

HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION

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Does self-governance, a hallmark of democratic societies, foster norms of generalized cooperation? Does this effect persist, and if so, why? I investigate these questions using a natural experiment in Switzerland. In the Middle Ages, the absence of an heir resulted in the extinction of a prominent noble dynasty. As a result, some Swiss municipalities became self-governing, whereas the others remained under feudalism for another 600 years. Evidence from a behavioral experiment, the World Values Survey and the Swiss Household Panel consistently show that individuals from historically self-governing municipalities exhibit stronger norms of cooperation today. Referenda data on voter-turnout allow me to trace these effects on individually costly and socially beneficial actions for over 150 years. Furthermore, norms of cooperation map into prosocial behaviors like charitable giving and environmental protection. Uniquely, Switzerland tracks every family's place of origin in registration data, which I use to demonstrate persistence from cultural transmission in a context of historically low migration.

KEYWORDS: Self-governance, norms of cooperation, cultural transmission, public goods game, referendum, Switzerland.

1. INTRODUCTION

NORMS OF COOPERATION are prescriptions of appropriate behavior in cooperation dilemmas. Since it is unfair if only some individuals contribute for the common cause, these norms could acquire the form of conditional cooperation, which urges individuals not to free ride but to cooperate if others do the same (see [De Tocqueville \(1835\)](#), [Elster \(1989\)](#), [Bicchieri \(1990\)](#), [Putnam, Leonardi, and Nanetti \(1993\)](#), [Fehr and Schmidt \(1999\)](#)). There is evidence that many individuals display the norm of conditional cooperation, and this matters for a variety of prosocial behaviors (see [Ostrom \(2000\)](#), [Gächter \(2006\)](#), [Fehr and Schurtenberger \(2018\)](#)), such as donations to charities ([Frey and Meier \(2004\)](#)), management of commons ([Rustagi, Engel, and Kosfeld \(2010\)](#)), and tax compliance ([Besley \(2020\)](#)). Furthermore, norms of cooperation, when internalized, can shape preferences

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for cooperation (Bowles (1998)). Despite this, we know little about how norms of cooperation emerge, whether they persist, and if so, why? In this paper, I study whether more inclusive political institutions that encourage participatory self-governance foster internalized norms of cooperation.

Participatory self-governance is a hallmark of democracy, as it allows for deliberative and consensual style of decision-making. This stands in contrast to autocracy, where an individual holds absolute power and engages in arbitrary decision-making. These different modes of governance are hypothesized to affect norms of cooperation. Bentham (1816) and Mill (1861) argue that self-governance offers individuals the opportunity to understand the negative externalities their actions may have on others. This may prompt individuals to develop empathy, moderate their standpoint, and build consensus by integrating divergent points of view (Putnam, Leonardi, and Nanetti (1993), Habermas (1996), Rodrik (2000), Platteau (2015)). As individuals learn to negotiate and compromise in exchange for others doing the same, they come to acquire norms of cooperation. In contrast, autocratic rule involves decision-making by a small group of people who censor discussion and use brutality to deter opposition. This repression prevents individuals from speaking their mind and builds barriers between different groups, resulting in distrust and opportunistic free riding.

In a seminal paper, Guiso et al. (2016) found a positive effect of the Italian Free City experience on prosocial behaviors operating through self-efficacy beliefs. However, there is no evidence on the importance of self-governance for internalized norms of cooperation (Papaioannou (2020)). This evidence has remained elusive, in part, because it is difficult to measure norms. A positive association between self-governance and prosocial behaviors cannot be interpreted as reflecting norms. Prosocial behavior is an equilibrium outcome, which could be capturing the importance of other confounding motives like pure altruism, beliefs about others' contribution, reputation formation, repeated interaction, and social pressure (Bénabou and Tirole (2006), Nunn (2009), Della Vigna, List, and Malmendier (2012)). Thus far, economists have paid little attention in separating norms from confounding motives, especially beliefs (see Alesina and Giuliano (2015)). This is a major gap, as scholars allude to self-governance shaping our values, that is, "the type of people we are" (Mill (1861), Putnam, Leonardi, and Nanetti (1993), Rodrik (2000), Besley (2020)). Moreover, previous studies are unable to track norms and prosocial behaviors over time, and offer little evidence on persistence in the face of migration. Crucially, self-governance may arise as a result of preexisting differences. There is rarely compelling evidence from exogenous variation in self-governance.

I resolve these challenges using a combination of experimental, survey, historical, and administrative data over time from Switzerland, which offers plausibly exogenous variation in self-governance. Swiss municipalities acquired self-governance in two phases separated by a large gap. The first phase was in the Middle Ages, when several noble dynasties administered Switzerland feudally on behalf of the Holy Roman Emperor. In 1218, one of these dynasties—the House of Zähringen—became extinct when its last duke died accidentally a few years after the accidental death of his only child and heir (Heyck (1895), Lyon (2013)). Thereafter, the Zähringen fiefs reverted to the emperor and received from him the privileged political status of "imperial immediacy." While still subjected to the emperor's rule, these fiefs became free from the authority of nobles, allowing citizens to engage in self-governance. In contrast, areas under the rule of other noble dynasties continued largely under feudalism for hundreds of years. The second phase began in the 19th century, when Napoleon invaded Switzerland and extended self-governance to areas still under feudalism via the Act of Mediation (1803). I compare municipalities that acquired

self-governance in the first phase to those that acquired self-governance in the second phase.

Several features of this natural experiment are worth noting. First, the emergence of self-governance in areas under the Zaehringen rule rather than in areas under the rule of other dynasties was because of the accidental extinction of the Zaehringen family.¹ Importantly, areas with and without the Zaehringen rule were similar in geographical environment and past proxies of prosperity and education at the time of the extinction. Second, areas under the rule of other dynasties did not choose self-governance, but it was Napoleon who introduced these reforms. Also, Napoleon did not selectively target areas with the highest potential for norms of cooperation, but extended self-governance to all those that were still under feudalism.² After Napoleon was deposed in 1814, the Congress of Vienna and a Pact between the Swiss states (called cantons) ensured self-governance in every area. Third, some areas acquired self-governance in the first phase independently of the Zaehringen extinction, but compliance remains strong. Finally, though all areas eventually experienced self-governance, the large gap between the two phases created potential pathways for persistence.

Historical self-governance in Switzerland bore similarities to other self-governing areas of medieval Europe, which make the findings from this study of general interest. The Swiss experience is noted for its coverage of not just urban but also rural areas, stronger citizen participation, absence of outside interference, and early use of referendums. Also, the Swiss experience was long-lasting, far-reaching, and based on compromise and cooperation (McCrackan (1901), Deutsch and Weilenmann (1965), Kobach (1993)). In self-governing municipalities, councils had equal representation of individuals from different interest groups. Deliberation was achieved through compulsory attendance in meetings and face-to-face communication (Schlaak (2010)). Since no one group could dictate policy to the others, building consensus required groups to make concessions in exchange for other groups doing the same. Long-term exposure to this negotiation and compromise could have fostered norms of cooperation. In fact, laboratory studies show that face-to-face communication fosters cooperation by invoking norms and group identity (Orbell, Van de Kragt, and Dawes (1988), Bochet, Page, and Putterman (2006)).

I measure norms of cooperation as a preference for *generalized* conditional cooperation in interactions with strangers. I use an online public goods game in which two Swiss citizens unknown to each other are paired randomly in a one-shot, anonymous interaction, ruling out benefits from repeated interaction and reputation formation. Each individual receives an endowment of 100 Swiss Franks (CHF) and has to decide on their contribution to the public good in units of 10 CHF. The game is implemented in the strategy method, whereby individuals decide on their contribution conditional on eleven contribution decisions by the other player, which shuts down beliefs from playing a role (Fischbacher, Gächter, and Fehr (2001)). I classify individuals as *free riders* if they always contribute close to zero, *altruists* if they always contribute full endowment, and *conditional cooperators* if their contribution increases in the contribution of the other player, as revealed by the Spearman rank correlation. Since a negligible fraction of individuals behave as altruists, lower values of Spearman *rho* imply free riding, whereas higher values imply stronger propensity for conditional cooperation.

¹Banerjee, Iyer, and Somanathan (2005) and Iyer (2010) use the death of a ruler from the absence of an heir to study the effect of direct versus indirect colonial rule on agricultural development in India.

²Acemoglu, Cantoni, Johnson, and Robinson (2011) use reforms by Napoleon to study economic growth in Germany.

I present three sets of results. First, I use OLS estimates to show that individuals from historically self-governing municipalities display twice the conditional cooperation of individuals from municipalities without historical self-governance. Instrumental variables estimates using the Zaehringen fief as an instrument for historical self-governance confirm these findings. Data from World Values Survey (WVS) and Swiss Household Panel (SHP) on attitudes toward cooperation like cheating on taxes, claiming false social benefits, lying in own interest, and paying a bribe yield similar results. Second, I show that historical self-governance has a positive effect on prosocial behaviors like donations to charities, membership in associations, and environmental protection. I then leverage 150 years of data on individually costly but socially beneficial behaviors like voting in referendums to show that historically self-governing municipalities witnessed higher voter turnout, as well as stronger support for women's suffrage and citizenship to minorities. Third, I find a positive association of norms and attitudes with a variety of prosocial behaviors, which highlights their importance in achieving cooperation.

All Swiss municipalities eventually acquired self-governance, so why do differences in norms of cooperation persist? The strong presence of state agencies and infrastructure in Switzerland rules out state capacity, protection of property rights, and constraints on executive. It is plausible that norms shaped by exposure to self-governance were passed onto the subsequent generations through cultural transmission (Boyd and Richerson (1988), Bisin and Verdier (2001)). I shed light on this channel using the epidemiological approach (Fernandez (2007), Giuliano (2007)). I show that Swiss migrants whose *birth* municipality *did* experience historical self-governance show stronger conditional cooperation than Swiss migrants whose *birth* municipality *did not*, despite living in the same canton.

Cultural transmission requires low historical migration to ensure that current inhabitants are related to initial inhabitants exposed to the treatment. I use a novel data set that tracks the movement of Swiss family names from their town of origin to their town of destination to construct a measure of historical migration. I find that historical migration was low and controlling for it does not change the main results.

Persson and Tabellini (2009) argue that transition from autocracy to self-governance occurs gradually through the accumulation of democratic capital from historical experience. Municipalities with longer history of self-governance had more time to build and consolidate democratic capital. This could have contributed further to persistence via a feedback loop in which self-governance and norms of cooperation reinforce each other (Besley and Persson (2019)). Cultural transmission and low migration are likely to have fostered this feedback loop further. Indeed, historically self-governing municipalities have stronger self-governing institutions even today: they hold twice as many referendums and initiatives to arrive at local decisions. Data from the WVS and SHP show that individuals from these municipalities hold stronger attitudes and support for democracy.

Related Literature. This paper contributes to several strands of literature. First, it builds on studies that show positive long-run effects of political institutions on economic development (Gennaioli and Rainer (2006, 2007), Michalopoulos and Papaioannou (2014), Dell, Lane, and Querubin (2018)). However, these studies do not investigate how political institutions shape norms of cooperation and prosocial behaviors.

Second, the paper complements studies linking self-governance with beliefs and prosocial behavior in the field (Guiso, Sapienza, and Zingales (2016)) and cooperation outcomes in the lab (Dal Bó, Foster, and Putterman (2010), Sutter, Haigner, and Kocher (2010)). This paper goes beyond by highlighting the importance of self-governance in shaping norms of cooperation independently of beliefs, and then linking these norms further to a variety of prosocial behaviors. This fills an important gap in the literature,

which emphasizes inclusive political institutions to have a bearing on our norms and values (Putnam, Leonardi, and Nanetti (1993), Habermas (1996), Rodrik (2000), Platteau (2015), Besley (2020)).

Third, the paper relates to the literature on determinants of cultural traits, in particular, the interaction of institutions and culture (Alesina and Giuliano (2015)). Tabellini (2010) shows constraints on executive and trust are complements, but Lowes, Nunn, Robinson, and Weigel (2017) show state formation and norms of rule following are substitutes. This paper shows that self-governance and norms of cooperation are complements using a combination of experimental, survey, historical, and administrative data to reach similar conclusions, which bolsters the main findings.

Fourth, previous studies document the importance of historical treatments for cultural traits in contemporaneous periods. This paper uses administrative data on referendums to track voter turnout, support for women's suffrage and minority citizenship in both contemporaneous and historical periods. In doing so, the paper contributes to the literature on long-run effects of historical events (Nunn (2009)), as well as determinants of voter turnout (Leeson (2008)) specifically in Switzerland (Bursztyn, Cantoni, Funk, Schönenberger, and Yuchtman (2017)), women's suffrage (Moehling and Thomasson (2020)), and minority rights (Tebbi, Aghion, and Alesina (2008)).

Fifth, the paper contributes to the literature on cultural persistence. Despite the importance of migration in explaining persistence, it is rarely studied in a historical context (Voth (2021)). This paper uses a novel data set to provide insights on historical migration and how this affects the association of historical events with norms today.

The paper is organized as follows. Section 2 describes the historical background. Section 3 presents measures of historical self-governance and norms of cooperation. Section 4 presents the empirical strategy, Section 5 the results on norms of cooperation, and Section 6 on prosocial behaviors and voter turnout. Section 7 discusses plausible channels and Section 8 offers concluding remarks.

2. HISTORICAL BACKGROUND

Historical self-governance emerged over two phases in Switzerland. I describe these phases below and then discuss the manner in which historical self-governance was implemented.

2.1. *Emergence of Historical Self-Governance*

Phase I. In the Middle Ages, Switzerland was under the control of four major noble dynasties: Zaehringen, Kyburg, Hapsburg, and Savoy (see Figure 1). The dynasties acquired large parts of their territory from the Holy Roman Emperor and administered these on his behalf as imperial fiefs, whereas a small share of territories acquired through family inheritance was administered as private fiefs. The decision-making in the fiefs was dominated by aristocrats who appointed “the richest, most distinguished, and powerful” individuals to the governing council (Holenstein (2014)). The citizens, such as craftsmen and peasants, to whom the areas owed their wealth were excluded from participation. This strong hierarchy of privileges benefited the aristocrats at the cost of the citizens.

In 1218, the House of Zaehringen became extinct when its last duke (Berchtold V) died accidentally at the age of 58 years, a few years after the accidental death of his only child and heir. This extinction led to the reversion of the Zaehringen imperial fiefs to the Holy Roman Emperor, Frederick II, who used the German feudal law to confer upon these fiefs



FIGURE 1.—Location of the Noble Dynasties in Medieval Switzerland. *Notes.* The map shows areas under the rule of different noble dynasties in Switzerland before the Zaehringen extinction. Source: Marco Zanoli 2011, Sauerländer, Rentsch, Bruckmüller, Hartmann, Böttcher (2004).

a privileged political status of “imperial immediacy.”³ Though still subjected to the fiscal, military, and hospitality demands of the emperor, the imperial fiefs were now free from the authority of nobles and their citizens could participate in decision-making. In contrast, the Zaehringen private fiefs were divided between the surviving family members, and like fiefs under the rule of other dynasties, remained under nobility.

Several historians have underlined the importance of the Zaehringen extinction for the emergence of self-governance in large parts of Switzerland. Hug and Stead (1893, p98) write that Switzerland was spared a monarchical fate “by a natural yet providential event, the extinction of the ducal family. For in 1218 Berchtold V dies, “leaving no issue.” McCrackan (1901, p. 58) notes “the extinction of the house of Zaehringen came most opportunely, for it is entirely within the range of possibility, that otherwise, the state they had erected, might have become a principality, or even a monarchy, as enduring as any of those which surround Switzerland today.” Eugster (2020) remarks “the fragmentation and the loose state of the Zaehringen inheritance served as an essential prerequisite for the tendency toward more municipal autonomy of the 13th and 14th century.” Importantly, the historical sources do not mention of any concurrent change that would have put areas on the same path of self-governance as the Zaehringen extinction.

In 1250, Frederick II’s death resulted in the great interregnum. This allowed self-governed areas to acquire considerable rights and powers previously exercised by the emperor to the point of full independence. The interregnum ended in 1273 with the election of a Habsburg as the German king, who desired to bring back self-governing areas under his control. To counteract this threat, the self-governing areas forged an alliance called the Old Swiss Confederacy, which fought three wars with the Habsburg to, inter alia, retain self-governance.

³See the Supplemental Appendix I.A (Rustagi (2024)) for plausible reasons behind Frederick II’s decision.

Some areas, especially in the remote alpine regions of Switzerland that were not under the rule of any noble dynasty, acquired self-governance in the Middle Ages independently of the Zaehringen extinction. However, this partial compliance was not large enough to offset the role of Zaehringen extinction in the emergence of self-governance.

Phase II: Reforms by Napoleon. Napoleon invaded Switzerland in 1798 and issued the Act of Mediation in 1803. This act liberated the feudal areas, made them sovereign members of Switzerland, and allowed them to have representative governments. After Napoleon was deposed in 1814, there were concerns that the newly liberated areas might revert to feudalism. The Congress of Vienna encouraged all cantons to sign the Pact of 1815, which ensured their sovereignty (Zschokke (1860), Hug and Stead (1893)). McCrackan (1901, p. 322) noted, “one is gratified to read that no subject lands and no privileged political classes would be tolerated hereafter.” In 1848 and in the 1890s, Switzerland formally adopted referendums and people’s initiatives as instruments of direct democracy. Today, Switzerland uses direct democracy at federal, cantonal, and municipal level.

2.2. *Styles of Historical Self-Governance*

Deutsch and Weilenmann (1965) note the Swiss style of self-governance was “more cooperative and less competitive, more moderate and inclined to relatively stable alliances and compromises.” Despite common features, there were differences in styles depending largely on whether an area was rural or urban. In the rural areas, such as Glarus and Uri, eligible male citizens participated directly in decision-making through voting by show of hands in open-air public assemblies called *landsgemeinde* (see Figure A.1). These assemblies constituted the highest authority through which a governing council comprising an equal number of members from each commune was elected, new laws were enacted, and superior officials including mayors and judges were appointed (Deploige and Heuvel (1898)). In the urban areas like Zurich and Basel, governing councils were divided into a smaller council (*Kleiner Rat*) comprising 50–60 members, and a greater council (*Grosser Rat*) comprising 60–200 members. These councils included an equal share of citizens from diverse interest groups, who were elected or nominated by citizens or guilds or other community-level bodies. The councils deliberated on decisions related to the formulation of laws, election of mayor, and also constituted the highest court (see Figure A.2). In the feudal areas like Vaud and Thurgau, the citizens were without political rights and were excluded from participation in decision-making (see Figure A.3). The bailiffs who oversaw the governance of these areas were appointed by and served the interest of the ruling power (Holenstein (2013)).

Many self-governed areas shared common elements including citizen participation in local-level decisions, constraints on the power of the elite, and reasonable dialogue between different groups to achieve mutual consensus (Berner (2006), Stadler (2008), Holenstein (2014)). The council met regularly, restricted the number of topics discussed on a given day, and strictly enforced the “principle of presence,” which required compulsory attendance in meetings (Deploige and Heuvel (1898), Schlaak (2010)). The primary form of deliberation was direct face-to-face communication, as there was limited use of writing (Hoffmann-Rehnitz (2010), p. 15). The power of the elites was curtailed through the inclusion of different interest groups in equal numbers in the council. Furthermore, the electoral principles prevented individuals from bequeathing municipal offices and from having siblings in the council. As the British ambassador to Bern, Stanyan (1714, p. 74) noted: “neither father or son nor two brothers can be of the council at the same time.” In one of the rural areas, a referendum forbade a powerful monastery from

using the common grazing land for free and ordered it to pay the same tax per cow as the local farmer or face exclusion from using the common (McCrackan (1901)). These experiences were important for a wider social and political integration of different group members and made them feel as belonging to “one association and one political body” (Hoffmann-Rehnitz (2010), p. 15).

Several historical events suggest that historical self-governance was valued by people. As an example, the self-governing areas engaged in three costly wars with Habsburgs, a major power of that time, to retain their status, even when they could have avoided these costs by accepting Habsburg suzerainty. The fact that they chose otherwise reveals the importance of self-governance (see the Supplemental Appendix A for details). Several records further speak of historical self-governance as reflecting a “historical” form of democracy (Deploige and Heuvel (1898)). The mayor of Schaffhausen noted in 1653 the rural cantons as places where “democratic forms are very much appreciated.” A source from Grisons in 1618 says, “the form of our government is democratic” (Suter (2016)). Stanyan (1714, pp. 108–109), also described rural cantons as “wholly democratic” where “sovereignty resides absolutely in the body and mass of the people.” McCrackan (1901, p. 281) notes “...the Swiss States, both country districts and towns, were organized upon democratic principles.” Nonetheless, it would be a mistake to view medieval Switzerland as a place with modern democratic principles, as in equal rights for all. The self-governance movement declined toward the end of the 17th century. The decline was weaker in rural areas and cities with guilds (Stanyan (1714), Holenstein (2014)).

3. DATA AND DESCRIPTIVE STATISTICS

I measure historical self-governance at the municipal level, whereas norms of cooperation are measured at the individual level. The main sample comes from a behavioral experiment, which comprises 262 individuals from 174 municipalities and 23 cantons of Switzerland.⁴ These individuals and municipalities were selected using procedures described in Supplemental Appendix A.II. Table A.1–Table A.2 show that municipalities and individuals in the sample are comparable to those that are not across a variety of characteristics, even when the comparison is within cantons. Table A.3 further shows that the municipalities in the sample are comparable to municipalities in Switzerland.

In addition to the behavioral experiment, I use survey data on attitudes toward cooperation from World Values Survey (WVS) (Inglehart et al. (2022)) and Swiss Household Panel (SHP) (FORS, (Swiss Centre of Expertise in the Social Sciences) (2022)). I also use data on prosocial behaviors like donations to charities, membership in associations, and environmental protection from SHP (FORS, (Swiss Centre of Expertise in the Social Sciences) (2022)). I augment this further with administrative data on voter turnout in referendums and initiatives (Swiss Federal Office for Statistics (2022)). I describe below the measures of historical self-governance and conditional cooperation. The data on attitude toward cooperation are described in Section 5, and on prosocial behaviors and voter turnout in Section 6.

⁴I exclude the canton of Ticino from this study. This is because, unlike the rest of Switzerland, Ticino is the only canton located to the south of the Alps, where the majority speak Swiss Italian. It was not part of the Swiss historical landscape in the Middle Ages. It was integrated into Switzerland only in the 16th century, some 300 years after the Zaehringen extinction. For these reasons, Ticino is unlikely to be a valid counterfactual.

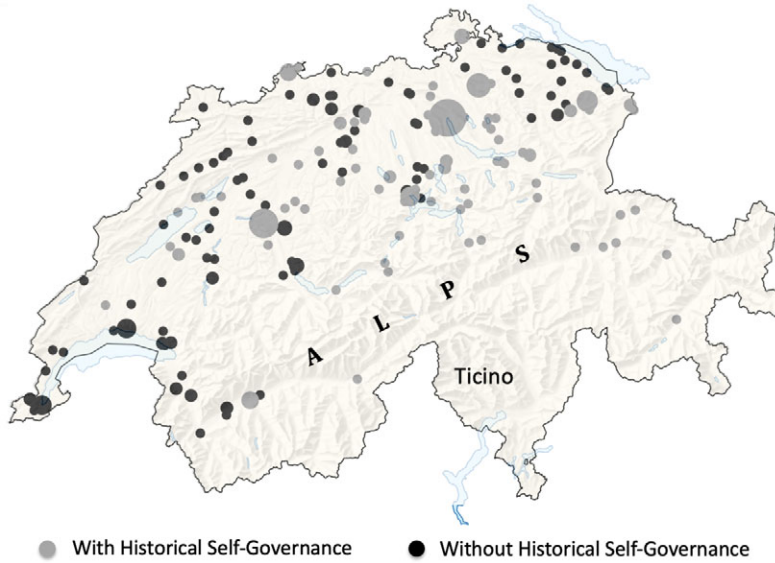


FIGURE 2.—Location of Municipalities without and with Historical Self-Governance. *Notes.* The map shows municipalities with (gray circles) and without (black circles) historical self-governance. The size of the circle is weighted by the sample size. The map also shows the location of the Alps and the canton of Ticino (excluded from the study).

3.1. *Historical Self-Governance*

I collect information on historical forms of citizen participation in decision-making in a municipality, as well as the historical bailiwick and the canton in which the municipality (was) is situated. For this, I rely mainly on Historical Lexicon of Switzerland (HLS (2018)), books by Swiss historians Gasser (1932) and Zschokke (1860), accounts of an American journalist McCrackan (1901), and British Ambassador to Bern Stanyan (1714).

My main measure is *experience* of historical self-governance. It is an indicator variable, which equals 1 for municipalities that allowed for self-governance before the reforms by Napoleon, otherwise 0. In my sample, 80 municipalities (46%) with 143 individuals (55%) experienced historical self-governance. Figure 2 shows the location of these municipalities, whereby the size of each circle is weighted by the sample from that municipality.

While conducting robustness checks, I use *duration* of historical self-governance. It is measured as the difference between the year Napoleon introduced reforms (1803) and the year around which a municipality acquired historical self-governance. If all municipalities acquired self-governance due to the Zaehringen extinction, then duration will be the same as experience. But because of partial compliance, municipalities acquired self-governance at different points in time for reasons unrelated to the Zaehringen extinction. For rural self-governing municipalities, I use the date when public assembly got established. For urban self-governing municipalities, I use the date when an independent council was elected. For some municipalities, precise dates are not available, so I use the date around which the political status of these places was affected. The sample average is over 200 years, but it is 436 years in historically self-governing municipalities.

3.2. Norms of Cooperation

I measure norms of cooperation primarily as a preference for *generalized* conditional cooperation. Measuring conditional cooperation using observational data is very difficult because of confounding with other motives operating at the same time. These include repeated interaction, reputation formation, and beliefs about others' contribution. To separate these different motives, I use a public goods game that follows the protocol of Fischbacher, Gächter, and Fehr (2001) and Fischbacher and Gächter (2010) (see Supplemental Appendix B for instructions and procedures).⁵ It has two key features: (a) one-shot interaction between strangers, which rules out repeated interaction and reputation formation from playing a role, (b) use of strategy method in which players respond to all possible contributions by the other player, which shuts down beliefs from playing a role. This protocol has been externally validated by Rustagi, Engel, and Kosfeld (2010) and Kosfeld and Rustagi (2015).

In the game, two players were randomly assigned to an experimental group. The players knew that the other player is from Switzerland, but nothing other than that. Each player received an endowment of 100 Swiss Francs (\sim USD) and could contribute any amount from 0 to 100 in the units of 10 Swiss Francs to the public good, that is, $\{0, 10, 20, \dots, 100\}$. The amount in the public good was increased by 1.5 times and then distributed equally between the two players, regardless of their contribution. The payoff of player i , where $i \in \{1, 2\}$, is given by the following equation:

$$\pi_i = 100 - C_i + 0.75(C_1 + C_2), \quad (1)$$

where 100 is the endowment received at the start of the game, C_i is the contribution of player i to the public good, 0.75 is the marginal per capita return from investing in the public good, and $C_1 + C_2$ is the total contribution to the public good. Since each Swiss Franc contributed to the public good yields only 0.75 cents back, it was individually rational for players to contribute zero to the public good. However, because the *number of players* $\times 0.75 > 1$, it was socially optimal to contribute the full endowment; this created a cooperation dilemma. The game involved two decisions:

(a) *Unconditional*: Players decided simultaneously on their contribution to the public good and beliefs about other players' contribution played a role. Contributions in this decision are confounded with beliefs, and thus could be capturing multiple equilibria—individuals with similar norms contribute differently because of differences in their beliefs. This makes contribution in the unconditional decision a poor guide to norms of cooperation.

(b) *Conditional*: Each player decided on her contribution for each of the 11 possible contribution decisions of the other player (strategy method). Since now the players could make their decisions contingent on the contribution of the other player, beliefs do not play a role. This provided a clean measure of norms of cooperation.

At the end of the game, a lottery was drawn to determine the player for whom the unconditional decision is payoff relevant. This was matched with the corresponding contribution in the conditional decision by the other player to determine payoffs.⁶

⁵I conducted three different public goods games; this paper is based on the first game.

⁶40 participants were randomly selected for payments. Since individuals could earn up to 175 Swiss Francs, the expected payoff per participant is 27 Swiss Francs. Bettinger and Slonim (2007) show that such a procedure does not bias behavior. The chosen participants earned on average 135 Swiss Francs.

I use the conditional decision to classify individuals as *conditional cooperators* if they increase their contribution in response to the increasing contribution of the other player (p -value < 0.01), *free riders* if they never contribute or contribute nonzero in only one decision or never contribute over 10 in any of the decisions, *altruists* if they always contribute 100, *flat* if they always contribute the same amount but different from zero or 100, *hump-shaped* if their contribution first increases in the contribution of the other player but then decreases, and *unclassifiable* if they do not fall into any of the above categories. The types differ neither in time taken to complete the experiment (p -value=0.47) nor game comprehension (p -value=0.99). Table A.4 and Figure A.5 show the behavior of these types and their share in the sample. I further show that unclassifiable types are not confused but show a tendency for free riding (see Figure A.6, Supplemental Appendix A.III).

I use the Spearman rank correlation between own contribution and the other players' contribution in the conditional decision to measure conditional cooperation (Fischbacher, Gächter, and Fehr (2001), Fischbacher and Gächter (2010)). The higher the Spearman ρ , the higher is the propensity to cooperate conditionally. The average propensity for conditional cooperation is 0.646 points (s.d. 0.545).⁷

3.3. Descriptive Evidence

Figure 3 shows the association between historical self-governance and conditional cooperation. It is evident from the map that individuals from municipalities with historical self-governance are much more likely to be conditionally cooperative than individuals from municipalities without historical self-governance. The bar graph confirms this finding. The raw difference in conditional cooperation across individuals from municipalities with (0.83) and without (0.43) historical self-governance is large in magnitude and is also statistically significant (p -value < 0.001).⁸

4. EMPIRICAL SPECIFICATION AND STRATEGY

I examine econometrically the effect of historical self-governance on norms of cooperation. Exposure to historical self-governance might come from an individuals' municipality of residence as well as the municipality of birth. Since for a large majority of the respondents these two overlap and the results do not change, I use exposure from the municipality of residence. Specifically, I estimate the following equation:

$$\text{Norms}_{imk} = \beta_0 + \beta_1 \text{HSG}_{mk} + \mathbf{X}_{imk} \beta_2 + \mathbf{M}_{mk} \beta_3 + \epsilon_{imk}, \quad (2)$$

where Norms_{imk} is the norm of cooperation of individual i from municipality m and canton k . It is measured primarily as the Spearman ρ between own and other players' contribution in the conditional decision of the public goods game. Subsequently, I also present results using survey data on attitudes toward cooperation, a variety of prosocial behaviors, as well as administrative data on voter turnout. HSG is historical self-governance from the resident municipality. It is measured primarily as an indicator for experience. While conducting robustness checks, I also present results using duration, which is the number of

⁷In the second experiment with the same participants, individuals were randomly matched with another player either from their own linguistic group (in-group) or from another linguistic group (out-group). I find that conditional cooperation does not differ by identity.

⁸The difference remains large when I split the data by covariates (Figure A.7).

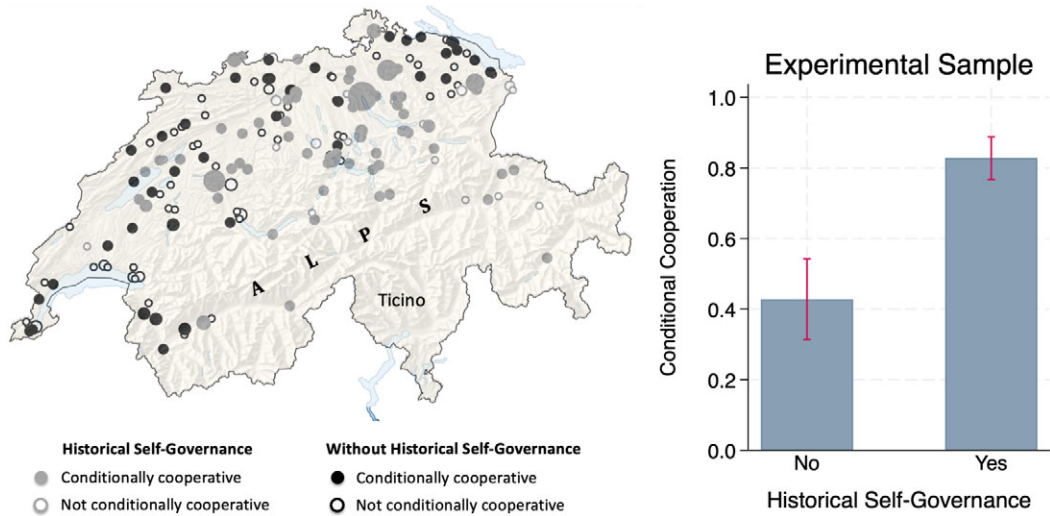


FIGURE 3.—Historical Self-Governance and Conditional Cooperation. *Notes.* Each circle on the map is a municipality. Circles with gray outline are municipalities with historical self-governance, whereas those with black outline are municipalities without historical self-governance. Solid circle (gray or black) means individuals are conditionally cooperative. Hollow circles (gray or black) mean that the individuals are not conditionally cooperative. The size of the circle represents the frequency of each individual type in the municipality. The bar graph shows average conditional cooperation by historical self-governance. The capped bars indicate 95% confidence bands.

years a municipality experienced historical self-governance. The coefficient of interest is β_1 , which captures the effect of historical self-governance on norms of cooperation.

\mathbf{X} is a vector of individual specific characteristics that include age, education, gender, log household income, religion (indicator variable for Catholic and Protestant, baseline category is no religion and others), and politics (indicator variable for left wing and center, baseline category is right wing and others). \mathbf{M} is a vector of municipality specific characteristics that include proxies of geography (altitude, navigable waterways in the Middle Ages), historical development and education before the Zaehringen extinction (medieval church including Bishop and abbey), and current economic environment (Gini of income). I consider additional variables when conducting robustness checks including climate and soil suitability for agriculture (Galor and Özak (2016)), an indicator for Roman town, population density and population growth in the historical past (Ashraf and Galor (2011)), and an indicator for access to monasteries. The data sources and summary statistics on these variables are listed in Table A.5 and Table A.6 of the Supplemental Appendix.

I cluster standard errors at the treatment unit, which is a municipality. The results hold when I cluster standard errors on the municipality and the canton, or the municipality and the historical canton, or account for spatial correlation of errors using 25, 50, 75 km distance as cutoffs.

The Zaehringen extinction served as a natural experiment through which historical self-governance was assigned. However, because of partial compliance, the intended treatment assignment is not the same as the actual treatment delivery. This means the OLS estimates of equation (2) could be potentially biased. One may use intention-to-treat estimate to correct for this bias, but studying the effect of Zaehringen imperial fief on norms

of cooperation is unlikely to be of interest. To mitigate this concern, I use (a) balance-check on observables and fixed effects strategy, and (b) instrumental variables estimates.⁹

4.1. Balance-Check and Fixed Effects

Balance check. Table I and Table II show the means of municipal and individual level covariates for municipalities without (column 1) and with (column 2) historical self-governance. Columns 3–4 report the difference in means without and with controls. The differences turn out to be mostly small in magnitude and are also statistically insignificant. Figure A.9 shows that the municipalities are also similar with respect to prosperity in the past proxied by population density and population growth. Figure A.10 shows similar patterns using current proxies of prosperity.

Fixed effects. I consider canton fixed effects to account for cantonal wide factors. However, only the canton of Bern offers reasonable variation (17 municipalities without and 10 with historical self-governance). Becker et al. (2016) show that empires can have long-lasting effects even after they perish. So, I additionally consider fixed effects for the historical cantons with which the municipalities were associated before the invasion by Napoleon. The two fixed effects differ for 8 cantons, of which only the *historical* canton of Bern offers reasonable variation. It covered 25% of Switzerland and included the modern canton of Bern (excluding the Bernese Jura), canton of Vaud, and the western half of the canton of Aargau for at least 250 years (1526 to 1798). Over 25% of the municipalities in the sample are from the historical canton of Bern (31 without and 14 with historical self-governance). Switzerland is a multilingual country, but language varies almost exclusively between cantons and individuals rarely migrate across the linguistic regions. So, canton fixed effects already account for linguistic differences. Only three cantons (Bern, Fribourg, and Valais) offer variation in language, as these are home to Swiss German and Swiss French.¹⁰

Since the inclusion of the three fixed effects has efficiency implications, I gauge their importance by looking at the raw difference in conditional cooperation by historical self-governance within the canon of Bern, historical canton of Bern, and Swiss German in Figure A.11. The patterns suggest that factors specific to cantons, historical cantons, and language are unlikely to play a role.

4.2. Instrumental Variables Estimates

I use the timing of the Zaehringen extinction interacted with an indicator for Zaehringen imperial fief as an instrument for historical self-governance. The list of these fiefs was obtained by superimposing the map of Zaehringen territories on the map of current municipalities. It was further verified using the list prepared by Heyck (1895). The first and second-stage of the instrumental variables estimation are given by equations (3–4) below:

$$\text{HSG}_{mk} = \alpha_0 + \alpha_1 Z_{mk} + \mathbf{X}_{imk} \alpha_2 + \mathbf{M}_{mk} \alpha_3 + \mu_{imk}, \quad (3)$$

⁹A regression discontinuity approach is difficult to implement because the number of municipalities with and without historical self-governance at the border is not large enough to wield power. Nonetheless, comparing municipalities within 15 km on either side of the Zaehringen boundary yields a positive and significant coefficient (coef. 0.30, s.e. 0.12).

¹⁰Most Italian speakers reside in Ticino, which were excluded from the study. I do not separately account for Rhaeto-Romance because of very few observations. I classify them as Swiss German because of their fluency in the dialect, as also revealed in the post-experimental survey.

TABLE I
BALANCE CHECK: MUNICIPAL LEVEL COVARIATES.

	Historical Self-Governance		Difference (2)-(1)		Zaehringen Imperial Fief		Difference (6)-(5)	
	No (1)	Yes (2)	Controls		No (5)	Yes (6)	Controls	
			No (3)	Yes (4)			No (7)	Yes (8)
A: Main Covariates								
Altitude	4.546 (1.0029)	4.902 (1.775)	0.356 (0.225)	0.295 (0.185)	4.696 (1.496)	4.767 (1.108)	0.071 (0.229)	0.052 (0.187)
Navigability	0.479 (0.502)	0.450 (0.501)	-0.029 (0.076)	0.024 (0.074)	0.454 (0.500)	0.515 (0.508)	0.061 (0.097)	0.084 (0.103)
Church	0.085 (0.281)	0.125 (0.333)	0.040 (0.047)	0.054 (0.047)	0.078 (0.269)	0.212 (0.415)	0.134 (0.075)	0.074 (0.075)
Gini Income	0.335 (0.059)	0.342 (0.062)	0.007 (0.009)	-0.007 (0.005)	0.345 (0.062)	0.309 (0.039)	-0.036 (0.009)	-0.001 (0.006)
Panel B. Additional Covariates								
Climate	1.479 (0.684)	1.188 (0.748)	-0.291 (0.109)	-0.140 (0.095)	1.312 (0.728)	1.485 (0.712)	0.173 (0.137)	-0.012 (0.122)
Soil	1.596 (1.609)	1.400 (1.650)	-0.196 (0.248)	-0.017 (0.243)	1.433 (1.569)	1.818 (1.845)	0.386 (0.345)	0.641 (0.341)
Roman	0.085 (0.281)	0.100 (0.302)	0.015 (0.044)	0.043 (0.042)	0.071 (0.258)	0.182 (0.392)	0.111 (0.071)	0.051 (0.069)
Distance	22.832 (15.800)	19.351 (18.002)	-3.481 (2.589)	-4.055 (2.409)	20.487 (16.263)	22.876 (19.527)	2.029 (3.636)	-1.138 (3.434)
Monastery	0.245 (0.432)	0.263 (0.443)	0.018 (0.067)	-0.039 (0.068)	0.248 (0.434)	0.273 (0.452)	0.025 (0.086)	0.077 (0.081)
Population	1.971 (2.747)	2.736 (1.957)	0.726 (1.071)	0.551 (2.539)	2.155 (2.226)	2.857 (2.489)	0.289 (1.248)	1.192 (1.379)
Obs.	94	80	174	174	141	33	174	174

Note: Panel A. Altitude is of the main municipality settlement in meters/100; Navigability is an indicator for being on a river/lake that was navigable in the Middle Ages; Church is an indicator for Bishop and abbey before 1218; Gini income is from 2006. Panel B. Climate is municipality suitability for agriculture: highly suitable, suitable, and borderline suitable/ unsuitable. Soil is municipality suitability for agriculture: very good production, good production, average production, impaired production, and unsuitable. Roman is an indicator for a Roman town. Distance is km on foot from the medieval cantonal capital. Monastery is an indicator for location within 5 km from a monastery of any order post 1218. Population is from the late Middle Ages/1000. Columns 1-2 report summary statistics by historical self-governance. Columns 3-4 report the difference in means without and with controls. Columns 5-6 report summary statistics by Zaehringen imperial fief. Columns 7-8 report the difference in means without and with controls. Control variables include other remaining variables together with municipal level proxies of education, income, religion, and politics. The numbers in parentheses are standard deviations in columns 1-2 and columns 5-6, and standard errors in columns 3-4 and columns 7-8. While regressing population on historical self-governance, I control for the date for which the data is available. In other regressions, I exclude population because it is available for few municipalities only.

$$\text{Norms}_{\text{imk}} = \delta_0 + \delta_1 \widehat{\text{HSG}}_{\text{mk}} + \mathbf{X}_{\text{imk}} \delta_2 + \mathbf{M}_{\text{mk}} \delta_3 + \eta_{\text{imk}}, \tag{4}$$

where Z_{mk} is an indicator for Zaehringen imperial fief and $\widehat{\text{HSG}}_{\text{mk}}$ is historical self-governance estimated from equation (3). For the Zaehringen extinction to be an exogenous event, its timing must be unforeseen. I believe the accidental death of the last duke in the absence of an heir meets this requirement. I offer further evidence by showing that there was no transfer in the ownership of the fiefs around the timing of extinction. While the Zaehringen acquired all of their private fiefs before 1190, the last set of imperial fiefs were acquired in 1198. Since these predate the death of the last duke by at least 20 years, it is unlikely that the extinction was anticipated. These data are for fiefs under

TABLE II
BALANCE CHECK: INDIVIDUAL LEVEL COVARIATES.

	Historical Self-Governance		Difference (2)–(1)		Zaehringen Imperial Fief		Difference (6)–(5)	
	No (1)	Yes (2)	Controls		No (5)	Yes (6)	Controls	
			No (3)	Yes (4)			No (7)	Yes (8)
Panel A: Conditional Cooperation								
Spearman ρ	0.428 (0.636)	0.828 (0.369)	0.400 (0.063)	0.449 (0.070)	0.592 (0.581)	0.793 (0.399)	0.202 (0.057)	0.208 (0.094)
Panel B: Main Covariates								
Age	45.378 (14.136)	42.678 (12.869)	-2.700 (1.753)	-2.779 (2.213)	44.717 (13.792)	41.718 (12.513)	-2.999 (1.754)	-3.322 (2.545)
Education	0.395 (0.491)	0.497 (0.502)	0.102 (0.065)	0.083 (0.068)	0.419 (0.495)	0.535 (0.502)	0.116 (0.073)	0.021 (0.085)
Male	0.546 (0.500)	0.531 (0.501)	-0.015 (0.069)	-0.020 (0.072)	0.518 (0.501)	0.592 (0.495)	0.073 (0.073)	0.113 (0.084)
HH–Income	11.650 (0.514)	11.562 (0.544)	-0.087 (0.063)	-0.011 (0.059)	11.605 (0.521)	11.592 (0.563)	-0.013 (0.075)	-0.116 (0.067)
Catholic	0.311 (0.465)	0.329 (0.471)	0.018 (0.061)	0.059 (0.048)	0.366 (0.483)	0.197 (0.401)	-0.169 (0.056)	-0.076 (0.056)
Protestant	0.336 (0.474)	0.385 (0.488)	0.048 (0.059)	0.074 (0.049)	0.335 (0.473)	0.437 (0.499)	0.102 (0.060)	0.066 (0.061)
Left wing	0.353 (0.480)	0.315 (0.466)	-0.038 (0.066)	-0.034 (0.053)	0.335 (0.473)	0.324 (0.471)	-0.011 (0.091)	-0.012 (0.071)
Center	0.403 (0.493)	0.455 (0.500)	0.051 (0.051)	0.003 (0.051)	0.424 (0.496)	0.451 (0.501)	0.027 (0.059)	0.045 (0.061)
Panel C: Additional Covariates								
Naturalized	0.210 (0.409)	0.196 (0.398)	-0.014 (0.061)	-0.021 (0.053)	0.194 (0.396)	0.225 (0.421)	0.032 (0.067)	0.033 (0.069)
Migrant	0.387 (0.489)	0.364 (0.483)	-0.023 (0.071)	-0.019 (0.072)	0.408 (0.493)	0.282 (0.453)	-0.127 (0.071)	-0.036 (0.090)
Comprehension	0.571 (0.497)	0.608 (0.486)	0.037 (0.081)	0.047 (0.069)	0.592 (0.493)	0.592 (0.489)	0.000 (0.125)	0.051 (0.095)
Observations	119	143	262	262	191	71	262	262

Note: Panel A. Spearman ρ is between self and other players' contribution in the conditional decision of the public goods game. Panel B. Age is in years. Education is an indicator for an individual with polytechnic/university degree. Male is an indicator for male. HH income is the log of annual household income/1000. Catholic and protestant are indicators for religion. Left wing and center are indicators for political orientation. Panel C. Naturalized and migrant are indicators for naturalized Swiss citizenship and Swiss migrant. Comprehension is an indicator for individuals who got the control questions right in the first attempt. Columns 1–2 report summary statistics by historical self-governance. Columns 3–4 report the difference in means without and with controls. Columns 5–6 report summary statistics by Zaehringen imperial fief. Columns 7–8 report the difference in means without and with controls. Control variables include other remaining variables as well as municipal level controls like altitude, navigability, church, Gini of income, climate, soil, and Roman. The numbers in parentheses are standard deviations in columns 1–2 and columns 5–6, and standard errors in columns 3–4 and columns 7–8.

the Zaehringen name, but it could be that anticipating extinction, the family transferred some of their fiefs via marriage to other noble houses. This seems unlikely because the last marriage in the Zaehringen family occurred in 1190, 28 years before the extinction. Moreover, because the imperial fiefs were obtained from the emperor, it was not possible to transfer these to another family without his permission.

The timing of the Zaehringen extinction appears exogenous, but there could be a concern over preexisting differences across areas with and without the Zaehringen rule. I

argue and provide evidence that this is unlikely for two reasons. First, the fiefs of all noble houses are expected to be geographically similar because of their location to the north of the Alps, on the Swiss plateau. Second, historical records show that the Zaehringen dynasty did not acquire these fiefs either by waging a war or petitioning the emperor. Rather, the fiefs were obtained from two different emperors under highly unusual circumstances (see Supplemental Appendix V.e). This is also evident from the results of a balance check in Table I. Columns 5–6 report the means of historical proxies of geographic suitability for agriculture, defense, prosperity, and education by Zaehringen imperial fief. Columns 7–8 shows that the differences between the means are small in magnitude and are also statistically insignificant. Table II reports that similar patterns are obtained when this exercise is carried out at the level of individual covariates.

The exclusion restriction is violated if the Zaehringen rule directly affected norms of cooperation. However, this seems unlikely, for as Eugster (2020) argues, the Zaehringen rule was not special but like that of any other noble dynasty. It was not characterized by religiosity, construction of ecclesiastical monasteries, provisions of law, or a pronounced state and dynasty. I attempt to assuage this concern further by using *within* Zaehringen variation in historical self-governance. This allows me to hold the Zaehringen rule fixed and compare Zaehringen imperial fiefs whose political status was affected by the extinction with Zaehringen private fiefs whose political status remained unchanged.¹¹ Table A.7 shows that Zaehringen imperial fiefs are comparable to Zaehringen private fiefs along a number of geographical and historical variables.

5. HISTORICAL SELF-GOVERNANCE AND NORMS OF COOPERATION

I start by presenting results on the effect of historical self-governance on conditional cooperation, followed by results from a variety of robustness checks including survey data on attitudes toward cooperation.

5.1. *Main Results*

Table III presents the main results. It reports only the coefficient on experience of historical self-governance. Table A.8 reports the coefficients on control variables.

OLS Estimates. Panel A presents OLS estimates of the effect of historical self-governance on conditional cooperation. Column 1 is without any controls and shows that the coefficient on experience is 0.40 (s.e. 0.063), which is statistically significant at the 1% level. It explains 13% of the variation in conditional cooperation. When I introduce municipal level control variables in column 2, the coefficient on experience rises slightly in magnitude and remains statistically significant. In column 3, I additionally introduce individual level controls. This does not lead to any major changes in the magnitude or the significance of the coefficient on experience. Among the control variables, Gini of income has a strong negative and statistically significant effect on conditional cooperation, which is in line with (Knack and Keefer (1997)) who also found a negative effect of inequality on civic capital. The introduction of control variables leads a jump in the *R*-squared by 6 percentage points, suggesting that the control variables are relevant. Given that the

¹¹The private fiefs of the Zaehringen were divided among the husbands of the two sisters of the last duke and remained under feudalism.

TABLE III
 HISTORICAL SELF-GOVERNANCE AND CONDITIONAL COOPERATION: OLS AND IV ESTIMATES.

	No Controls (1)	Municipal Controls (2)	Individual Controls (3)
Panel A: OLS Estimates			
Dependent Variable: Conditional Cooperation			
Experience	0.400 (0.063)	0.426 (0.064)	0.439 (0.069)
R ²	0.13	0.16	0.19
Panel B: IV Second-Stage			
Dependent Variable: Conditional Cooperation			
Experience	0.516 (0.143)	0.490 (0.155)	0.521 (0.170)
R ²	0.12	0.16	0.18
Panel C: IV First-Stage			
Dependent Variable: Experience			
Zaehringen Imperial Fief	0.391 (0.090)	0.385 (0.103)	0.378 (0.105)
F-statistics	18.70	14.07	12.64
Municipal Controls	No	Yes	Yes
Individual Controls	No	No	Yes
Observations	262	262	262

Note: OLS and IV estimates with standard errors in parentheses clustered on the municipality. 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.

average conditional cooperation among individuals from municipalities without historical self-governance is 0.43, these results suggest that individuals from historically self-governing municipalities are twice as conditionally cooperative.¹² In monetary terms, for each additional 10 Swiss Francs contributed by the other player, individuals from municipalities with historical self-governance increase their contribution by over 7 Swiss Francs, whereas individuals from municipalities without do so by only 3.6 Swiss Francs.

Instrumental Variables Estimates. I now present results using Zaehringen imperial fief as an instrument for historical self-governance. Columns 7–8 in panel A of Table II report reduced-form estimates (ITT) without and with controls. The coefficient on Zaehringen imperial fief turns out to be large, positive, and statistically significant (coef. 0.208, s.e. 0.094). Results from the first-stage of the IV estimation in panel C of Table III show that there is also a strong positive and statistically significant effect of being a Zaehringen imperial fief on the experience of historical self-governance. The F-statistics are large and confirm that the instrument is relevant. Panel B reports results from the second-stage of the IV estimation. Without or with control variables, experience has a large positive coefficient, which is statistically significant at the 1% level. In the specification with the full set of controls (column 3), the coefficient on experience has a magnitude of 0.521, which is only slightly larger than its OLS counterpart in panel A.

Behavioral Mechanisms. The above results arise because historical self-governance shifts the type composition toward conditional cooperation. Results in columns 6–7 of

¹²The result remains unchanged when I use experience from the birth municipality. In this case, the coefficient turns out to be 0.397 (s.e. 0.070) and is statistically significant at the 1% level.

Table A.4 confirm this by showing that municipalities with historical self-governance have a higher share of conditional cooperators by 34 percentage points, but lower shares of free riders by 7 percentage points, altruists, and flat types by 4 percentage points each, and unclassifiable types by 17 percentage points.¹³ Since the coding of different types has some discretion, I further show that the main results hold when I drop each type at a time in Figure A.12 and in Table A.10.

5.2. Robustness Checks

I carry out a number of robustness checks, which confirm the positive effect of historical self-governance on norms of cooperation. The main results are unlikely to be driven by omitted variables because the selection on unobservables would have to be 30 times greater than the selection on observables to explain these findings (Oster (2019)). Moreover, results from a randomization inference test based on 5000 draws shows that the coefficient on experience remains statistically significant (p -value < 0.001). The results are not due to influential cantons: Table A.11 shows that both OLS (column 1) and IV (column 2) estimates hold when I drop one canton at a time.

Alternative Standard Errors. Table A.12 shows that the results are robust to clustering standard errors on municipality and canton, municipality and historical canton, and to accounting for spatial correlation of standard errors.

Additional Controls. To offset the concern that some other individual or municipal specific characteristics are driving the result, I introduce additional controls at the individual level (measure of game comprehension, naturalized citizen, and Swiss migrant) and municipal level (soil, climate, and Roman town). Columns 1–2 of Table A.13 show that both OLS and IV estimates are robust to the inclusion of additional controls, which themselves enter with small and statistically insignificant coefficients.

Fixed Effects. Figure A.11 suggests that unobserved heterogeneity due to canton, language, and historical cantons is unlikely to play a role. The results in Table A.14 confirm that the OLS estimates are robust to the inclusion of fixed effects. Since the instrument varies mostly between and not within cantons, it is difficult to conduct this check for the IV estimation using the full sample. To remedy this, I use municipalities from the historical canton of Bern, which holds the historical canton fixed. Table A.15 reports the results after controlling for canton and language variables. OLS and IV estimates turn out to be slightly smaller than in the full sample, but are still sizable in magnitude and remain statistically significant. In contrast, the fixed effects are individually as well as jointly statistically insignificant.

Within Zaehringen Comparison. The exclusion restriction is violated if the Zaehringen rule directly affected conditional cooperation. To mitigate this concern, I use within Zaehringen variation in historical self-governance, which allows me to hold Zaehringen rule fixed. I compare Zaehringen imperial fiefs that experienced self-governance to Zaehringen private fiefs that did not. Table A.16 shows that both OLS and IV estimates are statistically significant and similar in magnitude to those obtained using the full sample.

¹³These results are similar in magnitude to those reported in other studies using experimental data (see Lowes et al. (2017), Bursztyń, Egorov, and Fiorin (2020), Rustagi (2023)). They are also in line with cross-country variation in the share of conditional cooperators, which is 69% in Denmark (Thöni, Tyran, and Wengström (2012)) but only 34% in Ethiopia (Rustagi, Engel, and Kosfeld (2010)).

Duration of Historical Self-Governance. Table A.17 shows that both OLS and IV estimates hold when I use duration of historical self-governance. One standard deviation increase in duration (244 years) leads to an increase in conditional cooperation by 0.23 points, which is sizable in magnitude.

Other Checks. Table A.18 shows the results are robust to dropping municipalities for which precise data on duration are lacking or assigning these to without historical self-governance. Table A.19 shows that the results hold when I include municipalities from Ticino.

Alternative Measures. I complement experimental measures with data on attitudes toward cooperation using World Values Survey (WVS) from 2007 and Swiss Household Panel (SHP) from 2011.¹⁴ In the surveys, individuals were asked to rate the extent to which it is justifiable to engage in certain behaviors on a scale of 0–10, where 0 means “never justified” and 10 means “always justified.” The behaviors include cheating on tax declaration, lying in own interest (SHP only), claiming state benefits not entitled to, and offering a bribe (WVS only). For the ease of interpretation, I invert the scale so that higher scores reflect stronger attitudes toward cooperation. Following [Tabellini \(2010\)](#), I use the first principal component underlying these responses as a summary measure. The results hold if I consider each attitude at a time or take their average. Since these attitudes involve trade-offs between private gains and social costs, ([Knack and Keefer \(1997\)](#), [Guiso, Sapienza, and Zingales \(2011\)](#)), they reflect attitudes toward cooperation. However, in these surveys, individuals have little incentive not to report socially desirable answers. [Guiso, Sapienza, and Zingales \(2011\)](#) note that “One issue with these specific measures is that people may have poor incentives to reveal their true values...Furthermore, it is plausible that those who lie to the interviewer are precisely the ones with lower civic values.” Consequently, the survey measures are expected to be biased upwards, resulting in a smaller gap between municipalities with and without historical self-governance.

Of the 174 municipalities in the main sample, 28 appear in the WVS (46% of which are with historical self-governance) and 144 appear in SHP (50% of which are with historical self-governance). Figure A.8 show the location of these municipalities and the raw differences in attitudes by historical self-governance, which turn out to be higher in historically self-governing municipalities (p -value < 0.001).

Table IV reports OLS estimates in panel A. Without or with controls, the coefficient on experience is positive and statistically significant at the 1% level. The magnitude of the coefficient suggests that individuals from historically self-governing municipalities have stronger attitudes toward cooperation by 30–50 percentage points. The IV estimates in panels B–C confirm these findings (see Table A.9 for reduced-form estimates). Panel C reports estimates from the first-stage, which show that the instrument is always relevant. Panel B reports second-stage estimates, which are similar in magnitude to their OLS counterparts and are also statistically significant.

These results hold when I use alternative standard errors (Table A.12), introduce additional controls (Table A.13) and fixed effects (Table A.15), conduct within Zaehringen analysis (Table A.16), use duration of historical self-governance (Table A.17), drop observations without precise date (Table A.18), and include Ticino (Table A.19).

Self-Efficacy Beliefs. [Guiso, Sapienza, and Zingales \(2016\)](#) find that the Free City experience in Italy operates through the formation of self-efficacy beliefs. Accordingly, I

¹⁴For WVS, this is the only year for which data are available with municipal identifiers. For SHP, this is the only wave in which attitudes were elicited.

TABLE IV
HISTORICAL SELF-GOVERNANCE AND ATTITUDES TOWARD COOPERATION: OLS AND IV ESTIMATES.

	World Values Survey			Swiss Household Panel		
	No Control (1)	Municipal Control (2)	Individual Control (3)	No Control (4)	Municipal Control (5)	Individual Controls (6)
Panel A: OLS Estimates						
Dependent Variable: Attitudes Toward Cooperation						
Experience	0.510 (0.120)	0.457 (0.130)	0.433 (0.131)	0.297 (0.096)	0.343 (0.081)	0.340 (0.073)
R ²	0.05	0.06	0.10	0.01	0.02	0.08
Panel B: IV Second-Stage						
Dependent Variable: Attitudes Toward Cooperation						
Experience	0.535 (0.144)	0.443 (0.174)	0.428 (0.158)	0.221 (0.182)	0.404 (0.135)	0.375 (0.117)
R ²	0.05	0.06	0.10	0.01	0.02	0.08
Panel C: IV First-Stage						
Dependent Variable: Experience						
Zaehringen	0.614 (0.132)	0.835 (0.194)	0.840 (0.180)	0.492 (0.087)	0.503 (0.137)	0.511 (0.133)
F-Statistics	21.52	18.50	21.82	32.33	13.50	16.67
Mun. Controls	No	Yes	Yes	No	Yes	Yes
Ind. Controls	No	No	Yes	No	No	Yes
Observations	336	336	336	1866	1866	1866
Municipalities	28	28	28	144	144	144
Baseline Mean		-0.24			-0.18	

Note: OLS and IV estimates with standard errors in parentheses clustered on the municipality. Municipal (Mun.) controls include altitude, navigability, church, and Gini of income. Individual (Ind.) controls include age, education, male, log household income, Catholic, Protestant, left wing, center. Baseline mean refers to average principal component of attitudes toward cooperation in municipalities without historical self-governance.

control for such beliefs, measured via responses to the question on fate versus control in the WVS. Table A.20 shows that the coefficient on experience retains its magnitude and significance, whereas the coefficient on self-efficacy is very small in magnitude and is also statistically insignificant.

6. HISTORICAL SELF-GOVERNANCE, PROSOCIAL BEHAVIORS, AND VOTER TURNOUT

The above results reveal a large gap in norms and attitudes by historical self-governance. I proceed by showing a reduced-form positive effect of historical self-governance on pro-social behaviors including voter turnout in referendums and initiatives. Subsequently, I show that the gap in norms and attitudes maps on to prosocial behaviors.

6.1. Prosocial Behaviors

I use data from SHP to capture the following prosocial behaviors: (a) donations to charities and the amount donated in Swiss Francs (~ USD); (b) a principal component of membership in associations (environment, charity, sports or leisure, culture, political party); and (c) a principal component of environmental protection activities (recycling,

TABLE V
 HISTORICAL SELF-GOVERNANCE, NORMS OF COOPERATION, AND PROSOCIAL BEHAVIORS.

	Donations to Charities (1)	Amount of Donation (2)	Membership Associations (3)	Environmental Protection (4)	All Prosocial Behaviors (5)
Panel A: OLS Estimates					
Dependent Variable: Prosocial Behavior					
Experience	0.114 (0.029)	203.436 (99.451)	0.235 (0.058)	0.459 (0.139)	0.591 (0.144)
Panel B: Second-Stage IV Estimates					
Dependent Variable: Prosocial Behavior					
Experience	0.248 (0.054)	341.751 (173.408)	0.278 (0.103)	0.741 (0.196)	0.977 (0.205)
Panel C: First-Stage IV Estimates					
Dependent Variable: Experience					
Zaehringen	0.516	0.520	0.516	0.515	0.520
Imperial Fief	(0.132)	(0.131)	(0.132)	(0.132)	(0.132)
<i>F</i> -statistics	17.21	17.45	17.28	16.91	17.19
Controls	Yes	Yes	Yes	Yes	Yes
Observations	1880	1819	1886	1854	1786
Baseline Mean	0.64	512.47	-0.15	-0.29	-0.37

Note: OLS and IV estimates with standard errors in parentheses clustered on the municipality. Donations to organizations equals 1 if an individual donated to an organization. Amount of donation is in Swiss Francs. Membership in associations is a principal component that includes environmental protection, charitable organization, sports or leisure, culture, and political party. Environmental protection is a principal component that includes recycling, payment of trash fee, consumption of ecological friendly products, and purchase of local fruits and vegetables to offset carbon costs. All prosocial behaviors is a principal component of all prosocial behaviors used in columns 1–4. Control variables include age, education, male, log household income, Catholic, Protestant, left wing, center, altitude, navigability, church, and Gini of income. Baseline mean refers to the average in municipalities without historical self-governance. Data are from the Swiss Household Panel.

payment of trash fee, consumption of ecologically friendly products, purchase of local fruits and vegetables to offset carbon costs).

Table V reports results from the regression of prosocial behaviors on historical self-governance, after controlling for covariates. Panel A shows that the OLS estimates are positive and statistically significant. Individuals from municipalities with historical self-governance are 11 percentage points more likely to donate to charities (column 1) by over 200 Swiss Francs per year (column 2). They are also 24 percentage points more likely to be members of associations (column 3) and 46 percentage points more likely to engage in environmental protection (column 4). The first principal component of all prosocial behaviors turns out to be 59 percentage points higher in historically self-governing municipalities (column 5). These effects are large relative to the baseline mean in municipalities without historical self-governance. Results from IV estimation confirm these findings. Panel C reports first-stage estimates and shows that the *F*-statistics are large, thereby confirming that the instrument is relevant. Panel B shows that the second-stage estimates while being statistically significant are either the same or slightly larger in magnitude than their OLS counterparts. Figure A.13 shows that both OLS and IV results hold regardless of the configuration of control variables. Figure A.14 further shows that these results are robust to the inclusion of fixed effects.

6.2. Voter-Turnout and Decision-Making in Referendums

Switzerland has been using federal referendums since 1848. Voter-turnout in these events can be considered as reflecting prosocial behavior because voting is individually costly, nonpivotal, and socially beneficial. This offers a unique opportunity to investigate the effect of historical self-governance over a period of 150 years and only a few decades after the introduction of reforms by Napoleon.

Voter Turnout. Barring the first referendum for which the data is not available, I study voter turnout in all referendums and initiatives. This data set is available only at the cantonal level and includes 676 events held from 1866–2022. From 1960s, the data is also available at the municipal level and it covers 483 events until 2022.

Table VI reports the results. I start by comparing cantons in which a large fraction of municipalities were historically self-governing to cantons in which a large fraction of municipalities were not.¹⁵ Panel A reports OLS estimates. Column 1 is without any controls and shows that cantons with a large share of historically self-governing municipalities witnessed a higher voter turnout by 5 percentage points, which is statistically significant at the 10% level. In column 2, when I introduce controls variables alongside referendum-year fixed effects, the coefficient doubles in magnitude to 11.23 and is now statistically significant at the 1% level. The magnitude of the effect is large given that the baseline mean is 45%. Table A.21 shows that this result holds when I introduce fixed effect for language.¹⁶

In columns 3–4, I conduct this analysis at the municipal level. According to the OLS estimates in panel A, in the model with full set of controls, historically self-governing municipalities witnessed a higher voter-turnout by 2.5 percentage points, which is statistically significant at the 1% level. Panel B shows the corresponding IV estimate in column 4 is also positive and statistically significant. The magnitude of the IV coefficient is larger than its OLS counterpart and implies a stronger voter-turnout in historically self-governing municipalities by over 5 percentage points. These findings are economically significant relative to the baseline mean of 43%.¹⁷ Table A.21 shows that these results hold when I introduce additional controls and fixed effects or when I conduct within Zaehringen analysis.

Inclusive Decision-Making. Since 1848, 11 referendums and initiatives were held on topics covering women’s suffrage and easier citizenship to immigrants. Of these, data at the municipal level are available for seven events that took place after 1960. These include: (a) suffrage to women (1971); (b) suffrage to 18 years old (1979); (c) equal rights for men and women (1981); (d) easier citizenship for young foreigners (1994); (e) fair representation of women in federal authorities (2000); (f) easier citizenship for young second generation foreigners (2004); and (g) easier citizenship for young third generation foreigners (2004). I investigate the share of “yes” votes in these seven events. Table A.22 reports the results. According to the OLS estimate in panel A, municipalities with historical self-governance

¹⁵I code cantons of Uri, Schwyz, Obwalden, Nidwalden, Glarus, Zug, Basel Stadt, Schaffhausen, Appenzell Ausser and Inner Rhoden, Grisons, Valais, and Zurich as largely self-governing. In contrast, Fribourg, Basel Land, Thurgau, Vaud, Geneva, and Jura are coded as largely without historical self-governance.

¹⁶Since this estimation is at the cantonal level, I cannot conduct IV estimation.

¹⁷The IV estimate are twice as large because of two plausible reasons. First, for over 20% of the municipalities in the sample, data on voter-turnout is missing for over 100 referendums, creating a measurement error. Second, now all municipalities, whether big or small, get equal weights. However, when I use weights based on population, the gap between OLS and IV estimates becomes smaller.

TABLE VI
HISTORICAL SELF-GOVERNANCE AND VOTER TURNOUT IN REFERENDUMS AND INITIATIVES.

	Cantonal Sample		Municipality Sample	
	No Controls (1)	All Controls (2)	No Controls (3)	All Controls (4)
Panel A: OLS Estimates				
Dependent Variable–Voter Turnout (%)				
Experience	4.998 (2.907)	11.235 (2.746)	1.574 (0.799)	2.539 (0.862)
Panel B: IV Estimates–Second-Stage				
Dependent Variable–Voter Turnout (%)				
Experience			1.777 (4.654)	5.674 (2.813)
Panel C: IV Estimates–First-Stage				
Dependent Variable–Experience				
Zaehringen Imperial Fief			0.251 (0.091)	0.329 (0.092)
<i>F</i> -statistics			7.59	12.87
Control Variables	No	Yes	No	Yes
Observations	12,542	12,542	79,508	79,508
Events	676	676	483	483
Clusters	19	19	174	174
Baseline Mean		45.28		43.43

Note: OLS and IV estimates. Standard errors in parenthesis are clustered on the canton and referendum in columns 1–2 and on the municipality and referendum in columns 3–4. In column 1, control variables include altitude, navigability, church, 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 3–4, 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. These years were chosen because of data availability. Events refers to number of referendums and initiatives. Clusters refers to number of cantons in columns 1–2 and number of municipalities in columns 3–4. Baseline mean refers to the average in cantons or municipalities without historical self-governance. Data are from the Swiss Federal Office for Statistics.

witnessed a significantly higher share of yes votes by over 2 percentage points. Panel B shows that the corresponding IV estimates, while also positive and statistically significant, are larger than their OLS counterparts.

6.3. Norms, Attitudes, and Prosocial Behaviors

In line with the literature, I show a positive association of conditional cooperation and attitudes toward cooperation with a variety of prosocial behaviors.

Conditional Cooperation and Prosocial Behaviors. Table A.23 reports the results. There is a positive and statistically significant association between conditional cooperation and proxies of environmental protection like use of public transport to cut down pollution and consumption of ecologically friendly products to offset carbon costs, as well as voter turnout in referendums. One standard deviation increase in conditional cooperation is associated with an increase in the use of public transport and consumption of sustainable food by 13 percentage points and voter turnout by 1.1 percentage points.

Attitudes Toward Cooperation and Prosocial Behaviors. Table A.24 uses data from SHP to show a strong positive and statistically significant association between attitudes toward cooperation and prosocial behaviors. One standard deviation increase in the principal

component of attitudes is associated with a rise in the likelihood of donation by 4 percentage points, amount donated by nearly 128 Swiss Francs, membership in associations by 6 percentage points, environmental protection by 14 percentage points, and all pro-social behaviors by 18 percentage points.

7. PLAUSIBLE CHANNELS

All Swiss municipalities acquired self-governance in the post-Napoleon period, so why have not the gaps in norms of cooperation disappeared? The municipalities have a strong presence of state agencies, which rules out state capacity, protection of property rights, and constraints on executive. After ruling out prosperity, education, trade, and alliances as plausible channels, I focus on cultural transmission, low historical migration, and feedback loop between self-governance and norms of cooperation.

7.1. *Economic Prosperity, Education, and Trade*

Literature suggests that democratic experience is associated with higher education and prosperity (Lipset (1960), Barro (1999), Papaioannou and Siourounis (2008), Persson and Tabellini (2009), Acemoglu, Naidu, Restrepo, and Robinson (2019)), which in turn are associated with higher civic capital (Knack and Keefer (1997), Tabellini (2010)). Therefore, it could be that historical self-governance led to higher education and prosperity, which then led to higher conditional cooperation today. Earlier, we saw that municipalities without and with historical self-governance are similar with respect to historical and contemporaneous proxies of education and prosperity (see Table I, Figure A.9, and Figure A.10). This casts doubt on education and prosperity as likely channels, which is also confirmed by results in Table A.25. When I include these variables as additional controls, the coefficient on historical self-governance retains its magnitude and statistical significance.

Trade is also an unlikely channel because the results hold when I control for location on navigable rivers and lakes and being a Roman town in the past, or when I restrict the sample to rural municipalities less engaged in trade than the urban ones (see Table A.26).

7.2. *Old Swiss Confederacy*

As mentioned in Section II.A. some self-governing areas formed an alliance called the Old Swiss Confederacy (OSC), whose members often cooperated, inter alia, to prevent falling under the Habsburg rule. It is plausible that exposure to this alliance shaped norms of cooperation. I test this by splitting the set of historically self-governing municipalities into two groups: (a) those that experienced only historical self-governance but were not directly associated with the confederacy (experience only), and (b) those that experienced historical self-governance and were also directly associated with the confederacy (experience plus OSC). Table A.27 reports the results. I find no difference between the coefficients on the two indicators, suggesting that the confederacy did not have any special effect. This could be because the confederacy was a loose alliance whose members sometimes fought with each other. Moreover, the alliance was divided after the reformation.

7.3. *Cultural Transmission*

I use the epidemiological approach pioneered by Fernandez (2007), Giuliano (2007) to investigate the scope of cultural transmission in explaining persistence. I compare conditional cooperation across migrants who reside in the same canton but differ in exposure

TABLE VII
 HISTORICAL SELF-GOVERNANCE AND CONDITIONAL COOPERATION: MIGRANT SAMPLE (EPIDEMIOLOGICAL APPROACH).

	Dependent Variable: Conditional Cooperation	
	(1)	(2)
Experience–Birth Municipality	0.606 (0.183)	0.571 (0.168)
Experience–Residence Municipality		0.108 (0.176)
R^2	0.52	0.52
Control Variables	Yes	Yes
Fixed Effects	Yes	Yes
Observations	89	89

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

to historical self-governance from their birth municipality. If people carry their norms when they move, then individuals whose birth municipality experienced historical self-governance should display stronger conditional cooperation than individuals whose birth municipality did not, holding common residence canton fixed. Table VII presents the results after accounting for individual and municipal level controls, the length of stay in the resident municipality, and fixed effects. Column 1 shows that migrants whose birth municipality experienced historical self-governance exhibit economically and significantly higher conditional cooperation than migrants whose birth municipality did not.

In column 2, when I additionally control for historical self-governance from the resident municipality, the coefficient on experience from the birth municipality retains its magnitude and significance. In contrast, the coefficient on historical self-governance from the residence municipality is smaller in magnitude and is also statistically insignificant. The two coefficients are also significantly different from each other (p -value = 0.05).

7.4. Historical Migration

For cultural transmission to serve as credible mechanism, historical migration between municipalities must have been low. Christ (2006) reports that 60% of the Swiss resided in their ancestral municipality until the 19th century. This was due to several reasons. First, in the Middle Ages, Swiss municipalities provided commons. This discouraged migration because the residents were reluctant to share their scarce resources with outsiders. Second, starting from the 16th century, the welfare of citizens was the obligation of the ancestral municipality, which created further hurdles to migration. In times of crisis, noncitizens were ineligible for social support and were even deported to their ancestral municipality. It was not until 1934 that many resident municipalities were mandated to provide welfare. Third, it is likely that geography also played a role, as mountains and lakes created barriers to migration.

Studying persistence in the face of migration is difficult because data on historical migration are rarely available. I use a novel data set from HLS to measure migration rates in the 19th century (HLS (2018)). The data set includes a comprehensive listing of family

names holding citizenship in a Swiss municipality at a given point in time. I compute municipality specific incoming migration rates for the period 1800–1900 as the proportion of new family names that acquired the citizenship to the number of family names already holding the citizenship. The average migration rate turns out to be 40%. Column 1 of Table A.28 shows that the coefficient on experience is robust to controlling for migration, which enters with a small and statistically insignificant coefficient. In columns 2–3, I report the results separately by median migration rate. While the coefficient retains its statistical significance, the magnitude is larger in the sample with migration rates below the median; however, the difference is not statistically significant. This result is in line with Henrich and Boyd (1998) who show that cultural transmission can maintain between-group differences for a wide range of migration rates.

7.5. Discussion on Feedback Loop

The transition from autocratic rule to self-governance does not occur overnight. In a study of democratic transitions in Europe, Berman (2007) found that the initial phase was marked by ineffectual reforms, as well as frequent switching between autocratic rule and self-governance. These occurrences were also common in newly liberated areas in Switzerland (see Meuwly (2017)). Since historically self-governing municipalities transitioned earlier, they had much more time to consolidate and build democratic capital (see Persson and Tabellini (2009)). This could have generated a feedback loop between self-governance and norms of cooperation reinforcing each other (Besley and Persson (2019)). Below I present evidence in support of this argument by showing that historically self-governing municipalities have stronger institutions of direct democracy and individuals residing therein hold stronger attitudes toward democracy.

Figure A.15 shows that the extent of direct democracy is significantly higher in cantons where many municipalities experienced historical self-governance than otherwise. I complement this result with data on how often the municipalities use local referendums and initiatives for decision-making. These data were collected by Andreas Ladner using surveys with municipal administrators in 2009 and 2016 (Ladner (2022)). Table A.29 reports the results. In municipalities with historical self-governance, the frequency of using referendums and initiatives is nearly twice as high as in municipalities without historical self-governance.

Further support for these findings comes from data on attitudes and support for democracy from the World Values Survey and Swiss Household Panel. I show in Table A.30 that individuals from historically self-governing municipalities show stronger attitudes and support for democracy than individuals from municipalities that were not. These results suggest of a feedback loop in which institutions and culture reinforce each other.

8. CONCLUSIONS

I study how norms of cooperation emerge, whether they persist, and why do they persist. My focus is on the role of inclusive political institutions that encourage participatory self-governance. The main challenges in conducting such a study are establishing causality, measuring norms independent of confounding motives, tracking effects over time, and studying persistence in the face of migration. I mitigate these challenges by combining a historical natural experiment in self-governance from Switzerland with behavioral, survey, administrative, and migration data. The natural experiment stems from the extinction of the Zaehringen dynasty, which resulted in some municipalities acquiring historical self-governance, whereas the others remaining under autocratic rule for hundreds of years.

The Swiss experience of historical self-governance lasted long and was based on cooperation and compromise, which was particularly conducive to fostering norms of cooperation.

I find a positive and significant effect of historical self-governance on experimental and survey measures of norms of cooperation. Instrumental variables estimate that use the Zaehringen imperial fief as an instrument for historical self-governance yield similar results. Administrative data on referendums reveals that these effects persist for over 150 years through stronger voter-turnout and inclusive decision-making. Furthermore, norms of cooperation matter for prosocial behaviors, such as donations to charities and environmental protection. I highlight that persistence is due to feedback loop between self-governance and norms of cooperation reinforcing each other. This was facilitated by cultural transmission and low historical migration, measured using a unique data tracking citizenship by family names over time.

These findings highlight that the interaction between institutions and culture can lead to patterns that could endure over time. They help us understand the mechanisms through which self-governance affects cooperation outcomes. Banerjee, Iyer, and Somanathan (2005) and Duflo and Pande (2007) suggest that the poor performance of landlord districts in India was autocratic landlord rule which prevented individuals from engaging in collective action. This autocratic rule may have led to weaker norms of cooperation, resulting in failure of collective action.

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