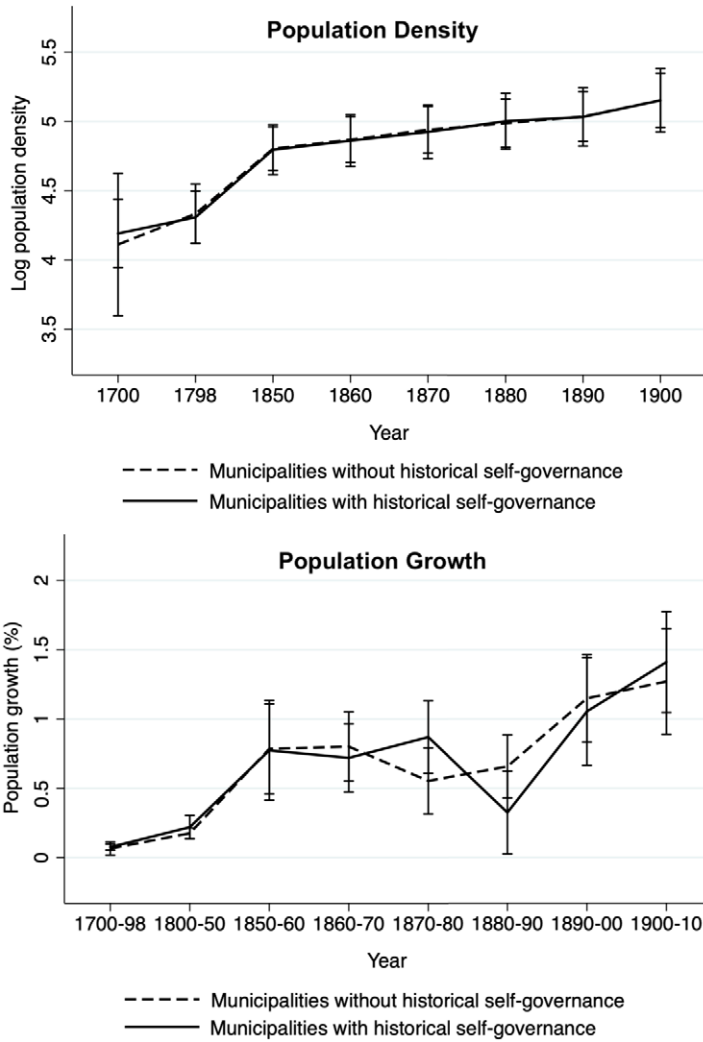


FIGURE A.9.—Historical Self-Governance, Population Density, and Population Growth. *Notes.* The figure tracks population density and population growth across municipalities over time, from ca. 1600–1900. The capped bars indicate 95% confidence intervals. Data are from municipality specific articles in the Historical Lexicon of Switzerland and from 1850 onwards from the Swiss Federal Office for Statistics.



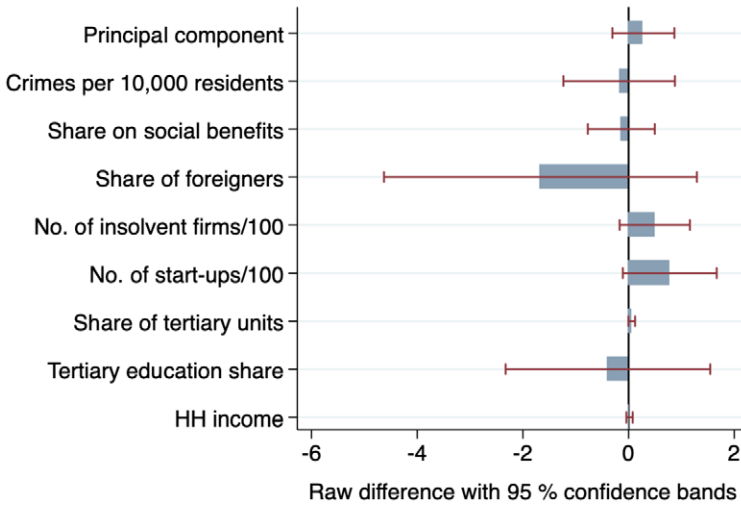


FIGURE A.10.—Historical Self-Governance and Current Proxies of Prosperity and Education. *Notes.* The figure plots the coefficient from a regression of each variable on the y-axis on an indicator for historical self-governance. The capped bars indicate 95% confidence interval. Household income is for the year 2000 and is measured in logs. Tertiary education share is from 2000 (more recent data is not available). Share of tertiary units is from 2011. It is measured as the number of work units that are in the tertiary sector (nonmanufacturing and nonagriculture). It is missing for four municipalities (2 without and 2 with historical self-governance). Number of start-ups is from 2014. Data for this variable was missing for 22 municipalities (14 without and 8 with historical self-governance). I code these as zero under the assumption that there were no start-ups. However, results remain unchanged when these municipalities are dropped. Number of insolvent firms is from 2014. This data is not available for 23 municipalities (16 without and 7 with historical self-governance). I code these as zero under the assumption that there were no firm closures in these municipalities. It is not the case that these municipalities do not have firms. As before, results remain unchanged when these municipalities are dropped. Share of foreigners, share of working population on social benefits, and crime per 1000 residents are from 2010. Data are at the municipal level and were obtained from the Swiss Federal Office for Statistics.

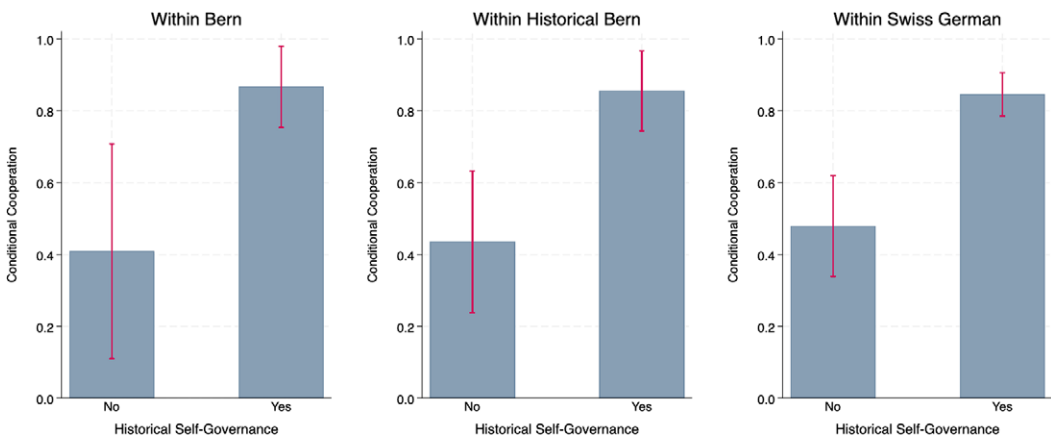


FIGURE A.11.—Conditional Cooperation and Historical Self-Governance within Canton, Historical Canton, and Linguistic Group. *Notes.* The capped bars indicate 95% confidence bands.



VI. *Main Results**(a) Main Results With Coefficients on Control Variables*

TABLE A.8  
OLS AND IV ESTIMATES: COEFFICIENTS ON CONTROL VARIABLES.

	Dependent Variable: Conditional Cooperation	
	OLS Estimates (1)	IV Estimates (2)
Experience	0.439 (0.069)	0.521 (0.170)
Age	0.001 (0.002)	0.002 (0.002)
Education	0.067 (0.064)	0.058 (0.065)
Male	0.009 (0.068)	0.011 (0.067)
HH Income	0.037 (0.066)	0.041 (0.063)
Catholic	-0.010 (0.081)	-0.016 (0.081)
Protestant	-0.081 (0.086)	-0.090 (0.088)
Left Wing	0.026 (0.088)	0.029 (0.088)
Center	-0.082 (0.085)	-0.085 (0.084)
Altitude	-0.043 (0.034)	-0.045 (0.033)
Navigability	-0.031 (0.065)	-0.032 (0.063)
Church	-0.011 (0.075)	-0.031 (0.082)
Gini income	-1.632 (0.658)	-1.694 (0.644)
Observations	262	262

*Note:* Columns 1–2 report OLS and IV estimates with standard errors in parentheses clustered on the municipality.

(b) *Reduced-Form Estimates (ITT)*

TABLE A.9  
REDUCED-FORM ESTIMATES.

	Conditional Cooperation (1)	World Values Survey (2)	Swiss Household Panel (3)
Zaehringen Imperial Fief	0.197 (0.081)	0.360 (0.171)	0.192 (0.092)
$R^2$	0.06	0.08	0.07
Controls	Yes	Yes	Yes
Observations	262	336	1866

Note: OLS estimates with standard errors clustered on the municipality in parentheses. Controls include altitude, navigability, church, Gini of income, age, education, male, log household income, Catholic, Protestant, left wing, center.

(c) *Dropping One Type at a Time*

Figure A.12 shows the raw difference in conditional cooperation by historical self-governance holds when I drop one type at a time except for conditional cooperators.

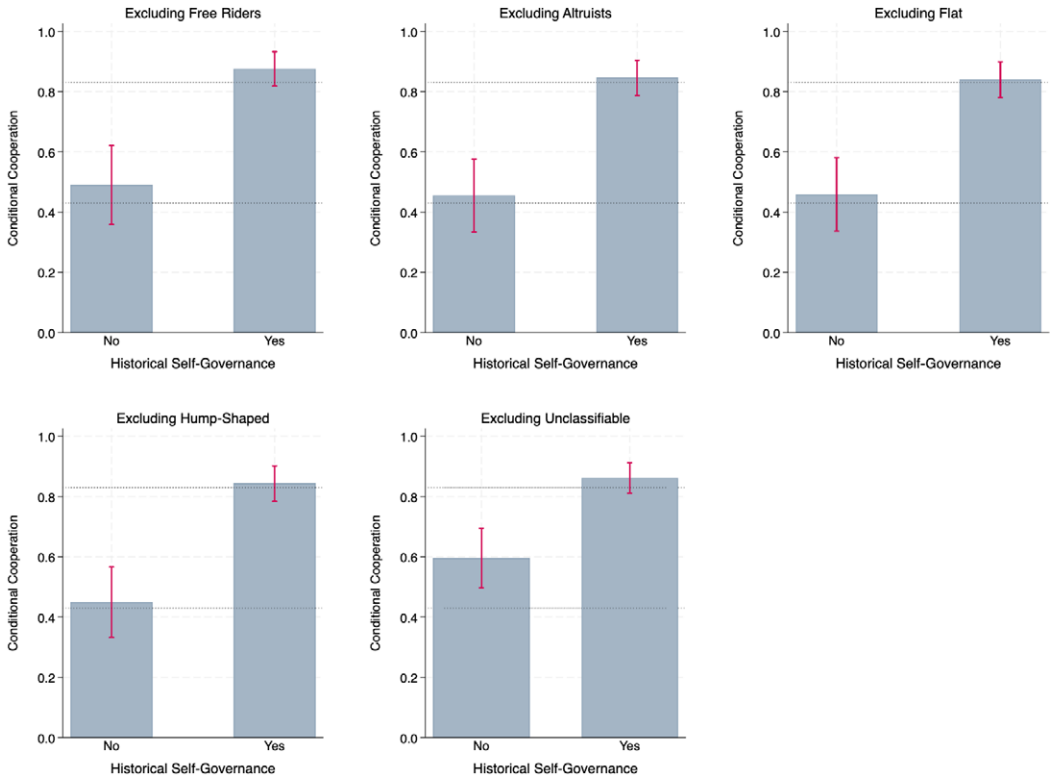


FIGURE A.12.—Historical Self-Governance and Conditional Cooperation Excluding Each Type at a Time. Notes. The dotted lines indicate averages in the full sample. The capped bars indicate 95% confidence bands.

TABLE A.10

HISTORICAL SELF-GOVERNANCE AND CONDITIONAL COOPERATION: DROPPING EACH TYPES AT A TIME.

	Dependent Variable: Conditional Cooperation Excluding at a Time				
	Free Riders (1)	Altruist (2)	Flat (3)	Hump-Shaped (4)	Unclassifiable (5)
Experience	0.434 (0.079)	0.440 (0.074)	0.425 (0.073)	0.427 (0.071)	0.261 (0.061)
Controls	Yes	Yes	Yes	Yes	Yes
Observations	234	252	252	255	233

*Note:* OLS estimates with standard errors clustered on the municipality. Controls include controls age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income.

Table A.10 shows that the result is robust to including control variables. Though the coefficient declines in magnitude to 0.26 when unclassifiable types are dropped, it remains economically large and statistically significant at the 1% level. This drop is expected because the average Spearman  $\rho$  for unclassifiable types is negative (see Table A.4) and the frequency of these types is significantly larger in municipalities without historical self-governance.

#### (d) Robustness Checks

*Dropping One Canton at a Time.* Table A.11 shows that the OLS and IV estimates are robust in magnitude and significance to dropping one canton at a time.

*Alternative Standard Errors.* Table A.12 reports results using alternative standard errors.

*Additional Controls.* Table A.13 reports the results. In column 1, I introduce additional individuals level controls: game comprehension, naturalized citizen, and Swiss migrant. These data are available only for the experimental sample. In columns 2–4, I introduce additional municipal level controls: climate, soil, and Roman town. Columns 1–2 report the results using the experimental sample and columns 3–4 using the WVS and SHP samples.

*Fixed Effects.* Table A.14 reports OLS estimates after controlling for fixed effects using the experimental and SHP sample. I do not conduct this analysis for the WVS sample because it has fewer observations (28 municipalities).

The instrument varies mainly between cantons. The only exception is the historical canton of Bern, which offers large within variation. So, I report results using this subsample in Table A.15. Column 1 reports OLS and IV estimates using the experimental sample. Column 2 reports results using the SHP sample. The WVS sample is excluded because of very few municipalities in this subsample (7 only).

*Within Zaehringen Comparison.* Table A.16 reports results using the experimental sample and the SHP sample. The number of observations in WVS is very small to conduct this exercise (8 municipalities).

TABLE A.11  
OLS AND IV ESTIMATES: DROPPING ONE CANTON AT A TIME.

	Dependent Variable: Conditional Cooperation			
	OLS Estimates		IV Estimates	
	Coefficient (1)	Standard Error (2)	Coefficient (3)	Standard Error (4)
Zurich	0.423	0.076	0.526	0.189
Bern	0.414	0.076	0.555	0.234
Lucerne	0.447	0.071	0.539	0.160
Uri	0.437	0.070	0.514	0.183
Schwyz	0.428	0.070	0.537	0.165
Obwalden	0.442	0.069	0.519	0.170
Glarus	0.439	0.069	0.521	0.170
Zug	0.447	0.070	0.519	0.168
Fribourg	0.435	0.070	0.513	0.169
Solothurn	0.421	0.071	0.444	0.144
Basel city	0.445	0.070	0.561	0.192
Basel land	0.444	0.070	0.545	0.188
Schaffhausen	0.438	0.070	0.520	0.172
Appenzell AR	0.438	0.069	0.511	0.171
St. Gallen	0.443	0.069	0.515	0.166
Grisons	0.439	0.069	0.521	0.170
Aargau	0.461	0.072	0.527	0.167
Thurgau	0.441	0.069	0.527	0.165
Vaud	0.437	0.075	0.531	0.181
Valais	0.456	0.071	0.521	0.170
Neuchatel	0.439	0.069	0.537	0.159
Geneva	0.412	0.071	0.419	0.189
Jura	0.445	0.070	0.550	0.179

*Note:* Columns 1–2 report coefficient and standard error on experience from OLS estimation and columns 3–4 from IV estimation after dropping the canton listed in the row. The standard errors are clustered on the municipality.

*Main Results With Duration.* Table A.17 reports results using the duration of historical self-governance.

*Other Robustness Checks.* Table A.18 shows that the results are robust to dropping municipalities for which precise date of change in historical self-governance was not available (column 1) or reassigning them to without historical self-governance (column 2). The change in WVS is negligible (only 1 municipality), so I exclude it.

*Main Results Including Ticino.* Table A.19 shows that the results hold when I include municipalities from the canton of Ticino. Column 1 uses the actual status of historical self-governance, column 2 assumes that all municipalities in Ticino were without historical self-governance, and column 3 assumes the opposite, that is, all were with historical self-governance.

*Self-Efficacy Beliefs.* Table A.20 uses data from the WVS. When I control for self-efficacy beliefs, the coefficient on experience retains its magnitude and significance. In contrast, the coefficient on self-efficacy beliefs is very small in magnitude and is also statistically insignificant. This analysis was not carried out using experimental and SHP samples because data on self-efficacy beliefs is not available for these samples.

TABLE A.12

HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION: ALTERNATIVE STANDARD ERRORS.

	Conditional Cooperation (1)	World Values Survey (2)	Swiss Household Panel (3)
Panel A: OLS Estimates Dependent Variable: Norms of Cooperation			
Experience	0.439 (0.069) {0.050} {0.048} [0.066]	0.433 (0.131) {0.136} {0.137} [0.136]	0.340 (0.073) {0.076} {0.077} [0.062]
Panel B: IV Second-Stage Dependent Variable: Norms of Cooperation			
Experience	0.521 (0.169) {0.121} {0.114} [0.170]	0.428 (0.158) {0.130} {0.124} [0.133]	0.375 (0.117) {0.123} {0.118} [0.117]
Control Variables	Yes	Yes	Yes
Observations	262	336	1866

*Note:* OLS and IV estimates with standard errors clustered on the municipality in parentheses, municipality and canton in the first row of curly brackets, municipality and historical canton in the second row of curly brackets, and adjusted for spatial clustering with a threshold of 50 Km in square brackets. Controls include altitude, navigability, church, Gini of income, age, education, male, log household income, Catholic, Protestant, left wing, center.

TABLE A.13

HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION: ADDITIONAL INDIVIDUAL AND MUNICIPAL LEVEL CONTROLS.

	Conditional Cooperation (Experiment)		Attitudes Toward Cooperation (WVS)	Attitudes Toward Cooperation (SHP)
	(1)	(2)	(3)	(4)
	Individual	Municipal	Municipal	Municipal
Panel A: OLS Estimates				
Experience	0.440 (0.070)	0.449 (0.070)	0.440 (0.123)	0.359 (0.073)
Panel A: IV Estimates–Second-Stage				
Experience	0.521 (0.169)	0.534 (0.173)	0.424 (0.171)	0.420 (0.128)
Panel A: IV Estimates–First-Stage				
Zaehringen Imperial Fief	0.380 (0.106)	0.390 (0.118)	0.874 (0.195)	0.509 (0.141)
<i>F</i> -statistics	13.73	11.41	19.97	12.97
Control Variables	Yes	Yes	Yes	Yes
Additional Individual Controls	Yes	No	No	No
Additional Municipal Controls	No	Yes	Yes	Yes
Observations	262	262	336	1866

*Note:* OLS and IV estimates with standard errors in parenthesis clustered on the municipality. Control variables include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income. Additional individual controls include naturalized citizen, Swiss migrant, and game comprehension. Additional municipal level controls include climate, soil, and Roman town.



TABLE A.14

HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION: FIXED EFFECTS USING THE FULL SAMPLE.

	Conditional Cooperation (Experiment) (1)	Attitudes Toward Cooperation (SHP) (2)
Experience	0.413 (0.119)	0.192 (0.099)
Control Variables	Yes	Yes
Fixed Effects	Yes	Yes
Observations	262	1866
Municipalities	174	144

*Note:* OLS estimates with standard errors in parenthesis clustered on the municipality. Control variables include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income. Fixed effects include canton, historical canton, and language.

VII. Prosocial Behaviors

(a) Historical Self-Governance and Prosocial Behaviors

Figure A.13 plots the coefficient on experience. It shows that without or with a different configuration of controls, both OLS and IV estimates show a positive and significant effect of historical self-governance on prosocial behaviors.

Figure A.14 plots the coefficient on experience from a regression of each prosocial behavior (listed on the x-axis) on historical self-governance using OLS estimation. It shows that the coefficient on experience is robust to the inclusion of fixed effects. The corresponding exercise is not possible with IV estimation because of little variation in the instrument within the fixed effects.

TABLE A.15

HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION: FIXED EFFECTS USING WITHIN HISTORICAL CANTON OF BERN.

	Conditional Cooperation (Experiment) (1)	Attitudes Toward Cooperation (SHP) (2)
Panel A: OLS Estimates		
Experience	0.365 (0.137)	0.282 (0.122)
Panel A: IV Estimates–Second-Stage		
Experience	0.403 (0.185)	0.263 (0.162)
Panel A: IV Estimates–First-Stage		
Zaehringen Imperial Fief	0.672 (0.145)	0.867 (0.093)
F-statistics	21.45	87.16
Control Variables	Yes	Yes
Observations	71	368
Municipalities	45	35

*Note:* OLS and IV estimates with standard errors in parenthesis clustered on the municipality. Control variables include age, education, male, log household income, center, altitude, navigability, Church, and Gini of income. Fixed effects are for canton and language.

TABLE A.16  
HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION: WITHIN ZAEHRINGEN ANALYSIS.

	Conditional Cooperation (Experiment) (1)	Attitudes Toward Cooperation (SHP) (2)
Panel A: OLS Estimates		
Experience	0.469 (0.137)	0.253 (0.099)
Panel A: IV Estimates–Second-Stage		
Experience	0.467 (0.264)	0.301 (0.099)
Panel A: IV Estimates–First-Stage		
Zaehringen Imperial Fief	0.673 (0.117)	0.955 (0.049)
<i>F</i> -statistics	33.16	375.88
Control Variables	Yes	Yes
Observations	82	654
Municipalities	40	33

*Note:* OLS and IV estimates with standard errors in parenthesis clustered on the municipality. Control variables include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income.

(b) *Historical Self-Governance and Voter-Turnout*

Table A.21 shows the robustness of the result on voter turnout. Column 1 presents results at the cantonal level and shows that the effect of historical self-governance is robust

TABLE A.17  
HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION: OLS AND IV ESTIMATES USING DURATION.

	Experimental Sample (1)	World Values Survey (2)	Swiss Household Panel (3)
Panel A: OLS Estimates			
Dependent Variable: Norms of Cooperation			
Duration	0.095 (0.014)	0.084 (0.026)	0.068 (0.014)
$R^2$	0.19	0.09	0.08
Panel B: IV Second-Stage			
Dependent variable: Norms of Cooperation			
Duration	0.099 (0.032)	0.090 (0.033)	0.077 (0.026)
$R^2$	0.19	0.09	0.08
Panel C: IV First-Stage			
Dependent variable: Duration			
Zaehringen Imperial Fief	1.988 (0.573)	4.019 (0.960)	2.504 (0.754)
<i>F</i> -statistics	12.05	17.51	11.03
Control Variables	Yes	Yes	Yes
Observations	262	336	1866

*Note:* OLS and IV estimates with standard errors in parentheses clustered on the municipality. The dependent variable in column 1 is conditional cooperation. In columns 2–3, it is the principal component of attitudes toward cooperation. Control variables include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income.

TABLE A.18  
 HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION: DROPPING OBSERVATIONS AND  
 ALTERNATIVE ASSIGNMENT WITH MISSING DATES.

	Drop Observations (1)	Reassign Experience (2)
Panel A: Conditional Cooperation		
OLS	0.485 (0.076)	0.429 (0.072)
IV Second-Stage	0.459 (0.167)	0.515 (0.187)
IV First-Stage	0.426 (0.119)	0.382 (0.116)
<i>F</i> -statistics	12.93	10.79
Observations	232	262
Municipalities	145	174
Panel B: Swiss Household Panel		
OLS	0.385 (0.070)	0.378 (0.066)
IV Second-Stage	0.345 (0.120)	0.380 (0.120)
IV First-Stage	0.526 (0.141)	0.504 (0.139)
<i>F</i> -statistics	13.93	13.05
Control Variables	Yes	Yes
Observations	1735	1866
Municipalities	118	144

*Note:* OLS and IV estimates with standard errors in parenthesis clustered on the municipality. Control variables include age, education, male, log household income, center, altitude, navigability, church, and Gini of income.

to controlling for language. Since this analysis is at the cantonal level, it is not possible to include additional controls which are measured at the municipal level. Columns 2–4 present results at the municipal level and show the results hold when I include additional controls in column 2, fixed effects in column 3, and carry out within Zaehringen analysis in column 4.

Table A.22 shows that municipalities with historical self-governance show stronger support for women’s participation in decision-making and easier citizenship for foreigners.

### VIII. Norms, Attitudes, and Prosocial Behaviors

Table A.23 shows there exists a positive and statistically significant association between conditional cooperation and prosocial behaviors. Table A.24 shows a positive and statistically significant association between attitudes toward cooperation and a variety of prosocial behaviors.

TABLE A.19  
HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION INCLUDING TICINO.

	Actual Status of Self-Governance (1)	All Without Self-Governance (2)	All With Self-Governance (3)
Panel A: Conditional Cooperation			
OLS	0.407 (0.066)	0.422 (0.069)	0.373 (0.072)
IV Second-Stage	0.568 (0.191)	0.500 (0.171)	0.563 (0.193)
IV First-Stage	0.349 (0.102)	0.396 (0.104)	0.352 (0.105)
<i>F</i> -statistics	11.66	14.64	11.13
Observations	303	303	303
Municipalities	202	202	202
Panel B: World Values Survey			
OLS	0.397 (0.136)	0.375 (0.129)	0.392 (0.123)
IV Second-Stage	0.381 (0.168)	0.353 (0.167)	0.361 (0.166)
IV First-Stage	0.774 (0.186)	0.835 (0.168)	0.817 (0.186)
<i>F</i> -statistics	17.58	25.02	19.50
Observations	403	403	403
Municipalities	35	35	35
Panel C: Swiss Household Panel			
OLS	0.330 (0.073)	0.311 (0.072)	0.339 (0.073)
IV Second-Stage	0.372 (0.118)	0.354 (0.119)	0.374 (0.118)
IV First-Stage	0.500 (0.134)	0.526 (0.128)	0.497 (0.135)
<i>F</i> -statistics	13.96	16.77	13.59
Observations	1942	1942	1942
Municipalities	166	166	166
Controls	Yes	Yes	Yes

*Note:* OLS and IV estimates with standard errors clustered on the municipality in parentheses. Municipality level controls include altitude, navigability, church, and Gini of income. Individual level controls include age, education, male, log household income, Catholic, Protestant, left wing, center.

## IX. Plausible Channels

### (a) Prosperity and Education

Table A.25 shows that the effect of historical self-governance is robust to controlling for the principal component of current and past proxies of prosperity and education, which themselves enter with mostly small and statistically insignificant coefficients.

### (b) Trade and Urbanization

Panel B in Figure A.7 shows that the raw difference in conditional cooperation is positive and statistically significant in the sample of rural municipalities that were less integrated in trade and commerce. Column 1 of Table A.26 confirms that this result is robust to the inclusion of control variables. Historical self-governance has a positive and statistically significant effect on conditional cooperation. The magnitude of the coefficient on

TABLE A.20  
HISTORICAL SELF-GOVERNANCE AND CONDITIONAL COOPERATION: SELF-EFFICACY BELIEFS.

		Dependent Variable: Attitudes Toward Cooperation:
		Panel A: OLS Estimates
Experience		0.424 (0.130)
Self-Efficacy Belief		-0.036 (0.032)
		Panel B: IV-Second Stage
Experience		0.410 (0.162)
Self-Efficacy Belief		-0.036 (0.031)
		Panel C: IV-First Stage
Zaehringen Imperial Fief		0.835 (0.182)
<i>F</i> -statistics		21.02
Control Variables		Yes
Observations		333

*Note:* OLS and IV estimates with standard errors in parentheses clustered on the municipality. Controls include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income. Data are from the World Values Survey.

TABLE A.21  
HISTORICAL SELF-GOVERNANCE AND VOTER-TURNOUT: ROBUSTNESS CHECKS.

	Cantonal Sample	Municipal Sample		
	Fixed Effects (1)	Additional Controls (2)	Fixed Effects (3)	Within Zaehringen (4)
Panel A: OLS Estimates				
Experience	9.779 (4.452)	2.624 (0.894)	2.064 (0.868)	3.575 (1.312)
Panel A: IV Estimates-Second-Stage				
Experience		6.221 (3.014)	5.247 (3.165)	6.846 (2.520)
Panel A: IV Estimates-First-Stage				
Zaehringen Imperial Fief		0.325 (0.091)	0.296 (0.088)	0.807 (0.136)
<i>F</i> -statistics		12.86	11.43	35.07
Control variables	Yes	Yes	Yes	Yes
Observations	12,542	79,508	79,508	18,605
Clusters	19	174	174	40

*Note:* OLS and IV estimates. Standard errors in parenthesis are clustered on the canton and referendum in column 1 and on the municipality and referendum in columns 2-4. In column 1, control variables include altitude, navigability, log population in 1850, population growth in 1850-1860, student-teacher ratio in primary school in 1888, share of male population in 1850, and indicator for cantons with public assemblies. In columns 2-4, control variables include altitude, navigability, church, Gini of income in 2006, indicator for municipalities with public assemblies, log income per capita in 2010, secondary and tertiary education share in 2000, share of Catholics in 2000, share of center votes in 2011. Additional controls include: Soil, Climate, Roman. Clusters refers to number of cantons in column 1 and number of municipalities in columns 2-4. Data are from the Swiss Federal Office for Statistics.

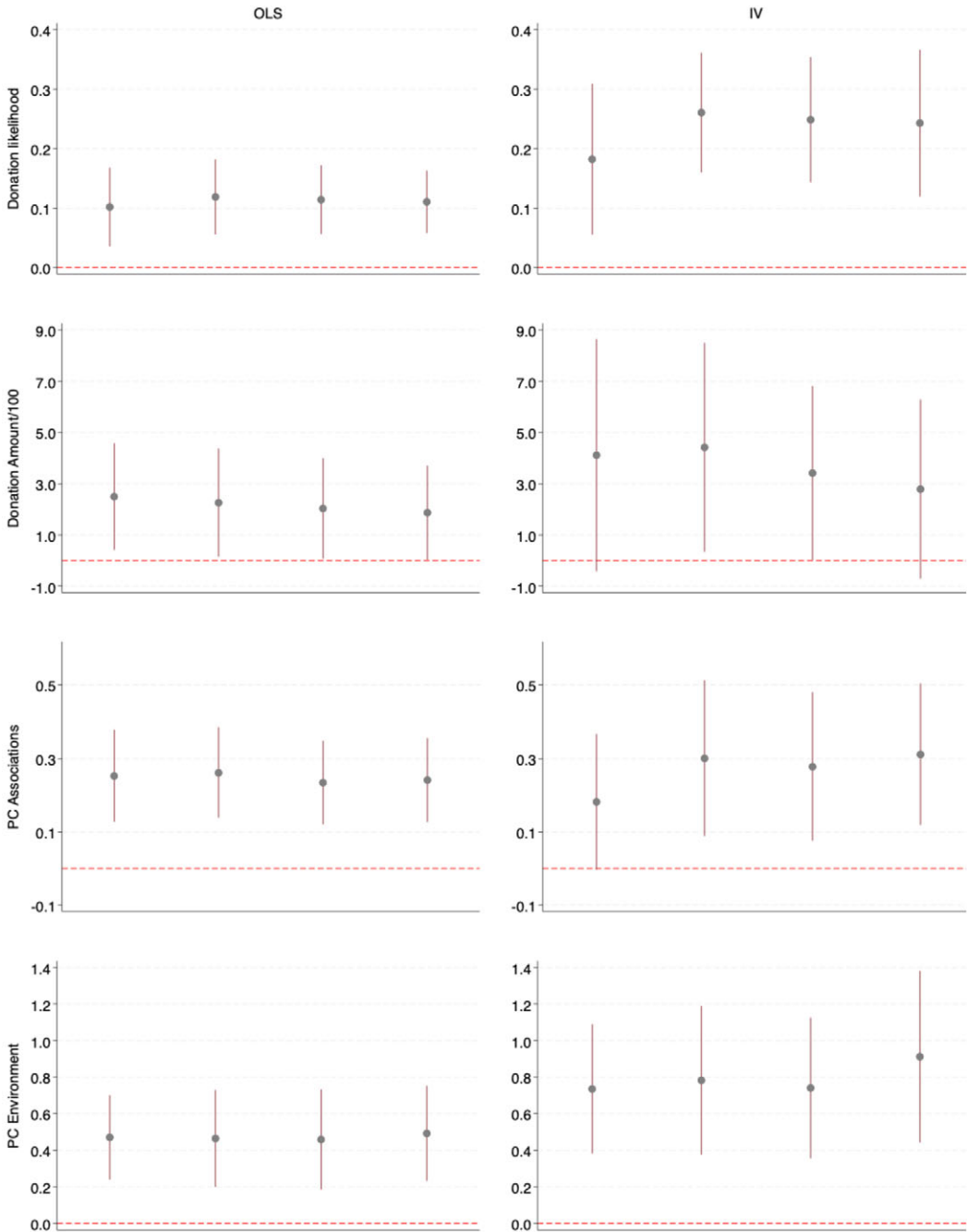


FIGURE A.13.—Historical Self-Governance and Prosocial Behaviors.

experience is similar to that obtained in the full sample. Though the coefficient is smaller than in the sample of urban municipalities included in column 2, the difference is not statistically significant ( $p$ -value = 0.25).

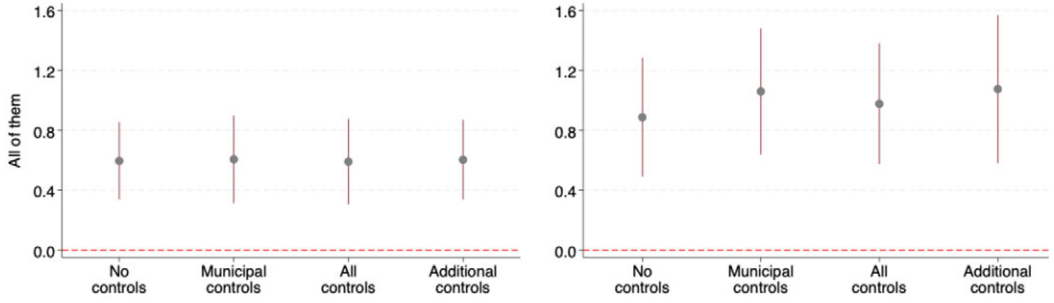


FIGURE A.13.—Continued.

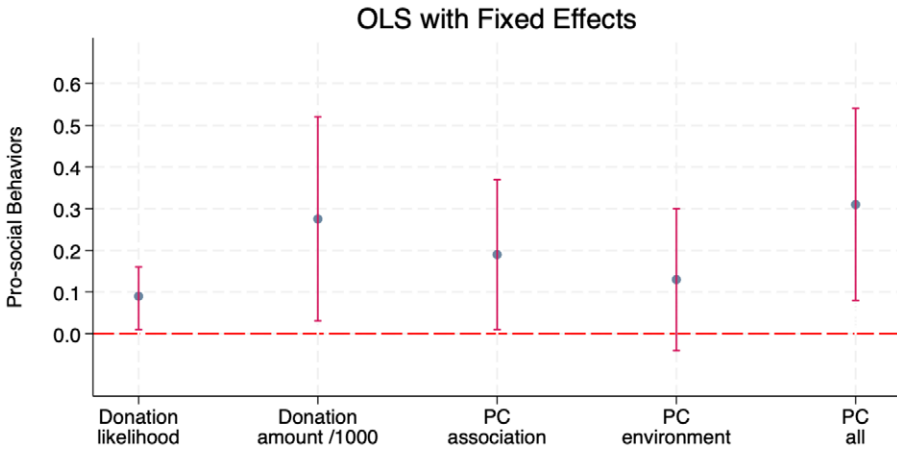


FIGURE A.14.—Historical Self-Governance and Prosocial Behaviors—FE estimates.

TABLE A.22

HISTORICAL SELF-GOVERNANCE AND DECISION-MAKING IN REFERENDUMS.

	Full Sample (1)	Women Only (2)	Foreigners Only (3)
Panel A: OLS Estimates			
Experience	2.178 (0.576)	2.017 (1.180)	2.389 (0.632)
Panel B: IV Estimates—Second Stage			
Experience	8.012 (3.474)	7.742 (3.509)	8.370 (4.385)
Panel C: IV Estimates—First Stage			
Zachringen Imperial Fief	0.294 (0.089)	0.294 (0.090)	0.294 (0.090)
F-statistics	10.86	10.80	10.69
Control Variables	Yes	Yes	Yes
Observations	1215	693	522
Municipalities	174	174	174
Events	7	4	3

Note: OLS and IV estimates with standard errors in parenthesis clustered on the municipality and referendum. Control variables include altitude, navigability, church, indicator for municipality with public assemblies, female share in 2010, share of adults with secondary and tertiary education in 2000, share of Catholics in 2000, log of income per capita in 2010, Gini of income in 2006, and an indicator for Swiss German. Controls variables are from years for which data were available.



TABLE A.23  
CONDITIONAL COOPERATION AND PROSOCIAL BEHAVIORS.

	Public Transport (1)	Sustainable Food (2)	Voter Turnout (3)
Conditional Cooperation	0.135 (0.050)	0.137 (0.042)	1.233 (0.598)
Control Variables	Yes	Yes	Yes
Observations	262	262	79,508
No. of Municipalities	174	174	174

*Note:* OLS estimates with standard errors in parenthesis clustered on the municipality in columns 1–2, and on municipality and referendum topic in column 3. In columns 1–2, data is at the individual level. Control variables include age, education, male, log household income, Catholic, Protestant, center, left, altitude, navigability, church, and Gini of income. In column 3, data are at the municipal level. Control variables include altitude, navigability, church, Gini of income, indicator for municipalities with public assemblies, log income per capita in 2010, secondary and tertiary education share in 2000, share of Catholics in 2000, share of center votes in 2011. Public transport and sustainable food consumption are binary variables, where 1 implies regular use or consumption. Voter turnout is in percentage.

TABLE A.24  
ATTITUDES TOWARD COOPERATION AND PROSOCIAL BEHAVIORS.

	Donations to Charities (1)	Amount of Donation (2)	Membership Associations (3)	Environmental Protection (4)	All Prosocial Behaviors (5)
PC Attitudes	0.040 (0.011)	128.775 (21.782)	0.057 (0.019)	0.143 (0.024)	0.179 (0.029)
Controls	Yes	Yes	Yes	Yes	Yes
Observations	1859	1801	1864	1836	1770

*Note:* OLS estimates with standard errors in parenthesis clustered on the municipality. Control variables include age, education, male, log household income, Catholic, Protestant, center, left, altitude, navigability, church, and Gini of income. PC attitudes is the principal component of attitudes toward cooperation, such as cheating on tax declaration, lying in own interest, claiming state benefits not entitled to. The definition of dependent variables is in the footnotes of Table 5, main paper.

TABLE A.25  
HISTORICAL SELF-GOVERNANCE AND CONDITIONAL COOPERATION: CONTROLLING FOR PAST AND CURRENT  
PROXIES OF PROSPERITY AND EDUCATION.

	Dependent Variable: Conditional Cooperation				
	PC Current Prosperity (1)	PC Population Density (2)	PC Population Growth (4)	Monastery Access (3)	All of Them (5)
Experience	0.453 (0.070)	0.446 (0.069)	0.460 (0.070)	0.423 (0.069)	0.437 (0.068)
R <sup>2</sup>	0.19	0.19	0.20	0.19	0.20
Controls	Yes	Yes	Yes	Yes	Yes
Observations	262	262	262	262	262

*Note:* OLS estimates with standard errors clustered on the municipality. Controls include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income. PC current prosperity is the first principal component of current measures of economic prosperity (see Figure A.10 for the list of included variables). PC population density is the principal component of past population density and PC population growth is the principal component of past population growth (see Figure A.9 for the years included). Monastery access is an indicator for access to education in the Middle Ages, which equals 1 if a monastery was located within 5 km distance, otherwise 0.

TABLE A.26

HISTORICAL SELF-GOVERNANCE AND CONDITIONAL COOPERATION: RURAL AND URBAN MUNICIPALITIES.

	Dependent Variable: Conditional Cooperation	
	Rural 1	Urban 2
Experience	0.376 (0.087)	0.545 (0.121)
$R^2$	0.19	0.26
Control Variables	Yes	Yes
Observations	140	122
Municipalities	126	48

*Note:* OLS estimates with standard errors clustered on the municipality. Controls include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income.

*(c) Formation of the Old Swiss Confederacy*

Table A.27 splits the indicator for experience into those that experienced only historical self-governance and those that additionally experienced Old Swiss Confederacy. There is no difference between the two coefficients.

*(d) Historical Migration*

Table A.28 shows the effect of historical self-governance on conditional cooperation after controlling for migration rate from 1800–1900. Column 1 reports result using the full sample. Columns 2–3 report results from samples below and above the median migration rate (34.35%).

*(e) Discussion on Feedback Loop*

*Index of Direct Democracy.* The index of direct democracy was compiled by Stutzer (1999) and Fischer (2009). It rates cantons on the ease of participatory decision-making

TABLE A.27

HISTORICAL SELF-GOVERNANCE AND CONDITIONAL COOPERATION: OLD SWISS CONFEDERACY.

	Dependent Variable: Conditional Cooperation	
	No Controls (1)	Full Controls (2)
Experience Only	0.411 (0.071)	0.420 (0.074)
Experience Plus OSC	0.388 (0.065)	0.468 (0.084)
Control Variables	No	Yes
Observations	262	262

*Note:* OLS estimates with standard errors in parenthesis clustered on the municipality. Control variables include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income. Experience only is an indicator for municipalities that experienced historical self governance but were not directly associated with the Old Swiss Confederacy (OSC). Experience plus OSC is an indicator for municipalities that experienced historical self governance and were also directly associated with the OSC.

TABLE A.28  
HISTORICAL SELF-GOVERNANCE, CONDITIONAL COOPERATION, AND HISTORICAL MIGRATION.

	Dependent Variable: Conditional Cooperation		
	Full Sample (1)	Migration < Median (2)	Migration > Median (3)
Experience	0.423 (0.072)	0.492 (0.100)	0.417 (0.115)
Migration Rate	0.001 (0.001)	0.006 (0.005)	0.001 (0.003)
$R^2$	0.18	0.26	0.23
Controls	Yes	Yes	Yes
Observations	259	130	129

*Note:* OLS estimates with standard errors clustered on the municipality. Controls include controls age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income. Data were not available for two municipalities. Data on migration are computed from the register of Swiss family names with citizenship in a Swiss municipality made available by Historical Lexicon of Switzerland (HLS).

from 1970–2005 on a scale of 1–6, where 1 is the worst and 6 is the best. Figure A.15 shows that the index is around 5 in cantons where many municipalities experienced historical self-governance. However, it is around 3 in cantons where most municipalities were without historical self-governance.

*Frequency of Referendums and Initiatives.* Table A.29 shows municipalities with historical self-governance hold more than twice as many referendums and initiatives in a year to arrive at local decision-making. These results hold whether without or with controls.

*Attitudes Toward Democracy and Support for Democracy.* Table A.30 shows individuals from municipalities with historical self-governance show stronger attitudes and support for democracy. Data on attitudes toward democracy are obtained from the World Values

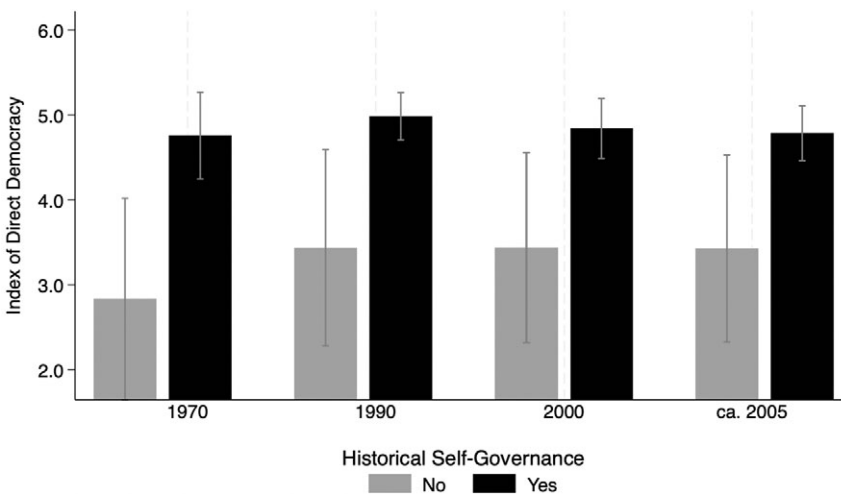


FIGURE A.15.—Historical Self-Governance and Index of Direct Democracy Over Time. *Notes.* The capped bars indicate 95% confidence intervals. Data are from Stutzer (1999) and Fischer (2009).

TABLE A.29  
HISTORICAL SELF-GOVERNANCE AND FREQUENCY OF REFERENDUMS AND INITIATIVES.

	Dependent Variable: Frequency of Referendums and Initiatives				
	Combined			Referendum Only	Initiative Only
	No Controls	Year FE	Full Controls	Full Controls	Full Controls
	(1)	(2)	(3)	(4)	(5)
Experience	1.530 (0.270)	1.645 (0.281)	1.540 (0.409)	2.374 (0.747)	0.712 (0.296)
Year Fixed Effects	No	Yes	Yes	Yes	Yes
Control Variables	No	No	Yes	Yes	Yes
Observations	328	328	328	151	177
Baseline Mean		1.36		1.82	0.90

*Note:* OLS estimates with standard errors clustered on municipalities and cantons in parentheses. The results hold when standard errors are clustered only at the municipal level. Controls variables are at the municipal level from years for which data were available and which are close to the years in which the dependent variable is measured. These include tertiary education share in 2000, log income per capita in 2010 and 2014, Catholic share in 2000, center vote share in 2007 and 2015, center vote share in 2007 and 2015, Gini of income in 2006 and 2010, altitude, navigability, and church. Protestant share is excluded because it is highly correlated with Catholic share ( $r = 0.92$ ). Data on tertiary education and Catholic share are available only for the year 2000. Data on the dependent variable are from Andreas Ladner for 2009 and 2016. Data on control variables are from the Swiss Federal Office for Statistics.

Survey (WVS). In the survey, individuals are asked to rate on a scale of 1–10 whether it is an essential characteristic of democracy that (i) governments tax the rich and subsidize the poor, (ii) religious authorities interpret the laws, (iii) people choose their leaders in free elections, (iv) people receive state aid for unemployment, (v) the army takes over when the government is incompetent, (vi) civil rights protect people’s liberty, (vii) people can change the laws in referendums, (viii) women have the same rights as men, and (ix) democracy in own country. In columns 1–2, I use the first principal component of these nine attitudes toward democracy as the dependent variable.<sup>3</sup> In columns 3–4, I use data on support for democracy from the Swiss Household Panel (SHP), which is on a scale of 1–10, where 1 means no support and 10 means full support.

TABLE A.30  
HISTORICAL SELF-GOVERNANCE, ATTITUDES TOWARD DEMOCRACY, AND SUPPORT FOR DEMOCRACY.

	Dependent Variable is:			
	PC of Attitudes Toward Democracy (WVS)		Support for Democracy (SHP)	
	No Controls	Controls	No Controls	Controls
	(1)	(2)	(3)	(4)
Experience	0.952 (0.184)	0.920 (0.181)	0.445 (0.099)	0.334 (0.084)
Control Variables	No	Yes	No	Yes
Observations	301	300	1903	1865

*Note:* OLS coefficients with standard errors in parentheses clustered at the municipal level. Controls include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income.

<sup>3</sup>The results hold individually for all questions except (ii) and (v), which is not surprising.

## APPENDIX B: EXPERIMENTAL INSTRUCTIONS

*Introduction*

You are taking part in a research by ETH Zurich. This is a research about decision-making by individuals.

The contents will be kept highly confidential and will be only used for scientific purposes. Whatever decisions you take will be ANONYMOUS.

You will take part in THREE studies. Depending on your and other players' decisions in these studies, you can earn up to 175 Swiss Francs. Therefore, please read the instructions carefully.

In the end, we will use a lottery to select 40 participants and pay them the exact amount earned by them in one of the three studies. We will get in touch with the selected participants to transfer the money.

Please take all the decisions without consulting anyone else.

Please, do not use the back and forward button of the browser.

*Basic Instructions*

We will now introduce you to the basic situation in which you have to take a decision. You will confront this situation in all the three studies.

You are a member of a group comprising two players A and B.

**YOU ARE ALWAYS PLAYER A**

Player B is not a computer, but a real person.

You do not know who player B is. Similarly, player B does not know who you are. You are also not known to us.

Each player gets 100 Francs at the start of the study. You have to decide what to do with this money.

You can either keep the Francs in your "private account" or you can invest them in a "common fund." Francs not invested in the common fund are automatically transferred to your private account.

Earnings from the private account: For each Franc you keep in the private account, you get exactly 1 Franc. For example, if you put 50 Francs in your private account, you will earn exactly 50 Francs. Except for you, no one else has access to earnings from your private account.

Earnings from the common fund: For each Franc that you invest in the common fund you get 0.75 Francs and player B also gets 0.75 Francs. Of course, you also get 0.75 Francs for each Franc invested by player B.

Earnings from the common fund = total number of Francs invested in the common fund by you and player B multiplied by 0.75.

Example, if the sum of Francs invested by you and player B in the common fund is 200, you and player B earn  $200 \times 0.75 = 150$  Francs each from the common fund.

Total earnings = earnings from the private account + earnings from the common fund.

*Control Questions*

Now we will ask you to answer three questions to help you understand the instructions better. Please answer the following questions carefully.

*Question 1: out of 100 Francs, Player A and B Invest 0 Francs Each in the Common Fund.*

How much does each player earn from the common fund?

What are the total earnings of player A?

What are the total earnings of player B?

*Question 2: out of 100 Francs, Player A Invests 100 Francs in the Common Fund, and Player B Also Invests 100 Francs.*

How much does each player earn from the common fund?

What are the total earnings of player A?

What are the total earnings of player B?

*Question 3: out of 100 Francs, Player A Invests 0 Francs in the Common Fund, but Player B Invests 100 Francs.*

How much does each player earn from the common fund?

What are the total earnings of player A?

What are the total earnings of player B?

**STUDY 1**

Study 1 contains the decision situation we have just described to you. You will get 100 Francs. You can put them into your private account or you can invest them into a common fund. You will have to take two types of decisions. We will call them Decision I and Decision II.

**Decision I:** You will have to decide how many out of 100 Francs to invest into the common fund. You can ONLY invest in multiples of 10. Example: 0, 10, 20, 30, and so on until 100. You will have to enter the amount in a box like this:

**Decision II:** You will have to indicate the amount of Francs you would like to invest into the common fund for each possible investment by player B. This will become clear to you, if you look at the table on the screen below (please do not fill in the table as yet):

Player B (Anonymous)	Player A (You)	Player B (Anonymous)	Player A (You)
0			
		60	
10			
		70	
20			
		80	
30			
		90	
40			
		100	
50			

You will have to enter your decision into the box next to the investment of player B. For example: How many Francs would you like to invest into the common fund if player B invests zero Francs in the common fund? How many Francs would you like to invest into the common fund if player B invests 10 Francs... and so on until 100 Francs.

You will have to make an entry into each box. Make sure that no box is empty.

After all participants have taken their decisions I and II, we will use a lottery to select one of the two decisions taken by you. This will be matched with the remaining decision of the other player to determine your payoffs in study 1.

**You are now taking part in study 1. It will be conducted only once.**

**Decision I:** Out of 100 Francs, how many would you like to invest into the common fund? Please enter the amount into the box below:

**Decision II:** How many Francs would you like to invest into the common fund for each possible investment by player B? Please choose between the amounts 0, 10, 20, 30, 40, 50, and so on until 100. Make sure that you fill each empty box.

Player B (Anonymous)	Player A (You)	Player B (Anonymous)	Player A (You)
0			
		60	
10			
		70	
20			
		80	
30			
		90	
40			
		100	
50			

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