Democracy Beyond Secrecy: Assessing the Promises and Pitfalls of Collective Voting

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Abstract: *This paper assesses collective voting as a specific mode of democratic decision-making and compares it to secret voting. Under collective voting, voters gather in one place and decide by the show of hands. We theorise two potential advantages and two disadvantages of collective voting so defined. We then draw on original survey data from one of the largest polities practising collective voting, the citizen assembly of the Swiss canton of Glarus. We find that both the promises and pitfalls of non-secret voting are exaggerated. Non-secret voting's suspected pitfalls – social pressure and abstention – do not generally materialise in our sample, although for women they do appear to be relevant to some extent. However, the promises of collective voting – enabling cue-taking and discursive bridging and bonding – are equally realised to a limited extent only.*

Zusammenfassung: *Dieser Beitrag untersucht die kollektive Stimmabgabe bei demokratischen Entscheidfindungen im Vergleich zur geheimen Stimmabgabe. Bei kollektiven Abstimmungen versammeln sich die Stimmenden an einem Ort und geben ihre Stimme offen und gleichzeitig ab: Das heisst, dass jede Person sehen kann, wie die anderen abstimmen, und ihrerseits von allen anderen bei der Stimmabgabe gesehen werden kann. Der Beitrag diskutiert zwei theoretische Gefahren – sozialen Druck und Stimmenthaltung – und zwei theoretische Chancen – die Möglichkeit zum Cue-Taking und die Stärkung des Sozialkapitals durch Bridging and Bonding – einer solchen kollektiven Stimmabgabe. Anhand von Umfragedaten aus dem Landsgemeindekanton Glarus nehmen wir eine empirische Überprüfung der theoretischen Erwartungen vor. Die Ergebnisse deuten darauf hin, dass sowohl die Vor- als auch die Nachteile des nichtgeheimen Abstimmens überschätzt werden. Die vermuteten Gefahren von nichtgeheimer Stimmabgabe spielen in unserem Sample zwar eine gewisse Rolle bei weiblichen Stimmberechtigten, lassen sich aber nicht generell feststellen. Umgekehrt werden allerdings auch die erhofften Vorteile kollektiver Stimmabgabe nur in beschränktem Mass realisiert.*

Résumé: *Cet article analyse le vote collectif comme modalité de prise de décision démocratique et le compare au vote secret. Le vote collectif se caractérise par le fait que les électeurs se réunissent au même endroit et votent à la fois publiquement et simultanément. Cela veut dire que, non seulement, chaque électeur peut observer comment votent les autres, mais aussi que ces derniers peuvent observer comment l'électeur exprime ses choix politiques. L'article discute d'abord deux risques – la pression sociale et l'abstention – et deux avantages potentiels – la possibilité de s'informer auprès des autres au moment du vote (cue-taking) et le renforcement des liens sociaux (bridging and bonding) – du vote collectif. Nous menons ensuite une analyse statistique à partir des réponses tirées d'un sondage mené dans le canton de Glaris, qui pratique la Landsgemeinde. Nos résultats montrent que les craintes comme les espoirs vis-à-vis du vote collectif sont exagérés. Notre échantillon montre que les dangers avancés jouent un certain rôle auprès des électrices, mais ne peuvent être généralisés. D'un autre côté, les avantages du vote collectif ne se réalisent que dans certaines limites.*

KEYWORDS: Democracy, Voting secrecy, Citizen assembly, Collective voting

Introduction[1]

Since the 19th century, voting secrecy has been a cornerstone of liberal democracy (e.g. Braun 2006; Buchstein 2015; Orr and Johnson 2018; Teorell et al. 2017: 532; Art. 25b ICCPR). Not only does it protect individuals' political values and beliefs, it also ensures an unhindered translation of their preferences into political choices. By not having to declare how or even whether they vote, citizens can think and act freely. In fact, many hold that *only* through voting secretly do we become equal members of a democratic polity (e.g. Lever 2007); aggregating votes in this way also ensures that each and every voter is treated exactly the same (Schwartzberg 2014: 33).

Yet pockets of Western democracy have resisted the introduction of voting secrecy, most notably citizen assemblies in US, German and Swiss towns (Bryan 2004; Schaub 2016; Zimmerman 1999). Here, eligible voters gather in a specific place to express their political choice through the simultaneous show of hands or by physically separating into opposite camps, visible to all. We call this procedure "collective voting", since citizens vote as part of the political collective physically assembled. At the same time, rather than actually counting the votes, oftentimes majorities are simply estimated.

Is collective voting compatible with basic standards of free participation in democratic decision-making? Is the prize of "participating in an acclamatory process", "the excitement of shouting or hand-waving" (Schwarzberg 2014: 32) worth the cost of lacking voting secrecy? This paper critically discusses the common view that only *secret* voting at the ballot box allows for free decision-making. We do so by first theorising the positive and negative effects of collective versus secret voting. We then explore empirical evidence on collective voting gathered from one informative real-world case.

The goal of this paper is *not*, however, to either advocate the superiority of collective or argue against secret voting (cf. Seglow 2020), nor to propose alternative voting modalities (e.g. Vandamme 2018), but merely to compare real-world effects of those two (cf. also Gilljam et al. 2010: 80 f.). Indeed, the real-world case that we study offers conditions that seem rather conducive to a smooth functioning of collective voting, i.e. for its potential advantages to materialise and for potential disadvantages not to. This is to bear in mind when interpreting the results.

Conceptualising Collective Voting

Collective voting differs from secret voting on three main accounts: openness (being seen by others), publicness (seeing others), and co-presence (voting at the same time and place; Table 1). Under collective voting, only those citizens assembled in a certain place and at a given time have the chance to actually vote. They do so through the show of hands when asked to decide. Thus, all those present *can be seen* by others during the act of voting. At the same time, it is also possible for a voter to ascertain

Table 1: Comparison of collective and secret voting

| Mode | Attributes | | | Empirical manifestation |
	Others can see how I vote	I can see how others vote	All vote at the same time and place	
Collective	yes	yes	yes	Citizen assembly
Secret	no	no	no	Ballot box vote

how all others vote. Finally, voting is not just an individual act of expressing one's political preferences, but also part of a *collective experience*.

By contrast, under secret voting voters express their respective wills decentrally, sequentially and temporally isolated from each other, namely when they enter the voting booth to drop their ballot into the box or when they post their ballot, if permitted. Secrecy here implies not only the secrecy of one's own vote choice, but also of that of all others.[2] In addition, the result of a secret vote is known only once all votes are cast, collected and counted, while the centrality and exclusivity – here and now and *only* here and now – of collective voting allows determining winners (and losers) right away. All those voting instantly know whether the "yes" or the "no"-side has won, at least when the majority is clear.

Studying collective voting matters for several reasons. First, it contributes to the literature that discusses potential benefits and downsides of secret and non-secret voting in modern societies (e.g. Brennan and Pettit 1990; Engelen and Nys 2013; Manin 2015; Offe 1989; Vandamme 2018), adding an empirical perspective to a hitherto largely theoretical scholarship.

Second, the political science literature has so far treated the matter of voting modes largely as a dichotomy of secret vs. non-secret voting (cf. Vandamme 2018). Condemnation of the latter as undemocratic and anachronistic partly stems from this conceptual reduction. However, as we argue more fully below, it makes a difference whether voters are only seen by others or whether they can also see others, and whether they vote one after another or collectively, at the same time and place. This is completely different from allowing only some people (e.g. officials or the media) access to voting records to monitor voting behaviour. In fact, placing all voters on the same level in terms of both seeing others and being seen by them is perfectly in line with the democratic ideal that all voters are equal (e.g. Brennan 2016: 96).

Finally, collective voting is of interest in its own right when remembering the many – though mostly small – places where it is still in use. Thousands of citizens regularly practise collective voting to bindingly decide real-world questions in two cantons and some 1'700 municipalities in Switzerland, over 1'000 municipalities in the U.S., and some 25 municipalities in the German *Land* of Schleswig-Holstein (Ladner 2018; Schaub 2016: 83–85; Schmidt 2020; Zimmerman 1999).

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[2] Interestingly, on postal and absentee voting, Orr and Johnson (2018: 12) observe that "in either case, privacy does not facilitate secrecy. Indeed, it renders it especially precarious", given that voting from home is open to all sorts of undue influence.

Distinguishing different attributes of voting allows for a clearer conceptualisation of the potential risks and opportunities of both its secret and non-secret variants. Two extreme positions exist, one emphasising the negative, the other the positive effects of secret – and by implication also collective – voting (e.g. Lever 2007; Manin 2015; Schwartzberg 2014: 28–39; Seglow 2020; Vandamme 2018).

On the one hand, non-secret voting is feared to create or at least increase 1) *social pressure* and 2) *abstention* by deterring those who cannot afford to openly declare their preferences from participating and/or by forcing some to vote differently than they would if their choice was protected by secrecy. By contrast, advocates of open voting not only deny or relativize 1) and 2), but in the extreme argue that 3) seeing how others vote enables *cue-taking*, which is appreciated particularly by the less-informed, thus reducing the epistemic gap between "hobbits" and "vulcans" (Brennan 2016: 4–5). Advocates of collective voting also argue that 4) voting as part of a visible, tangible collective has *bridging and bonding* effects which, through encouraging inter-personal discussion and enquiries about people's observed vote choice, favour social integration and cohesion. We will address each of these aspects in turn.

Social Pressure?

Manin (2015) concisely summarises the main dangers of non-secret voting in the sense of voting in a way that others can see me. First, what he calls "open voting" allows for undue pressure and influence, particularly from one's immediate social environment: friends, family and workmates. Second, unveiling one's vote makes voting suitable for illicit transaction, since adherence to a bargain struck beforehand can be monitored. Third, the resources necessary to exercise social control and/or to strike bargains are more likely to be found with the rich and powerful, placing them at a distinctive advantage. Open voting thus cements, or at least does nothing to curb, socio-political inequality.

Undoubtedly, some or even all of these effects have happened in the past and were instrumental for introducing secret voting in the first place. Yet whether and how they would materialise in modern Western democracies, under conditions of the rule of law, the welfare state, social and territorial mobility and generally higher levels of development, is another question (Huber-Schlatter 1987: 85; Mansbridge 1983: 33–5; Mares 2015; Mill 2001 [1861]; Stauffacher 1964: 24–5; Stolz 1968: 118 and 186). For example, Manin (2015: 214) states that

> An action performed in public is more susceptible to influence by other agents than an action performed in secret is. Therefore, those with the most resources at their disposal are in a better position to influence the behavior of others if such behavior takes place in the open than if it is performed in secrecy.

The observation is certainly valid and points to a key effect of voting secrecy, namely protection from undue influence. However, the rich and powerful may not always be united in their cause. Indeed, in plural, developed and relatively large societies, such unity is generally rare. Also, there are other resources than money that render an actor powerful, such as the size of a group and its ability for collective action (Olson 1965). Yet even the richest may not be rich enough, and even the best organised not organised well enough, to keep up with modernisation and growing electorates. They might therefore no longer see vote buying as a useful way to influence political outcomes (Aidt and Jensen 2017) even if voting was open. In turn, "vote buying" may also happen under secret

voting, e.g. via ballot box stuffing, manipulating electoral registries (Teorell et al. 2017; 544; also Aidt and Jensen 2017) or, more recently, through social media (Orr and Johnson 2018).

Thus, insofar as individual and collective honesty, respect, emancipation, tolerance, a democratic political culture, modernisation and the rule of law are exogenous to voting procedures, undue influence and illicit transactions are of concern to both secret and non-secret voting. This leaves social pressure, the first of Manin's (2015) postulated dangers for free voting. Our first Expectation (E) is thus that

E1a: Experiencing social pressure is more pronounced under collective than under secret voting.

E1b: Under collective voting, people belonging to less powerful groups are more susceptible to experiencing social pressure than others.

Abstention?

Being seen by others when voting might also have positive effects. Indeed, for Brennan and Pettit (1990), open voting contributes to behaving in a "discursively defensible manner". This means that voters only adopt positions that can either be argued to lie in the common interest, or that are at least reducible to some commonly agreed principle (s): "People are more likely to vote their judgements if they can be put in a position where they may expect to be discursively challenged about their voting stance" (Brennan and Pettit 1990: 328). Open voting – that element of collective voting which stipulates that others can see how I vote – thus becomes the extension of deliberation, applying the argumentative logic to voting itself and rendering it both decisive and reasonable at the same time (Engelen and Nys 2013: 497). Seglow (2020) even goes as far as to state that other citizens, in that they are affected by my vote, have a right to know my choice.

Note that for this rationale to apply, people do not need to actually defend or advocate their positions, but they should be able to do so if required. This possibility is more likely when voting is visible to all. Voting in the open thus pushes voters to consider what they think is the common rather than only their own, private interest; it also enhances the awareness that one's decision is a matter to be seriously reflected upon (Arendt 1965: 256; Barber 1984: 188; Buchstein 2000: 655 and 695–7; Mansbridge 1983: 273; Zimmerman 1999: 180). Ideally, then, being seen by others stimulates voters to reflect on their choice before voting, without however forcing them to vote in a certain way (cf. Buchstein 2000: 655; Engelen and Nys 2013). Whether reality comes any close to this ideal is an empirical question which we are unable to answer in this paper due to a lack of data.

However, the downside of encouraging voters to vote in a discursively defensible manner is that some citizens might prefer to stay away from the vote altogether. Those kept away because of having to vote in the open will include citizens who either lack the self-confidence or think they do not have enough deliberative skills to potentially defend their vote choice – however justified, well-reasoned and common-good oriented that choice may be. By raising the (perceived and/or expected) requirements to participate, collective voting might thus lead to lower and, what is even more problematic, socially biased turnout. Citizens who are members of socially and/or politically marginalised groups or who dispose of less resources (e.g. money, education or status) would seem particularly prone to abstain in order to avoid the risk of

having to defend their choice (Engelen and Nys 2013: 501–2). Needless to say, the fact of having to be present here and now is an additional strain for some – e.g. single parents – but not others. Hence,

E2a: Overall turnout is lower under collective than secret voting.

E2b: Compared to secret voting, collective voting causes a larger participation bias between less and more privileged categories of the citizenry.

Cue-Taking?

In his justification of secret voting, Manin (2015) only targets situations in which *others* can see how I vote, be it during the act of voting or through the keeping of voting records. He is agnostic, consciously or not, about whether also *I* am able to see how others vote. Yet collective voting as defined above not only involves "voting under the eyes of others" (ibid. 211), but also having one's *own* eyes on the voting of others. Political scientists have not, to the best of our knowledge, theorised possible effects of this fact, which is why this sub-section is both eclectic and tilted towards the merits to raise the analytical bar.

Above all, seeing how others vote can help people make up their own mind (Schwartzberg 2014: 37). For Manin (2015: 211), this possibility exists but is misused, since people take cues from equally "particularistic, selfish, or narrow-minded" persons. Lupia and McCubbins (1998), in turn, argue that to take cues, senders must be perceived as trustworthy and knowledgeable rather than close (Lupia and McCubbins 1998: 63). Thus, "vote checking" (Manin 2015: 212) may be performed for several reasons: not only, as Manin suggests, to sanction voters for their choice, but also to use other citizens' voting as a cue for one's own decision. This might be driven by concern for the common good as much as by selfishness.

However, while cue-taking is beneficial if it allows less informed voters to gain easily accessible information and profit from the knowledge of fellow citizens, it is detrimental to equality to the extent that it perpetuates informational asymmetry (Bentham 1999: 107; Urfalino and Costa 2015: 170). The following thus guides our investigation:

E3a: Collective voting enables at least some citizens to engage in cue-taking.

E3b: Cue-taking under collective voting is used more often by less informed citizens and/or members of less powerful groups.

Bridging and Bonding?

Another attribute of collective voting that distinguishes it squarely from secret voting is co-presence, i.e. voting at the same place and time, usually in the central town square or hall. Co-presence with non-secret voting means that all voters can *simultaneously* see all others. We already saw that collective voting is argued to enhance discursively defensible voting behaviour because I am seen by others, some of whom might ask me about my reasons. If this happens, my co-citizens are *subjects* exerting social control over me. But when thinking about the effects of me seeing my co-citizens, they become *objects* affected

by my voting decision. The element of co-presence, then, *combines* these two roles: my co-citizens are both subjects and objects, and so am I – we are all, literally, in it together.

An experience like this might lead to an increased awareness that my co-citizens are persons just like me, will likewise be affected by the voting outcome, and have equally important and legitimate interests and beliefs which I should take into consideration when deciding. Bryan (2004: 286–92) even argues that the strong tradition of town meetings explains the fact that Vermont stands out among U.S. states when it comes to electing representatives of socially marginalized groups (cf. also Mansbridge 1983: 272–3; Parkinson 2009; Wyrsch 1927: 305). Note that this does not necessarily make me consider (what I think to be) the common good, but rather the separate and multiple individual good(s) of my co-citizens. Nevertheless, the mere fact of standing or sitting there together, as full and equal members of the larger political community, forms a stark contrast to secret voting, where voters approach the ballot box individually and which does thus not, institutionally, foster thoughts about any good other than my own – "for his particular use and benefit" (Mill 2001 [1861]: 124; see also Schwartzberg 2014: 39).

For Brennan and Pettit (1990: 326), too, a general effect of non-secret voting is that it creates a political system in which "the culture of confidentiality" is replaced by "one under which it is perfectly respectable for all to inquire about how each votes." Manin's (2015) potential for undue social pressure thus becomes an opportunity for sharing views and opinions. Similar mechanisms as those theorised by scholars of social capital (e.g. Putnam 1993) might then take place: "bridging" in case of opposing, "bonding" in case of concurring political preferences and voting behaviour. Being able to *both* see how others vote *and* be seen by them is crucial here: only the mutuality of both being seen and seeing others allows voters to grasp the existing distribution and variety of preferences in the community of which they are an integral (and voting) part. This allows them to identify like-minded voters and political opponents, and to then start coming to terms with and build trust in each other (Buchstein 2000: 658–60).

Of course, secret voting does not *prevent* voters from telling others about their political preferences before, while and after voting. But, as Engelen and Nys (2013: 496) have put it, voting secrecy "makes any attempt to reveal one's vote similar to the attempts of the fiancé telling his girlfriend that nothing happened in Vegas. There is no way of knowing he is being sincere" (also see Buchstein 2000: 658–9). Although in the age of selfies and social media this must be somewhat nuanced (Orr and Johnson 2018), the observation of all those who vote *by* all those who vote can happen only under collective voting.

Collective voting is thus not (only) the endpoint of a political debate, but (also) the starting point for ongoing discussions among individuals with transparent views. By contrast, secret voting not only isolates voters from each other at the time of voting, but also distances the act of voting from the public debate before and after. The publicness of the vote may thus help a society come to terms with its own internal divisions and (re-) kindle relations when interpreting and integrating a vote's outcome into subsequent political and social processes. This somewhat concurs with the view of "the people" who do not speak with one voice, but who instead undergo continued change (Chambers 2004). Thus, voting decisions need to be regarded as "constituting episodes" (p. 169), implying that "the burden of legitimacy" (p. 156) falls onto the process, i.e. the political debate, instead of being determined by the (temporal) outcome. As a consequence, while secret voting is oriented towards individualist "private gain" (Manin 2015: 213), collective voting is exercised not only as part of but also *for* the political community (see also Bryan 2004: 286–92). This may even amount to what Jefferson meant when he spoke of "the

opportunity of being republicans and of acting as citizens" (cit. in Arendt 1965: 256). Hence,

> E4a: Under collective voting, citizens generally assess their experiences with discussing their vote choices positively.

> E4b: Discussions about one's specific vote choice are perceived positively only if the discussing partner's own vote choice is known, too.

Sceptics may interject that it is by no means guaranteed that discussions after a non-secret vote necessarily bring citizens closer together. In fact, the opposite may very well happen, as when existing rifts between social or political groups grow even wider (e.g. Gillham 2010; 81). If false, the following can be expected to be found:

> E4c: Citizens perceive discussions about their vote choice positively, independent of whether the discussing partner is like-minded or a political opponent.

Data and Methods

Exploratory Case Study

In the Swiss canton of Glarus, the citizen assembly called *Landsgemeinde* decides all matters that are within that polity's power and that require a popular vote. The *Landsgemeinde* usually settles some ten to twenty policy questions each year. Given the Swiss federation's strongly non-centralised nature, these questions often have considerable political relevance. They range from income and property taxation through education, transport and the environment to health care and law and order (Linder and Mueller 2017: 177). During one Sunday morning each year, the citizens of Glarus thus meet to debate and vote on all issues tabled. Voting happens in a collective manner, i.e. openly, by the show of hands, centrally and at the same time. By contrast, when it comes to elections and national referendums, the same citizens vote secretly, at the ballot box. This creates an almost ideal context to assess and compare the effects of secret and collective voting, as citizens can be expected to be familiar with both procedures.

The canton of Glarus counts some 40'000 inhabitants, of which roughly 26'000 are entitled to vote. An ordinary *Landsgemeinde* attracts an estimated 7–14% of the electorate (Schaub and Leuzinger 2018: 9). Below the cantonal level, there are three municipalities: Glarus South (ca. 7'000 eligible voters), Glarus city (ca. 8'000) and Glarus North (ca. 11'000). All three run their own semi-annual town meetings, where participation rates hover around 5%. In other regards, Glarus is quite an ordinary example of a developed, liberal democracy: residents are fairly wealthy and educated, the tertiary sector accounts for the biggest share of the economy, employment stands at 84% and cantonal institutions are dominated by a centre-right bloc of Christian-democratic, liberal and conservative parties (see Online Appendix, Table A1).

Glarus is one of only two Swiss cantons to still practice the *Landsgemeinde*. That in itself is quite remarkable. Until the 19th century, eight cantons had a *Landsgemeinde;* two cantons abolished theirs in 1848, one in 1928, and three in the late 1990s. In all six cantons the replacement of the assembly by (secret) ballot-box voting was approved by a majority in a popular vote. In the last three of those six cases, the lack of voting secrecy was one of several major reasons adduced by *Landsgemeinde* opponents to claim the

superiority of ballot-box voting, but other – real or alleged – shortcomings of assembly democracy were equally or even more extensively adduced.[3] While these arguments could also be applied to Glarus, developments and conflicts specific to each of the three cantons played an important part when they eventually abolished their *Landsgemeinden* in the 1990s. So while the question of secret voting has undoubtedly played a role in doing away with the *Landsgemeinde*, it was not the decisive factor (Helg 2007: 25–42; Schaub 2016: 87–112).

Furthermore, some 80% of the ca. 2'000 Swiss municipalities also practise collective voting in citizen assemblies when it comes to municipal decisions (Ladner 2018). This indicates that non-secret voting is more or less accepted in large parts of the citizenry throughout the country. It is precisely for this reason that Switzerland has put in a reservation to the Art. 25b of the International Covenant on Civil and Political Rights (ICCPR).[4]

In sum, the conditions in our specific case seem rather favourable for a smooth functioning of collective voting. Its long tradition at regional and local level contributes to its legitimacy, while relatively high living standards and the welfare state lessen economic dependencies between citizens (though they are certainly not negligible). Also, the co-existence of different political forces and socio-economic groups has been long established, as attested by the multi-party system and, historically, the fact that the population has for centuries been composed of both catholic and protestant communities (Stolz 1968: 94–9). Last but not least, the rule of law and independent courts are strong enough to sanction bribery or undue pressure. Thus, even if we find the disadvantages of collective voting to be absent in Glarus, we cannot infer that collective voting always works. Yet if we find that its advantages are present in Glarus, this indicates that collective voting can indeed be a viable option in some contexts.

We investigate our case through an online survey conducted among some 800 citizens of Glarus in spring 2016. When recruiting our participants, the canton's administration assisted by promoting the survey using their official homepage as well as an extensive email list collected for a previous marketing study of them. In addition, we invited people to participate in the survey through contributions in the regional mass media and online. Our non-randomly selected sample is not representative in every regard (see Appendix A1). Although we explicitly encouraged citizens who only rarely or never attend the *Landsgemeinde*, our sample is disproportionally interested in politics and its participation in local, cantonal and national referendums is well above real-world levels. Furthermore, women and the oldest age group are somewhat under- and those with a tertiary degree overrepresented. Yet we still dispose of a broad and varied sample that allows for group-specific analyses. Our sample is also fairly representative of the total population when it comes to age, income, residency, and employment. We reached respondents representing the entire political spectrum: self-placement on an 11-point left-right scale rendered a normal distribution with a mean of 5.2 and roughly corresponds to the parties' vote shares in the cantonal elections 2014 as well as to the composition of the nation-wide electorate in the Swiss national elections of 2015 (Lutz 2016: 22).

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[3] Notably citizen assemblies' alleged susceptibility to demagoguery and emotions; the exclusion of citizens who are unable to attend the assembly at the set time; low turnout; the established *Landsgemeinde* practice of determining a majority by mere estimation instead of counting; and non-specific claims stating assembly democracy to be outdated (cf. e.g. Schaub 2016).

[4] "The present provision shall be applied without prejudice to the cantonal and communal laws, which provide for or permit elections within assemblies to be held by a means other than secret ballot." Cf. https://www.humanrights.ch/en/switzerland/un-conventions/iccpr-civil-rights/reservations/ [5.1.2020].

To address the problem that our sample deviates from the target population, we applied post-stratification and raking (see Appendix, Tables A6 to A10) and note differences to our non-weighted regression estimates in the result section. However, even this cannot solve the problem that self-selection into the sample is potentially correlated with people's own feelings about the *Landsgemeinde*.[5] This limits the kind of generalisations to be drawn: for instance, if we find that the hypothesised negative effects are absent from our sample, we cannot infer that concerns against collective voting are unfounded in general. At the same time, we are reluctant to interpret raw figures and instead aim to detect patterns of social bias that are linked to collective voting. In other words, we are less interested in deriving population estimates than in understanding specific effects for specific groups.

Method

To explore potentially harmful effects of collective voting, i.e. social pressure and abstention, we ran regression models with socio-economic determinants for participating at both the *Landsgemeinde* and in ballot votes. We asked whether participants had ever been pressured by someone to vote in a particular way, be it at a citizen assembly or at the ballot (see Appendix Table A2 for precise wording). We also asked respondents how many of the last five *Landsgemeinden* (i.e. between 2011 and 2015) they had attended. For the more frequently held ballot box votes, we asked in how many out of ten national votes they usually partake. We then reversed both variables to measure abstention. Since we deal with count data that suffer from over-dispersion due to the over-proportional presence of frequent participators, we ran negative binomial models.[6]

To explore potential benefits, we ran a regression model for cue-taking. People were asked whether they never, rarely, often or always observe how others vote at the *Landsgemeinde*. Regarding bridging and bonding, we assess the prevalence and experience of being addressed by others depending on the addresser's opinion.

We complement these analyses with results from a conjoint experiment that was built into the online survey to shed more light on the motives for (non)-participation (see also Stadelmann-Steffen and Gerber 2020). In this experiment, each respondent had to rate and compare ten hypothetical Landsgemeinde situations, each consisting of randomly varied combinations of five conditions that potentially influence the decision to participate (see Figures 1 to 4 for more details). Participants had to indicate the probability for them to participate in every hypothetical *Landsgemeinde* they were confronted with.

This enables us to analyse under which conditions collective voting has a beneficial or detrimental effect on the decision to participate. Besides the fact that conjoint experiments account for the multidimensionality of choice situations, they also better mitigate social-desirability biases compared to standard survey questions that attempt to capture sensitive topics such as fears or feelings of being pressured (Horiuchi et al. 2018). Recall that collective voting means socially embedded voting rather than isolated voting. Thus, our prime focus in the conjoint analyses lies on the attribute called "company": we compare the effect of the availability and type of company (family, friends, workmates, neighbours or none) on the decision to attend the *Landsgemeinde*.

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[5] We thank an anonymous reviewer for highlighting this point.

[6] The results of Likelihood-ratio tests (available upon request) confirm that negative binomial models are to be preferred over Poisson regression models.

Table 2: Determinants of social pressure

	Landsgemeinde	Ballot Box
Female	0.106	–0.113
	(0.297)	(0.381)
Age in years	–0.026**	–0.040**
	(0.009)	(0.013)
Household income	–0.048	0.291[+]
	(0.148)	(0.173)
Education	0.012	–0.187
	(0.089)	(0.117)
Constant	–1.286[+]	–1.036
	(0.768)	(0.941)
N	710	719

Note: Logistic regression with Penalized Maximum Likelihood Estimation in Stata (firthlogit). Standard errors in parentheses.
[+] $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Evidence

Social Pressure

Asked whether they had ever felt under pressure when voting,[7] 95% of our respondents answered they never had when voting secretly, i.e. at the ballot. The corresponding number for voting collectively (i.e. at the *Landsgemeinde*) was just slightly lower. Under both voting modes, less than 1% of respondents said they often or always felt under pressure to vote in a particular way. Finding no explicit differences between voting secretly or voting publicly in our sample may be taken as an indicator that the Glarus *Landsgemeinde*, with usually some 2–3'000 participants, exceeds a crucial size, allowing one to disappear within the crowd – secrecy in public, so to speak. As a result, only the surrounding peers can actually observe one's vote.

To examine differences between groups, we calculated a regression where the dependent variable indicates whether respondents have ever experienced social pressure when voting collectively. Since indicating to have experienced social pressure is rather rare, we ran Penalized Maximum Likelihood Estimation models (Firth 1993). The result for collective voting is that particularly young citizens are disproportionately prone to feel social pressure – but they do so also under secret voting (Table 2).[8] All in all, our – admittedly tentative – evidence suggests that socially weaker groups do not suffer from widespread social pressure under collective voting as practised in Glarus, or at least not more so than under secret voting.

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[7] See Appendix A2 for the exact wording of the question.

[8] We also calculated additional regression models with further control variables, but the effect of age proved to be robust (see Table A3 in the Appendix). We also assessed whether social pressure is related to abstention. Yet a chi2-test between attendance at the last *Landsgemeinde* and experiencing social pressure is far from significant (p=0.435).

Abstention

Official records and estimations across different places and periods confirm that turnout under collective voting is lower than under secret voting. Attendance rates at citizen assemblies on the Swiss cantonal and municipal level as well as in US towns are clearly lower than participation rates at ballot votes (Bryan 2004: 130 and 280; Ladner 2011: 65–7; Schaub 2016: 461–6). In the canton of Glarus, a mere 7–14% of the electorate usually attend the *Landsgemeinde*, whereas turnout in federal referendums and cantonal elections at the ballot reaches some 30–40% (Schaub and Leuzinger 2018: 13–4).

However, several explanations for the low turnout in collective voting are adduced, with its non-secret nature being only one besides other features pertaining to collective voting. Most often, the necessity to vote at a specific time and place (no flexibility as to when or where to vote), the greater amount of time required (duration of the assembly and journey there), and the bigger physical efforts (standing or sitting for several hours, in the case of open-air assemblies such as Glarus also exposure to the weather) are mentioned as explanations (Bryan 2004: 197–9 and 281–4; Helg 2007: 81–5; Ladner 2011: 63; Schaub 2016: 436–41; Stadelmann-Steffen and Dermont 2016).

While our survey data are not helpful to assess the effect of non-secret voting on turnout due to the underestimation of abstention, they still permit group-specific analyses of whether underprivileged groups are disproportionately affected by low turnout. If this was not the case, it seems unlikely that the risk of having to discursively defend one's vote choice, which is induced by the non-secret nature of collective voting, has a strong deterrence effect on citizens.

Table 3 shows that participation at the *Landsgemeinde* is biased with regard to marginalized groups, but not necessarily more so than participating at the ballot: younger people abstain significantly more often, but they do so from the ballot as much as from the *Landsgemeinde*. In addition, we detect a significant effect for education in the *Landsgemeinde* model that is only marginally significant in the ballot box model. In turn,

Table 3: Determinants of abstention

	Landsgemeinde	Ballot Box
Female	0.206[+]	0.335*
	(0.108)	(0.136)
Age in years	–0.013***	–0.026***
	(0.003)	(0.004)
Household income	–0.094[+]	0.023
	(0.055)	(0.067)
Education	–0.074*	–0.075[+]
	(0.033)	(0.040)
Constant	1.347***	1.829***
	(0.285)	(0.368)
lnalpha	–0.153	0.747***
	(0.147)	(0.095)
N	651	718

Note: Negative binomial regressions estimated in Stata. Standard errors in parentheses.
[+] p <0.1, * p <0.05, ** p <0.01, *** p <0.001.

we observe a significant effect for gender in the ballot box model whereas the same effect is only marginally significant in the assembly model.[9]

In sum, overall turnout is generally lower at the *Landsgemeinde* than at ballot-box votes. However, it is questionable whether this is due to the non-secret nature of collective voting or rather due to other features pertaining to it (e.g. fixed time and place). At first sight, less powerful groups do not seem to be more reluctant to participate at the Landsgemeinde than they are at the ballot. This may be a hint that it is not the potential need to justify one's vote choice which deters people from participating in collective voting. We will return to the motives behind the decision to participate at the *Landsgemeinde* below.

Cue-Taking

74% of respondents stated they never checked how others vote before raising their own hand at the *Landsgemeinde*.[10] Some 25% said they did so only rarely, 2% that they often or always look around before voting.[11] While the share of regular cue-takers is small, a quarter of respondents indicated that they at least rarely profit from the fact that they can observe others while voting to take cues. This meets our expectation of "at least some" as stated above (E3a).

Turning to E3b, a t-test reveals that the decision to observe others is significantly linked to lack of internal political efficacy: people who sometimes observe others' voting behaviour also say they have more difficulties understanding politics.[12] This result is confirmed in a multiple regression including socio-demographic determinants together with internal efficacy (Table 4, Model 2). This suggests that they indeed take cues from (potentially) more informed co-citizens to form their opinion. While this alone is not alarming, it does give rise to concerns that women and younger people, who display significantly lower values of internal political efficacy, are also more likely to take cues.[13] The effects for gender and age remain significant also without internal efficacy (Table 4, Model 1).[14] This creates the danger that their group-specific interests are not given appropriate political expression.

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[9] The effect for gender becomes clearer in the Landsgemeinde model when poststratification weights for gender, age or municipality are introduced. On the other hand, it vanishes when post-stratifying for education. Furthermore, and with the exception of age, all effects disappear in a full model including controls for a series of political motivational factors (see Table A4 in the Appendix).

[10] The wording of the survey question was as follows: "Seeing how others vote can be helpful to form one's own opinion. Have you ever first checked how others vote before raising your hand yourself?" (see Appendix A2 for the original wording in German).

[11] Results for vote checking at the municipal assemblies are almost identical.

[12] The mean value of internal efficacy on a scale from 1 (cannot understand political issues at all) to 10 (understand them very well) is 6.68 for people who admitted to take cues at least rarely and 7.54 for people who indicated to never take cues (t= 5.5748).

[13] While only one in five men has taken cues from others, one in three women has (chi2 = 12.2700, p<0.001). Similar results are detected for age: 50% of the 18–25-year-olds report to occasionally observe their bystanders, a proportion which steadily decreases for older age groups until it reaches 13% for the respondents aged 66 or more (chi2 = 46.2131, p<0.001). Interestingly, no such effect is identified for income classes.

[14] The effect for gender vanishes when including additional controls, mainly a series of political motivational factors (see Table A5 in the Appendix). The same when we post-stratify our regression for education (see Table A9 in the Appendix).

Table 4: Determinants of cue-taking

	Model 1	Model 2
Female	0.458*	0.312[+]
	(0.182)	(0.189)
Age in years	−0.032*[**]	−0.030*[**]
	(0.006)	(0.006)
Household Income	−0.005	0.012
	(0.092)	(0.093)
Education	−0.071	−0.028
	(0.056)	(0.058)
Internal Efficacy		−0.161*[*]
		(0.050)
Constant	0.626	1.459*[*]
	(0.485)	(0.548)
N	715	709

Note: Logistic regression models estimated in Stata. Standard errors in parentheses.
+ p <0.1, * p <0.05, ** p <0.01, *** p <0.001.

Mutual Discussions: Bridging and Bonding

What about the potential of collective voting for inter-personal debates *after* having voted? 38% of respondents indicated that it had already happened to them that someone addressed them about their voting behaviour. The approaching person revealed their own preferences in almost 80% of these cases, with these preferences being mostly opposed to those of the approached. 75% of respondents that were approached indicated that at least one addressing person disagreed with their vote, while 41% had been at least once been addressed by someone who shared their view (respondents could affirm both options since they may have been approached more than once). A large majority of 78% perceived such encounters positively, with only slightly lower figures for respondents who were (also) addressed by disagreeing fellow citizens (73%) and by people who did not disclose their vote choice (70%). Negative verdicts on personal encounters concerning observed voting behaviour were most common for interactions with people who did not disclose their own viewpoint: 12% of respondents expressed discomfort with such an encounter, while figures are clearly lower for encounters with disagreeing (8%) or concurring citizens (3%).

However, many people mentioned that demanding fellow citizens to *justify* their vote choice could be considered inappropriate. One respondent said that "the open vote is a cultural element that demands, from everyone involved, high standards of correctness and fairness." Nevertheless, most respondents who commented on that question stated that they remained true to their opinion and were readily willing to justify it if asked. Even so, one respondent shared his negative experience of encountering a customer who claimed no longer to buy goods in the respondent's store due to the latter's vote choice. As a consequence, the attacked person now abstains from the vote in municipal town meetings and, in the bigger *Landsgemeinde*, avoids standing close to citizens from his municipality.

In sum, a large majority of respondents who have at least once been approached by fellow voters view their vote as a public act and accept, or even appreciate, that this might spur conversational enquires. Discussions about their own voting behaviour, to the extent that they occur, are evaluated largely positively, in line with E4a. While of all encounters

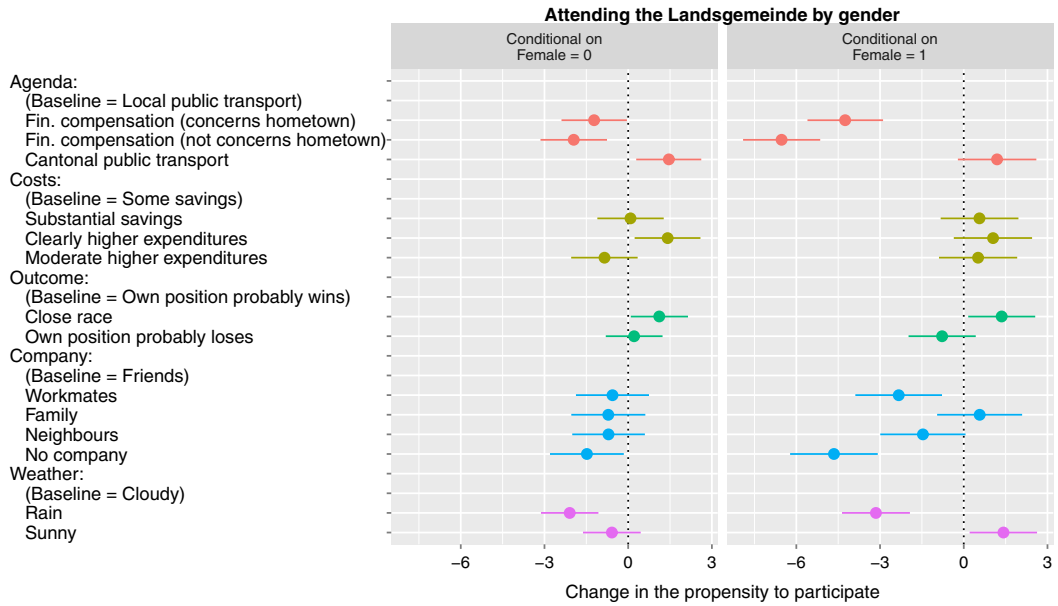Figure 1: The propensity to attend the *Landsgemeinde* by age
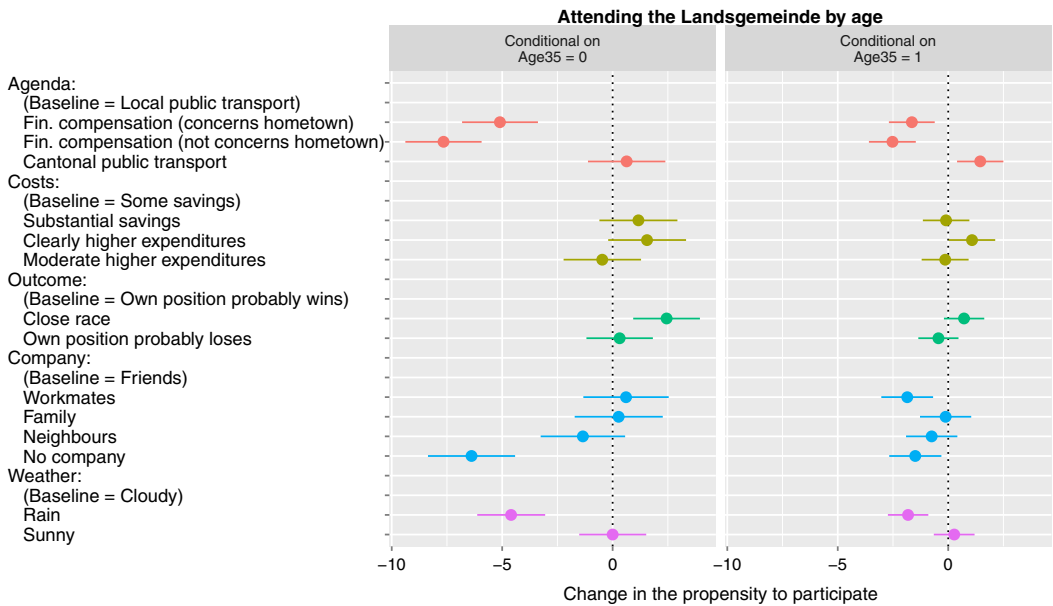
Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 870, N observations = 8699. Note that each respondent was asked to assess 10 Landsgemeinde situations. Age35=0: Respondent is 34 or less years old. Age35=1: Respondent is 35 or more years old. [Colour figure can be viewed at wileyonlinelibrary.com]

those initiated by fellow voters not disclosing their own vote were evaluated the most negatively, still only 12% regarded such encounters as unpleasant, contrary to E4b. Finally, regarding E4c, while encounters with political opponents are somewhat more often perceived negatively than those with like-minded voters, the share of negative perceptions is below 10% in both cases. This suggests that discussions after voting collectively can enhance mutual understanding and trust among voters rather than deepening differences and creating conflicts. However, we remain ignorant of how the 62% of respondents who have never been addressed by fellow citizens would react. This large share of unapproached citizens also indicates that the potentially beneficial effects of post-vote discussions through collective voting materialise only to a limited extent.

Exploring the Motives Behind the Decision (Not) to Participate in Collective Voting

To explore the motives (not) to participate at the *Landsgemeinde*, we first ran separate conjoint analyses for particular groups. We expected different effects for political minority groups according to the availability and the type of people accompanying them. However, neither low-income nor low-educated groups are more sensitive to the type of company compared to wealthier or more educated citizens (even somewhat to the contrary, see Appendix Figure A1 and A2). In contrast, being bereft of company has a huge negative effect on the probability to participate for people aged below 35 compared to older persons (Figure 1). Nevertheless, people aged over 35 are also somewhat more reluctant to participate when no company is available or when accompanied by workmates.

Figure 2: The propensity to attend the *Landsgemeinde* by gender

Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 869, N observations = 8689. Note that each respondent was asked to assess 10 Landsgemeinde situations. Female=0: Respondent is male. Female=1: Respondent is female. [Colour figure can be viewed at wileyonlinelibrary.com]

Differences are more clear-cut for gender (Figure 2). For men, the type of company hardly impacts their decision to participate at the *Landsgemeinde*. Like most other groups, they are more reluctant to show up when no company is available, but the effect is comparably small. Women, in turn, are significantly and substantially less likely to participate when alone or when accompanied by workmates compared to friends.[15]

Can this be interpreted as evidence for the detrimental effects of collective voting to specifically hit only *some* groups? Unfortunately, we cannot provide a definite answer on the reasons for particular groups to be more or less reluctant to participate depending on the available company, for such company can have different meanings. On the one hand, it may work as a mobilizing factor in that politically less interested citizens are attracted by the social nature of the event (Mansbridge 1983; Schaub 2016: 420–1). Or, as argued above, company may offer a possibility for cue-taking to people who are unsure of how to vote, which is more likely to happen when ties are strong, i.e. when being accompanied by family or friends (Bond et al. 2012). People with strong ties also tend to share similar views, be it because they chose to befriend like-minded persons or because their views have converged over time (e.g. Lazer et al. 2010). Being accompanied by friends may thus not only offer a possibility for cue-taking and bonding, but also shield one from encountering dissimilar attitudes.

Following this line of thought, the open nature of collective voting can also turn company into something negative, notably for persons who harbour different political

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[15] The effect for neighbours compared to friends is only marginally significant.

Figure 3: Propensity to attend the *Landsgemeinde* by expected outcome; young only
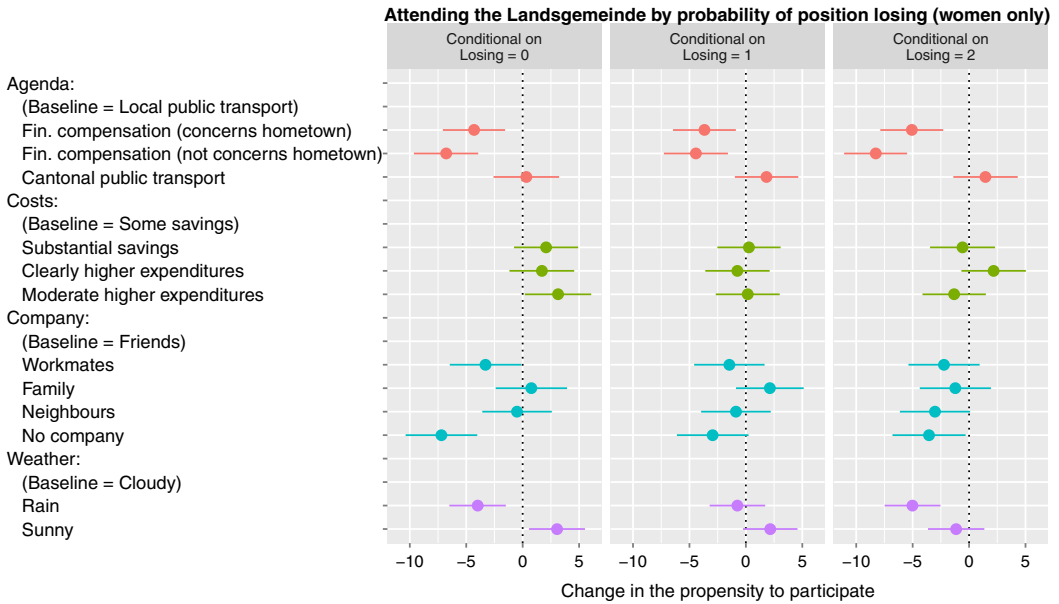

Attending the Landsgemeinde by probability of position losing (young only)
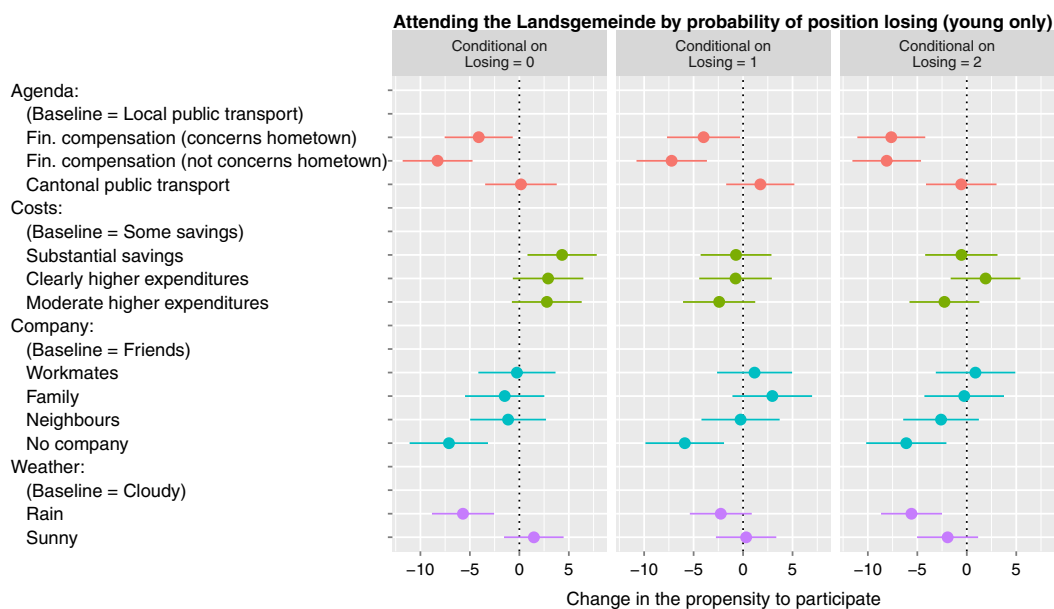
Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 235, N observations = 2350. Only people below the age of 35 considered. Note that each respondent had to assess 10 Landsgemeinde situations. "conditional on losing 0" = defeat expected; 1 = close race expected; 2 = expected to win. [Colour figure can be viewed at wileyonlinelibrary.com]

views. To shed more light on the argument that collective voting may inhibit people from participating because of fears of being confronted with dissimilar political views, we interact the attributes of company with the (expected) result of a vote. We assume that defending one's opinion is particularly intimidating for people who belong to the eventually defeated minority. Psychology provides two reasons for this.

First, the need for social approval renders it more desirable to belong to the majority group. Second, majority opinions are more easily accepted simply because they are more widely shared (see Martin et al. 2008: 363). If members of traditionally marginalized groups belong to the minority opinion, this might raise the hurdle for defending their opinion in front of others even more. Thus, being accompanied by nobody or by somebody other than friends and family makes encountering dissimilar perspectives more likely (cf. Mutz and Mondak 2006); if this leads members of marginalized groups to abstain *particularly* when they belong to the minority opinion, that would provide further evidence for the detrimental effects of collective voting for only some groups (E2b) due to the higher risk of having to defend one's choice.

We focus on women and youth, the two potentially marginalized groups for which we found the type of company to matter the most (see above). Yet for young people, the impact of company does not vary across expected vote results (Figure 3). No matter if one expects to lose, see a close race or win, the negative effect of "no company" on turnout probability is almost identical.[16] Together with the fact that no other company type

Figure 4: Propensity to attend the *Landsgemeinde* by expected outcome; women only

Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 366, N observations = 3660. Only women considered. The effect of neighbours when expected to win as well as the effect of no company when the vote is expected to be tight are only significant at a level of p<0.1. Note that each respondent was asked to assess 10 Landsgemeinde situations. "conditional on losing 0" = defeat expected; 1 = close race expected; 2 = expected to win. [Colour figure can be viewed at wileyonlinelibrary.com]

(compared to friends) matters significantly, we conclude that young people do not abstain for fear of having to defend their view in front of different-minded citizens.

By contrast, the effect of no company is particularly strong (and negative) when women expect to lose (Figure 4). Similarly, workmate company has a significant negative effect only when women share the minority's opinion. Running the same analyses for men, we also find company to matter most (and in the expected direction) when respondents share the minority's opinion, but effects are less clear-cut and much smaller: the difference between no company and friends is only marginally significant when male voters expect defeat or a close race (see Appendix Figure A4).

Concluding Discussion

This paper has questioned the widespread conviction that only secret voting can meet basic standards of free participation in democratic decision-making. We have conceptualised collective voting as an already existing alternative and assessed four theoretical merits and dangers. Under collective voting, citizens vote in a way that is visible to all (openness), they can see how others vote (publicness), and all vote at the same time and place (co-presence). Each of these three aspects accounts for specific theoretical chances and risks related to this mode of voting as compared to secret voting,

which builds on the idea of isolating voters from each other as well as separating the voting act from other political and social processes.

Analysing data from an original survey among some 800 citizens in the Swiss canton of Glarus, we found that being seen by others at the time of voting is only rarely regarded as problematic. However, while we do not find an effect of secret voting on participation in our data, we cannot definitely answer the question whether the low turnout (15% of the electorate at most, as per Schaub and Leuzinger 2018) is related to the voting mode. At the very least we do not find any evidence in our data that the collective voting mode deters potential voters. Nor is there evidence of socially biased participation under collective voting – at least not more so than for secret voting. At the same time, citizens evaluate the political discussions ensuing among them after observing each other's voting behaviour, though limited in extent, largely positively. This also holds for discussions between citizens with opposing views.

Nevertheless, most citizens were never actually confronted about their vote choice, and some, though limited, portions of the electorate reported uneasiness with their voting behaviour being seen by others and/or when directly addressed about it. And while it may be an advantage that collective voting provides cues to the less informed, cue-taking is socially biased, i.e. more prominent among the less internally effective, the young, and women. Depending on the identity of cue givers, this raises concerns for political equality and efficacy.

Our experimental conjoint analyses on the effects of company for attending the *Landsgemeinde* also produced differentiated results. While participation by low-income and low-education persons does not depend more on company compared to their peers, it does for younger and female voters. For younger citizens, that finding is probably rather due to the attraction of the *Landsgemeinde* as a social event than to (suspected) political pressure, as this effect does not depend on their expected probability to win or lose. By contrast, we find (tentative) evidence that collective voting negatively affects women: they are particularly reluctant to attend a *Landsgemeinde* when they expect to lose and lack company by friends or family members. The risk of having to justify their public voting behaviour in front of other, potentially disagreeing citizens (including neighbours and workmates), might indeed be an issue for women.

This would be in accord with a study by Gerber et al. (2019) who find women to be substantially less willing to hold a speech at the *Landsgemeinde*. Still, we are cautious in drawing definite conclusions. Women are also somewhat more sensitive to company when expected to win compared to when a close race is expected. Thus, the possibility to socialize, notably with family members or friends, may also work as a pull-factor independent of the political motivation to participate. Other results from our survey render support to this explanation: women were significantly more likely to indicate that the possibility to socialize is an important reason for them to attend the *Landsgemeinde*.[17] Certainly, further and deeper analyses are needed to substantiate these tentative conclusions.

In sum, while non-secret voting's suspected main pitfalls – social pressure and abstention – do not generally materialise, its key promises – deliberative cue-taking and discursive bridging and bonding – are equally realised only to some extent. This does not mean that secret voting is democratically inferior, nor have we attempted to prove so. But our analyses provide grounds to remain inquisitive about the advantages and disadvantages of secret voting, rather than just accepting it as an unquestionable condition of modern democracy

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[17] So did younger people (see Appendix, Table A11).

everywhere, always. Our findings also provide a reason to further investigate why and under which conditions non-secret voting may indeed be a viable alternative.

The exploratory nature of our case study means that we can formulate merely tentative conclusions about collective voting's scope conditions. We are unable to determine the extent to which its apparently rather smooth functioning in Glarus is due to the relatively high living standards, lack of ethnic cleavages, small community size or the fact that collective voting has been practiced at the *Landsgemeinde* and the municipal assemblies for centuries. One particular factor that we were unable to vary concerns the size of the assembly. The Glarus *Landsgemeinde* is usually attended by some 2'000 to 3'500 citizens (Schaub and Leuzinger 2018: 18). Indeed, Glarus is one of the largest, if not *the* largest assembly democracy that exists today. It is conceivable that in assemblies whose size falls below a certain threshold, say a few hundred, the dangers of being seen by others get amplified while the merits of seeing others diminish. More generally, we advise against extending our conclusions to settings where the rule of law is weak and bribery, threats or other illicit attempts escape judicial prosecution.

Two further limitations ought to be mentioned. The first is case-specific: in Glarus, non-secret voting is used for regional and local policy-making, while secret voting is used for national referendums and elections at all three levels. While asking citizens with real-world experience under both secret and collective voting increases our trust in the validity of their answers, we cannot completely isolate the voting modality from other factors such as persons vs. policies or the state level. Social pressure in particular might be more of an issue when it comes to electing specific persons rather than choosing among abstract policy alternatives.

The second limitation pertains to our survey data, which may be prone to social desirability bias and the representativeness of which is far from perfect, although it performs very well on several key attributes (see Table A1). While we tried to mitigate the social desirability issue by making use of the conjoint experiment, frequent *Landsgemeinde* attenders and politically interested citizens are clearly overrepresented. Huckfeldt and Mendez (2008) found people who are politically more engaged to be more inclined to discuss politics even when this results in disagreement. Additional research is thus needed in order to fully assess how politically less interested citizens cope with the possibility of being addressed by disagreeing individuals after voting collectively.

There remains a range of further theoretical advantages and disadvantages of collective voting which we have not looked at in this paper due to a lack of space and data. For example, another potential merit of being seen is that it allows for expressive voting, i.e. for citizens to publicly document their position in society when voting (Buchstein 2000: 671–5; Bühlmann 2006: 63). It would be worthwhile to empirically investigate to what extent such a desire is present in modern democracies. A further potential of collective voting is that it allows for cooperation among voters: seeing others and being seen by them while voting enables logrolling and thus a better reflection of the voters' preferences (Offe 1989: 767; Stolz 1968: 177–81). Collective voting might also help to avoid undesired effects of protest voting: It allows potential protest voters to wait a second or two before voting and at least roughly check whether there is a majority for their actually preferred option and whether it is thus "safe" to cast a protest vote. If not, they still have the opportunity to express their true preferences (Myatt 2017; Offe 1989: 767).

In sum, in contrast to the dominant, almost apodictic view of voting secrecy as an indispensable element of liberal democracy, and despite the limitations just acknowledged, this paper has explored some democratic potentials and pitfalls of being seen, seeing others, and being collectively assembled at the time of voting. It invites scholars both to substantiate the negative effects of non-secret voting and to examine its potential advantages as compared

to voting secretly, sequentially, and in isolation from others. Taking a closer look at real-world democracies that practice non-secret voting may at the very least contribute to a better understanding of why, under which conditions, and in which institutional form secret voting performs well and what democratic price we have to pay to enjoy its advantages.

Open Research Badge

This article has earned Open Data Badge. Data is available at https://dataverse.harvard.edu/dataset.xhtml?persistentId = doi:10.7910/DVN/VGXENY

Data Availability Statement

The data that support the findings of this study are openly available in the Harvard Dataverse at https://doi.org/10.7910/DVN/VGXENY, UNF:6:Fw2CDn0cOUiUSx54rorO5A== [fileUNF].

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Supporting Information

Additional Supporting Information may be found in the online version of this article:
Supplementary Material

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Online Appendix

Democracy Beyond Secrecy:

Assessing the Promises and Pitfalls of Collective Voting

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Swiss Political Science Review, 20 October 2020

Table A1: Sample description and comparison to real world

Variable	Survey Sample	Real-world data for the canton of Glarus
Observations/Size	830 respondents eligible to vote in Glarus completed the survey	About 40'000 inhabitants, 26'307 voters (June 2016)
Participation at the *Landsgemeinde*	62.8% say they attended the Landsgemeinde of 2015	Ca. 9% turnout.
Participation at the communal assembly	23.1% say the attended the last communal assembly	Participation rates in the assemblies preceding the survey were between 3 and 4%.
Participation at federal referendums	Q: Out of 10 referendums per year, how many do you usually attend? Mean = 8.3	Average turnout 2014–16 (10 referendum dates): 37%. At the Swiss level, Selects (2015) reports a mean participation of 5.8.
Gender	56.9% men, 43.1% women	Among permanent residents: 51% men, 49% women
Age	16–25 years old: 11.7%, 26–35: 18.3%, 36–45: 14.2%, 46–55: 20.1%, 56–65: 21.3%; 66+: 14.5%	Residents by age group (excl. under 16 years-olds): 16–25 years: 14%, 26–35: 16%, 36–45: 15%, 46–55: 18%, 56–65: 16%; 66+: 21%
Income	Net household income per month: 9.0% below 4'000 CHF, 42.3% 4–8'000, 29.2% 8–12'000, 12.6% 12–16'000, 6.9% 16'000+	Mean taxable income per month (2013): 5'900 CHF
Education	Mandatory school degree or no qualification: 4%; secondary school degree: 46.6%; tertiary school degree: 49.4%	Among the electorate: Mandatory school degree or no qualification: 17%; secondary school degree: 57%; tertiary school degree: 25%
Municipality of residency	36.7% Glarus city, 38.3% Glarus North, 25.0% Glarus South	Among the electorate: 31% Glarus city, 42% Glarus North, 27% Glarus South
Political ideology	Self-placement on left-right continuum (0=far left, 10=far right): 22.1% left (0–3), 45.6% centre (4–6), 32.3% right (7–10)	Vote shares 2014 elections for cantonal parliament: 22% left (Socialists & Greens), 49% centre (Liberals, Christian-Democrats and others), 29% right (Swiss People's Party/SVP)
Work	75.1% working part- or full-time, 24.9% not-working	OECD employment quota (15–64 years-olds): 84%
Party membership	24.5% are members of a political party	Swiss-wide: 6%; Glarus: 9% of Swiss citizens (both estimated)
Public office	11.7% hold a public office at cantonal or local level (court, government, or parliament)	0.6% (158 elected offices for an electorate of 26'000, as of June 2016)
Internal efficacy	Q: On a scale from 1 (not at all) to 10 (very well), how well can	Selects (2015) contains no comparable variable, but

Variable	Survey Sample	Real-world data for the canton of Glarus
	you understand important political issues? Mean = 7.3	Stephenson et al. (2018) asked: "Sometimes politics and government seem so complicated that a person like me can't really understand what's going on." In Switzerland, 49% (strongly) disagreed.
Political interest	Mean political interest (1=not at all, 5=very much): 3.8 - rather/very interested: 63.5% - not (at all) interested: 11.0% - neither/nor: 25.6%	Switzerland, 2015 post-electoral survey: 68.3% said they were rather or very interested in politics; 25.8% rather not and 5.5% not at all (Selects 2015)
Knowledge	Number of correct answers to 3 knowledge questions related to cantonal politics: 0 (0.4%), 1 (7.9%), 2 (28.5%), all 3 (63.2%)	Switzerland, 2015 post-electoral survey: out of 4 knowledge questions, 1.7% answered none correctly, 10% one, 24.8% two, and 62.3% three or four (Selects 2015)

Sources: own data (survey), Federal Office for Statistics (population, age, gender, income, education, employment, federal referendum turnout), websites of the Canton of Glarus and the three municipalities (party vote shares, number of public offices and communal assembly turnout), Schaub & Leuzinger (2018; on Landsgemeinde turnout), Linder & Mueller (2017, 126) and Schaub & Dlabac (2012; both for party membership); Stephenson, Laura; Blais, André; Bol, Damien; and Kostelka, Filip, 2017, "Making Electoral Democracy Work", https://doi.org/10.7910/DVN/RR0NNQ, Harvard Dataverse, V2; Selects (2015): Swiss Electoral Studies. Post-election survey for the Swiss parliamentary elections 2015, at https://forsbase.unil.ch/project/study-public-overview/15433/0/ [29 May 2020].

Table A2: Variable description

Variable	Operationalisation (*German question*)	Descriptives
Social Pressure at the *Landsgemeinde* (*N=710*)	One sometimes hears – in the framework of the *Landsgemeinde* or of voting at the ballot – that people are put under pressure by someone to vote in a particular way. Has this ever happened to you … at the *Landsgemeinde*? (*Bei Landsgemeindeabstimmungen, aber auch bei Urnenabstimmungen hört man manchmal, dass jemand von einer anderen Person unter Druck gesetzt worden sei, auf eine bestimmte Art zu stimmen. Fühlten Sie sich auch schon unter Druck gesetzt ... an der Landsgemeinde?*) (0) No; (1) Yes	(0) 92.7% (1) 7.3%
Social pressure at the ballot (N=708)	… at the ballot? (*... an der Urne?*) (0) No; (1) Yes	(0) 95.8% (1) 4.2%
Abstaining from the *Landsgemeinde* (N=643)	How many of the past five Landsgemeinden did you attend (2011–15)? Coding has been reversed. (0) Attended all; (1) Abstained once; (2) Abstained twice; (3) Abstained three times; (4) Abstained four times; (5) Abstained from all five assemblies.	(0) 49.5% (1) 16.5% (2) 15.2% (3) 9.6% (4) 6.1% (5) 3.1%
Abstaining from the ballot (N=703)	Out of ten voting ballots, how often do you usually participate? Coding has been reversed and ranges from (0) Attended all to (10) Abstained all.	Mean: 1.61 SD: 2.47 Min: 0 Max: 10
Observing others at the *Landsgemeinde* (N=704)	Seeing how others vote can be helpful to form one's own opinion. Have you ever first checked how others vote before raising your hand yourself? (*Dass man an einer Versammlung schauen kann, wie andere Leute abstimmen, kann einem auch dabei helfen, seinen eigenen Entscheid zu festigen. Wie ist das bei Ihnen: Kommt es manchmal vor, dass Sie an der Landsgemeinde oder an der Gemeindeversammlung zuerst schauen, wie andere Leute stimmen, bevor Sie selbst die Hand hochhalten?*) (0) No, never; (1) Yes, I already did once / I do sometimes / I always do that	(0) 74.7% (1) 25.3%
Been approached by others who observed one's vote (N=710)	Have you ever been approached by fellow voters who observed how you voted? How did you experience this encounter? (*Ist es schon vorgekommen, dass jemand, der an der Landsgemeinde gesehen hat, wie Sie gestimmt haben, Sie später darauf angesprochen hat? Wie empfanden Sie es, auf Ihr Abstimmungsverhalten angesprochen zu werden?*)	(0) 63.8% (1) 3.1% (2) 6.8% (3) 26.3%

Variable	Operationalisation (*German question*)	Descriptives
	(0) Have never been approached or no answer; (1) negative experience; (2) neutral experience; (3) positive experience.	
Gender (N=710)	(0) Male; (1) Female	(0) 59.4% (1) 40.6%
Age (N=710)	Age in years	Mean: 48.13 SD: 15.77 Min: 16 Max: 85
Municipality (N=710)	Place of residence: (1) Municipality of Glarus (2) Municipality of Glarus North (3) Municipality of Glarus South	(1) 37.6% (2) 375% (3) 24.9%
Income (N=710)	Net household income per month: (1) below 4,000 CHF (2) 4,001–8,000 CHF (3) 8,001–12,000 CHF (4) 12,001–16,000 CHF (5) more than 16,000 CHF	(1) 8.5% (2) 42.3% (3) 29.6% (4) 13.0% (5) 6.8%
Education (N=710)	Highest educational qualification: (1) Mandatory school or no qualification (2) Apprenticeship (3) High school (*Matura*) or primary school teacher (4) Higher professional training (5) Higher education (*Höhere Fachschule*) (6) Tertiary education (university or *Fachhochschule*)	(1) 2.7% (2) 35.1% (3) 11.3% (4) 15.5% (5) 10.4% (6) 25.1%
Political ideology (N=693)	Recode of original scaling "On a scale from (0) left to (10) right, where would you position yourself?" (1) Left (scale 0-3); (2) moderate (scale 4-6); (3) right (scale 7-10)	(1) 21.9% (2) 45.6% (3) 32.5%
Party member (N=710)	Membership in a political party? (0) No; (1) Yes.	(0) 73.4% (1) 26.6%
Public office (N=704)	Office-holder at the cantonal or local level (government, Parliament, court member)? (0) No; (1) Yes.	(0) 87.6% (1) 12.4%
Political interest (N=701)	On a scale from 1 (not interested at all) to 5 (very interested), how interested are you in politics?	(1) 1.0% (2) 9.0% (3) 25.4% (4) 42.7% (5) 22.0%
Knowledge (N=710)	Number of correct answers to three knowledge questions related to the politics of Canton Glarus.	(0+1) 7.2% (2) 26.9% (3) 65.9%
Internal efficacy (N=704)	On a scale from 1 (not at all) to 10 (very well), how well can you understand important political issues?	Mean: 7.41 SD: 1.91 Min: 1

Variable	Operationalisation (*German question*)	Descriptives
		Max: 10
Social network (N=703)	Number of friends and family members living in the canton of Glarus: (1) None; (2) 1–5; (3) 6–10; (4) 11–20; (5) 21–30; (6) 31–40; (7) 41+	(1) 0.9% (2) 10.8% (3) 12.1% (4) 18.1% (5) 16.6% (6) 6.0% (7) 35.6%

Notes: The N=710 cases included in the first model in Table 2 serve as baseline cases for the calculation of the univariate statistics. If the sample size differs from this due to additional missings on other variables not included in the first model, we note the exact N of cases used to calculate the statistics.

Table A3: Determinants of social pressure (full model)

	Landsgemeinde Full Model	Ballot Box Full Model
Female	0.157	-0.107
	(0.324)	(0.410)
Age in years	-0.026*	-0.035*
	(0.011)	(0.014)
Household income	0.039	0.377*
	(0.152)	(0.179)
Education	0.007	-0.223+
	(0.099)	(0.129)
Glarus	Baseline category	
Glarus South	0.209	0.055
	(0.376)	(0.499)
Glarus North	0.015	0.211
	(0.353)	(0.433)
Left ideology	0.308	-0.042
	(0.444)	(0.618)
Moderate ideology	Baseline category	
Right ideology	0.619+	0.005
	(0.369)	(0.486)
Political interest	-0.148	-0.278
	(0.207)	(0.254)
Political knowledge	0.108	-0.129
	(0.264)	(0.314)
Internal efficacy	-0.120	-0.049
	(0.099)	(0.119)
Social network	-0.037	0.091
	(0.086)	(0.114)
Party member	0.563	0.476
	(0.373)	(0.480)
Public office holder	0.376	0.080
	(0.441)	(0.636)
Constant	-0.574	-0.177
	(1.149)	(1.395)
N	673	680

Note: Logistic regression with Penalized Maximum Likelihood Estimation in Stata (firthlogit). Standard errors in parentheses. $+p<0.1$, $*p<0.05$, $**p<0.01$, $***p<0.001$.

Table A4: Determinants of abstention (full model)

	Landsgemeinde Full Model	Ballot Box Full Model
Female	0.066	-0.001
	(0.104)	(0.138)
Age in years	-0.008*	-0.023***
	(0.003)	(0.004)
Household income	-0.026	0.043
	(0.052)	(0.067)
Education	-0.040	-0.024
	(0.032)	(0.043)
Glarus	Baseline category	
Glarus South	0.139	-0.265
	(0.125)	(0.164)
Glarus North	0.205$^+$	-0.099
	(0.115)	(0.146)
Left ideology	0.180	-0.053
	(0.148)	(0.200)
Moderate ideology	Baseline category	
Right ideology	0.292*	-0.711***
	(0.137)	(0.199)
Political interest	-0.194**	-0.387***
	(0.065)	(0.085)
Political knowledge	-0.170*	0.090
	(0.077)	(0.108)
Internal efficacy	-0.062*	-0.094*
	(0.031)	(0.043)
Social network	-0.090**	0.038
	(0.028)	(0.037)
Party member	-0.583***	-0.028
	(0.144)	(0.171)
Public office holder	-0.740***	-0.141
	(0.213)	(0.220)
Constant	2.765***	3.304***
	(0.379)	(0.495)
lnalpha	-0.744***	0.529***
	(0.204)	(0.108)
N	624	679

Note: Negative binomial regressions estimated in Stata. Standard errors in parentheses. $+p<0.1$, $^*p<0.05$, $^{**}p<0.01$, $^{***}p<0.001$.

Table A5: Determinants of cue-taking (full model)

	Landsgemeinde Full model
Female	0.270
	(0.205)
Age in years	-0.031***
	(0.007)
Household income	0.046
	(0.101)
Education	-0.068
	(0.063)
Glarus South (ref. Glarus)	0.026
	(0.244)
Glarus North (ref. Glarus)	-0.072
	(0.223)
Left ideology (ref. moderate)	0.562*
	(0.270)
Right ideology (ref. moderate)	-0.767*
	(0.308)
Political interest	0.015
	(0.134)
Political knowledge	-0.303+
	(0.155)
Internal efficacy	-0.143*
	(0.063)
Social network	-0.096+
	(0.054)
Party member	0.438+
	(0.248)
Public office holder	-0.647+
	(0.358)
Constant	2.746***
	(0.738)
N	676

Note: Logistic regression models estimated in Stata. Standard errors in parentheses. +$p<0.1$, *$p<0.05$, **$p<0.01$, ***$p<0.001$.

Table A6.1: Distribution of experiencing social pressure at the Landsgemeinde

	No weights	Gender weight	Age weight	Municipality weight	Education weight	Combined weight
Yes, always	0.12% (N=1)	0.11%	0.12%	0.13%	0.15%	0.11%
Yes, often	0.85% (N=7)	0.94%	0.88%	0.85%	0.75%	0.74%
Yes but only rarely	6.1% (N=50)	6.1%	6.4%	6.1%	6.3%	6.4%
No, never	92.9% (N=763)	92.9%	92.6%	92.9%	92.8%	92.8%

Note: The introduced post-stratification weights are as follows: gender: 50% female, 50% male. Age: 16-25: 14%; 26-35: 16%; 36-45: 15%; 46-55: 18%; 56-65: 16%; 66+: 21%. Municipality: Glarus: 30.1%; Glarus North: 43.1%; Glarus South: 26.7%. Education: Mandatory school degree or no qualification: 17%, secondary school degree: 57%, tertiary school degree: 25%. For the combined weight including all four indicators, an iterative proportional fitting algorithm was implemented (ipfweight in Stata).

Table A6.2: Distribution of experiencing social pressure at the ballot

	No weights	Gender weight	Age weight	Municipality weight	Education weight	Combined weight
Yes, always	0.24% (N=2)	0.21%	0.20%	0.26%	0.3%	0.26%
Yes, often	0.60% (N=5)	0.64%	0.58%	0.64%	0.58%	0.57%
Yes but only rarely	3.84% (N=32)	3.55%	3.71%	3.57%	3.43%	3.29%
No, never	95.3% (N=794)	95.6%	95.5%	95.5%	95.7%	95.9%

Note: For the implementation of the post-stratification weights, see note to Table A6.1.

Table A7.1 Socio-economic determinants of abstention from the Landsgemeinde (including various weights)

	No weights	Gender weight	Age weight	Municipality weight	Education weight	Combined weight
Female	0.093[+]	0.094[*]	0.081[*]	0.097[*]	0.058	0.087[+]
	(0.049)	(0.042)	(0.041)	(0.042)	(0.048)	(0.049)
Age in years	-0.006[***]	-0.006[***]	-0.005[***]	-0.006[***]	-0.007[***]	-0.006[***]
	(0.002)	(0.001)	(0.001)	(0.001)	(0.002)	(0.001)
Income	-0.035	-0.034	-0.034	-0.030	-0.042[+]	-0.044[+]
	(0.026)	(0.022)	(0.021)	(0.023)	(0.023)	(0.026)
Education	-0.038[*]	-0.037[**]	-0.041[**]	-0.041[**]	-0.060[**]	-0.050[**]
	(0.016)	(0.014)	(0.014)	(0.014)	(0.018)	(0.017)
Constant	-0.086	-0.095	-0.084	-0.084	0.097	0.013
	(0.126)	(0.102)	(0.099)	(0.103)	(0.094)	(0.109)

N=651. Negative binomial regressions estimated with the glm-command in Stata. For the implementation of the post-stratification weights, see note to Table A6.1

Table A7.2 Socio-economic determinants of abstention from the ballot (including various weights)

	No weights	Gender weight	Age weight	Municipality weight	Education weight	Combined weight
Female	0.143[***]	0.142[***]	0.126[**]	0.152[***]	0.163[**]	0.179[***]
	(0.037)	(0.039)	(0.040)	(0.040)	(0.055)	(0.051)
Age in years	-0.008[***]	-0.009[***]	-0.009[***]	-0.009[***]	-0.007[***]	-0.008[***]
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Income	-0.004	-0.006	-0.005	-0.006	-0.002	-0.005
	(0.016)	(0.015)	(0.017)	(0.016)	(0.018)	(0.019)
Education	-0.022[*]	-0.024[*]	-0.018	-0.023[*]	0.000	-0.006
	(0.011)	(0.011)	(0.012)	(0.011)	(0.013)	(0.013)
Constant	-0.058	-0.041	-0.065	-0.049	-0.261	-0.187
	(0.089)	(0.087)	(0.092)	(0.090)	(0.134)	(0.117)

N=718. Negative binomial regressions estimated with the glm-command in Stata. For the implementation of the post-stratification weights, see note to Table A6.1

Table A8: Distribution of cue-taking at the Landsgemeinde

	No weights	Gender weight	Age weight	Municipality weight	Education weight	Combined weight
Yes, always	0.12% (N=1)	0.11%	0.09%	0.13%	0.15%	0.11%
Yes, often	1.33% (N=11)	1.43%	1.49%	1.35%	1.96%	1.56%
Yes but only rarely	24.75% (N=205)	25.31%	24.42%	24.85%	27.77%	26.76%
No, never	73.8% (N=611)	73.2%	74%	73.67%	70.11%	71.58%

Note: For the implementation of the post-stratification weights, see note to Table A6.1

Table A9: Socio-economic determinants of cue-taking at the Landsgemeinde (including various weights)

	No weights	Gender weight	Age weight	Municipality weight	Education weight	Combined weight
Female	0.458*	0.461*	0.381*	0.467*	0.291	0.233
	(0.182)	(0.181)	(0.184)	(0.183)	(0.238)	(0.230)
Age in years	-0.032***	-0.033***	-0.034***	-0.034***	-0.038***	-0.034***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.008)	(0.008)
Income	-0.005	0.001	-0.050	-0.011	-0.140	-0.138
	(0.092)	(0.093)	(0.095)	(0.091)	(0.122)	(0.109)
Education	-0.071	-0.065	-0.087	-0.081	-0.050	-0.045
	(0.056)	(0.057)	(0.059)	(0.057)	(0.077)	(0.074)
Constant	0.626	0.594	0.941	0.773	1.231	1.020
	(0.485)	(0.506)	(0.500)	(0.498)	(0.638)	(0.584)

N=715. Logit regressions estimated with the glm-command in Stata. For the implementation of the post-stratification weights, see note to Table A6.1

Table A10: Distribution of experience when approached by others who did not disclose their voting behavior

|	No weights	Gender weight	Age weight	Municipality weight	Education weight	Combined weight
Negative	12.0% (N=6)	13.06%	11.01%	13.01%	7.69%	9.07%
Neutral	18.0% (N=9)	18.26%	18.41%	16.98%	20.53%	23.19%
Positive	70.0% (N=35)	68.68%	70.58%	70.01%	71.78%	67.73%

Note: For the implementation of the post-stratification weights, see note to Table A6.1

Table A11: The importance to socialize by gender and age

|	Mean value	Frequencies	Wilcox rank-sum test
Men (N=472)	2.90	1: 13.8% 2: 23.9% 3: 30.1% 4: 22.9% 5: 9.3%	P= 0.0073
Women (N=357)	3.14	1: 9.2% 2: 23.0% 3: 28.9% 4: 22.4% 5: 16.5%	
People below the age of 35 (N=231)	3.19	1: 8.7% 2: 21.2% 3: 29.0% 4: 24.7% 5: 16.5%	P=0.0067
People aged 35 or older (N=599)	2.93	1: 13.0% 2: 24.4% 3: 29.7% 4: 22.0% 5: 10.9%	

Note: Respondents were asked how important it is for them to meet old friend for their decision to attend the Landsgemeinde. They could provide their answers on a five-point scale: (1) not important (2) rather unimportant, (3) neither nor, (4) rather important, (5) very important.

Figure A1: Propensity to attend the *Landsgemeinde* by different levels of income
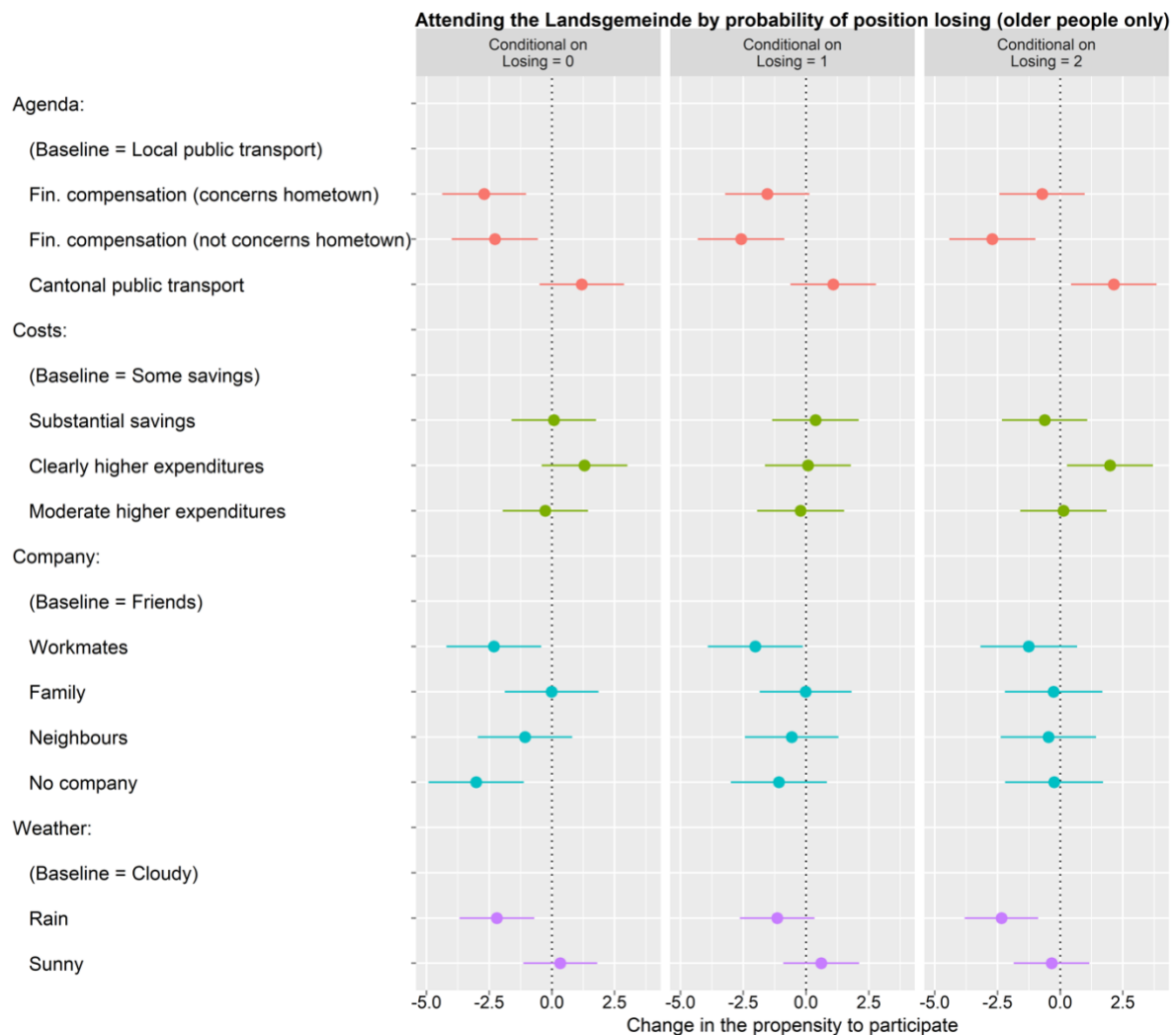

Attending the Landsgemeinde by income
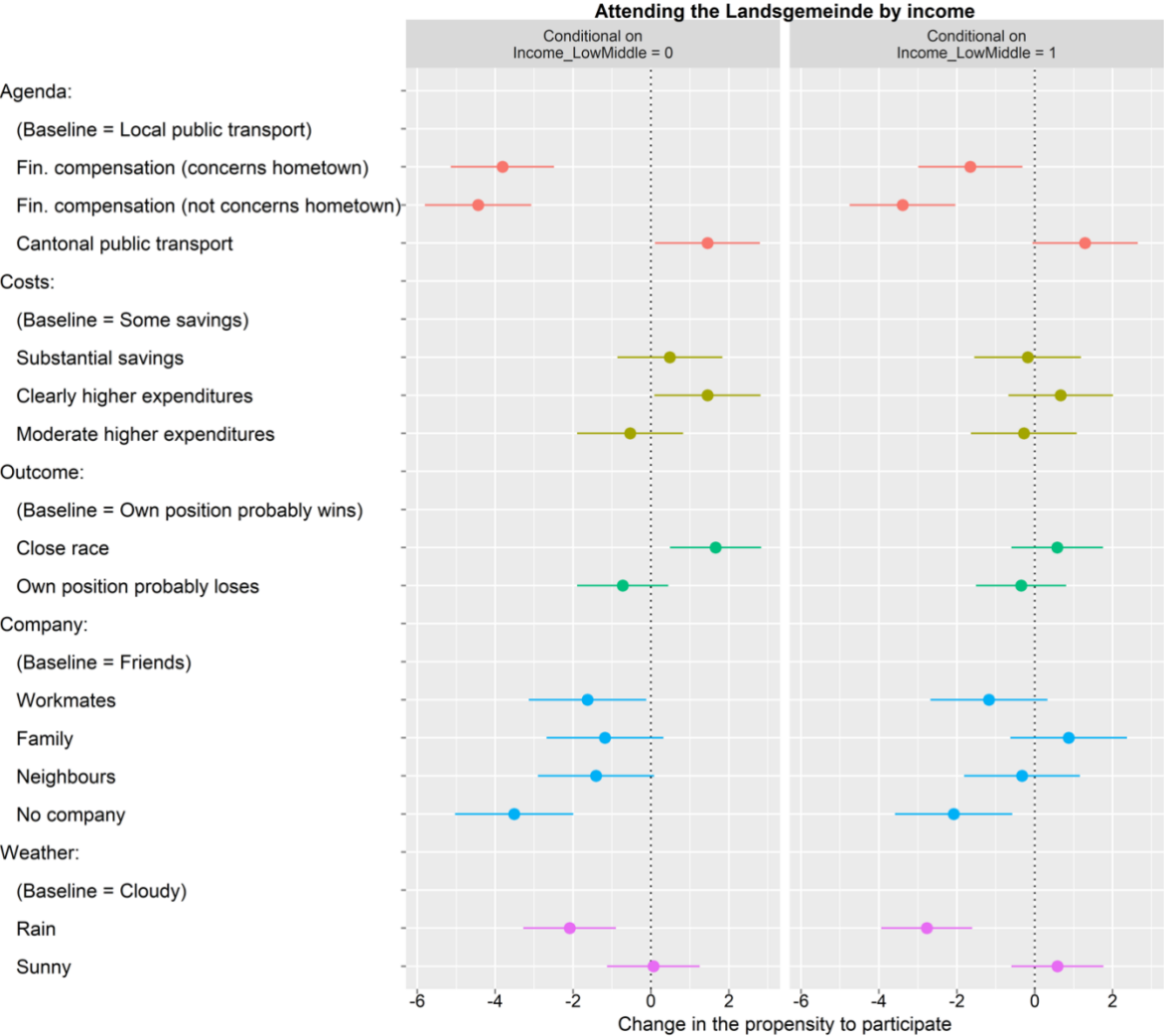
Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 762, N observations = 7619. Note that each respondent was asked to assess 10 Landsgemeinde situations. Income_LowMiddle=0: Net household income per month CHF 8'001 or more. Income_LowMiddle=1: Net household income per month CHF 8'000 or less.

Figure A2: Propensity to attend the *Landsgemeinde* by different levels of education
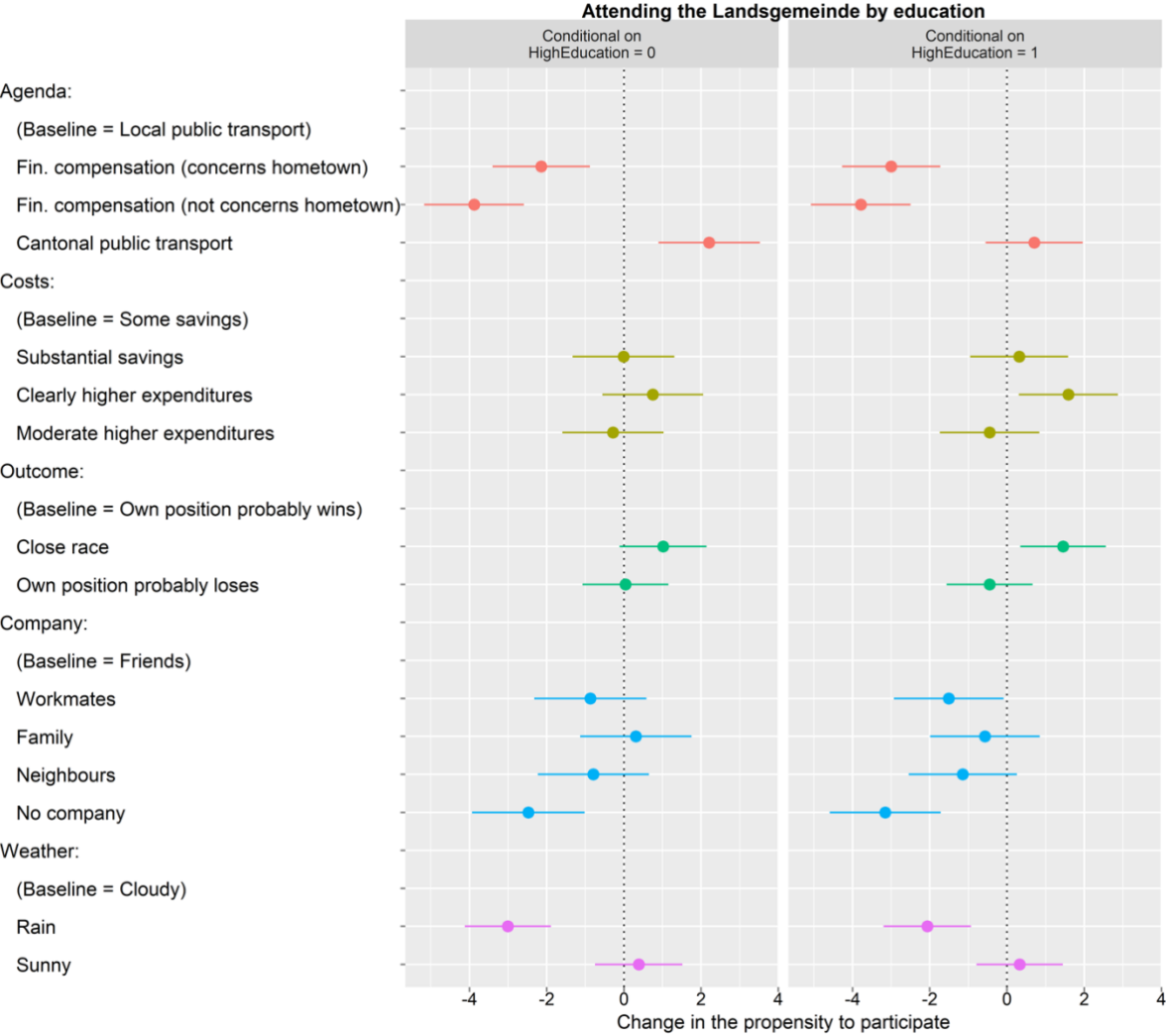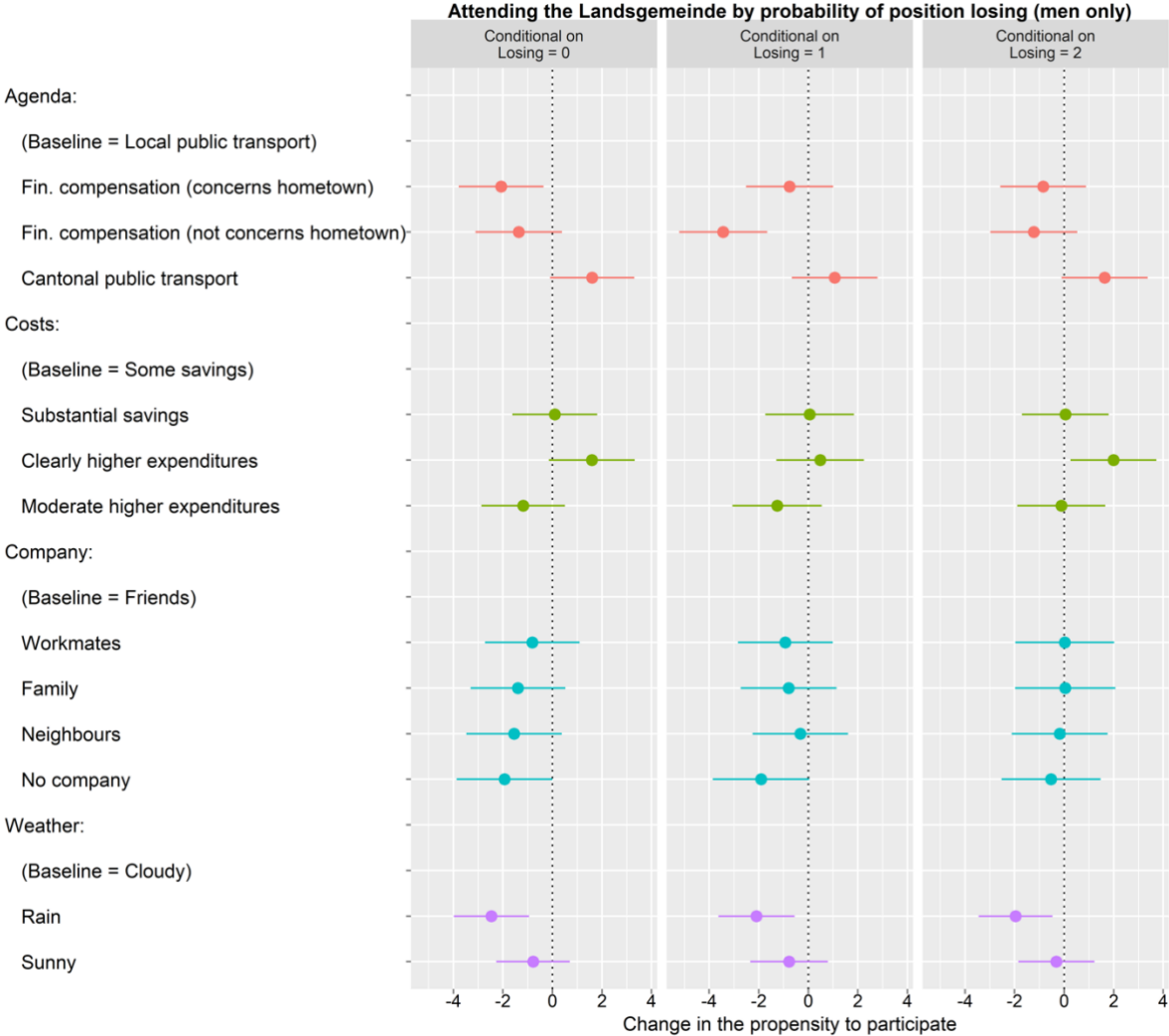

Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 850, N observations = 8500. Note that each respondent was asked to assess 10 Landsgemeinde situations. HighEducation=0: No higher professional training or education (see Table A2, code 1 to 3). HighEducation=1: Higher professional training or education (see Table A, code 4 to 6).

Figure A3: Propensity to attend the *Landsgemeinde* by expected outcome (older people only)

Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 635, N observations = 6350. Only people of the age of 35 or more considered. Note that each respondent was asked to assess 10 Landsgemeinde situations. "conditional on losing 0" = defeat expected; 1 = close race expected; 2 = expected to win.

Figure A4: Propensity to attend the *Landsgemeinde* by expected outcome (men only)

Note: Average Marginal Component Effect (mean and 95% confidence interval). N respondents = 503, N observations = 5029. Only men considered. The effect of "no company" is only significant at a level of p>0.1 when expected to lose or when the vote is expected to be tight. Note that each respondent was asked to assess 10 Landsgemeinde situations. "conditional on losing 0" = defeat expected; 1 = close race expected; 2 = expected to win.