

Measuring Liberal and Radical Dimensions of Democracy in Subnational Political Systems

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Abstract: Since existing measures of democracy are based solely on a liberal conceptualization of representative democracy, they overlook another fundamental tradition: that of radical democracy, which strives for direct participation of all citizens in the public debate and in political decision-making. The quality of democracy of political systems with pronounced radical democratic institutions and culture has therefore not been fully understood so far. Drawing from classical liberal and radical views on what democratic institutions can or should accomplish, we construct two empirically measurable models of democracy. Being particularly interested in assessing democracy in the Swiss cantons, we present a multidimensional measurement instrument capable of differentiating subnational democratic systems along liberal and radical dimensions of democracy. In order to demonstrate the empirical relevance of the proposed measures, this paper concludes with a comparative analysis of the influencing factors of fiscal policy in the Swiss cantons. While radical democracy in its classical participatory form has a restricting effect on taxes, cantons with pronounced liberal dimensions turn out to be fiscally more redistributive.

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1. Introduction

While former indices of democracy have proven valuable for distinguishing democracies from autocracies, more recent measures aim at assessing the gradual differences in the quality of established democracies. However, there have been no efforts so far to measure the quality of democracy at the subnational level, notwithstanding the acknowledged advantages the comparison of subnational units in federal countries offers for causal inferences (cf. Bühlmann et al. 2009).

As the application of the Vanhanen Index to the German Länder and the Swiss cantons (Kropp et al. 2008) suggests, existing measures seem inappropriate for the subnational level. We therefore advocate the development of democracy indices which are tailored to the specific features of the subnational level (Bühlmann et al. 2009). This paper deduces an exemplary measurement concept for the case of the Swiss cantons. The Swiss cantons are of particular interest as they constitute distinct democracies with highly varying institutional designs, yet moving within the bounds of a common federal constitution and sharing similar socioeconomic conditions (Vatter 2002).

A central step for developing a democracy index for the subnational level is to specify the object of reference – ‚quality of democracy’. The meaning of democracy has been highly debated in the entire history of democratic thought (cf. Held 2006: 1-2; Schmidt 2010: 19-26). The differing conceptions have led to a tremendous variety of democratic theories (cf. Schmidt 2010: 289). However, most common measures of democracy restrict themselves to a minimal concept of a *liberal democracy*, measuring the warranty of freedom rights, separation of powers and representation through elections (Munck and Verkuilen 2002: 11; Pickel and Pickel 2006: 154; Bühlmann et al. 2008a: 116-117). Such a limitation appears problematic, particularly with regard to referendum democracies like Switzerland (Barber 1988: 32-34); all the more so if dealing with subnational units with even more extended participatory rights. We therefore propose to consider a second broad stream of democratic thinking besides the liberal model of democracy: the *radical model of democracy* (Held 2006: 4-5). This tradition, subsuming participatory and important deliberative theories, strives for extensive and direct participation of all people in the formation of the public opinion and in political decision-making (Cohen and Fung 2004).

We thus pursue a dual measure for capturing the liberal and the radical qualities of democracy, as in our view it does more justice to the varieties of democratic theory and

democratic practice. Besides, the tension between the liberal emphasis on representation and the radical preference for direct democracy is well in line with our guiding hypothesis. We hypothesize that this tension is meaningful in the context of the Swiss cantons in two ways: On the one hand for the historical and cultural contrast between the Latin and the German speaking cantons (cf. Kriesi and Wisler 1996; Stutzer 1999; Trechsel 2000: 23; Vatter 2002: 271, 319, 350, 418) and on the other hand for the antagonism present – by definition – in the institutions of every semi-direct democracy and thus of every Swiss canton.

We base our measurement concept on three central dimensions of democracy for each tradition. These dimensions are distilled from liberal and radical democratic theory respectively in chapters 2 and 3. For each dimension we also deduce the related components which in turn are composed of several subcomponents. In chapter 4 we bring these liberal and radical dimensions together into a multidimensional measurement instrument of democratic qualities. The analysis in chapter 5 illustrates our results for selected cantons and investigates the effects of democratic dimensions on cantonal fiscal policies. In chapter 6 we finally offer a short conclusion on the potential utility of our democracy measures.

2. The Liberal Model of Democracy

The liberal model of democracy pursued here traces the tradition of protective¹ liberal democracy: We start with the liberal constitutionalism of Locke, go on to the separation of powers of Montesquieu and Madison, and end with direct responsibility of government towards the electors following Bentham, James Mill and John Stuart Mill. These three dimensions have become the central tenets of theoretical and empirical research on democracy. The *liberal constitutionalism* is being studied in terms of freedom rights and aspects of the rule of law; with regard to the separation of powers, *horizontal accountability* is the central object of reference; and the control of representatives by voters is being discussed under the topic of *electoral accountability*. In the next three sections we will anchor these three dimensions in the liberal theory of democracy and briefly elaborate on the components of each dimension.

¹ For the purpose of a clearer distinction from the radical model of democracy, we do not draw on the theoretical stream of “developmental liberal democracy” which understands democracy as a school for promoting individual civic competences (for this distinction cf. Held 2006).

2.1. Liberal Constitutionalism

A starting point of the liberal tradition of democracy can be located in the concept of constitutionalism developed by Locke (1963 [1689]), meaning that state powers need to be legally circumscribed in order to secure individual freedom. In the following, we briefly describe the concepts of individual freedom and rule of law.

Individual Freedom. Throughout the liberal tradition of democracy we find calls for a whole set of individual *freedom rights*. In his contractual theory, Locke (1963 [1689]) emanated from a natural right to life, liberty and estate. Bentham (1960 [1776], 1843 [1831]) and James Mill (1937 [1820]) justified freedoms of speech, press and association as remedy for corruption, whereas John Stuart Mill (1982 [1859]) stressed the right to an individual concept of life. Freedom rights, however, need not only be formally adopted but also effectively warranted (Beetham 2004). Freedom rights can only be secured to the extent that the rights and rules of democratic decision-making are also *followed and respected by the individual citizens*. Individual freedom also entails the liberal claim for a *limited scope of the state*. Bentham (1960 [1776]) and James Mill (1937 [1820]) provided for the classical liberal argument for the restriction of state regulation: Free transactions among self-interested individuals promote the utility of all citizens best.

Rule of Law. Locke insisted on legal commitment of the authority, because “where law ends, tyranny begins” (1963 [1689], ch. 18). Montesquieu (1994 [1748]) pleaded for a positive system of laws setting inviolable limits to state action in order to depersonalize the state’s power structure and to limit arbitrariness and corruption. By making reference to inviolable natural laws, Locke and Montesquieu not only implied a *formal*, but also a *substantive supremacy of the law*. In liberal democracies, human rights and basic freedom rights are inviolable and must be put out of reach of majority decisions (O’Donnell 2004; Morlino 2004). Otherwise, democracies could turn into “tyrannies of the majority” (Tocqueville 2006 [1835]). Montesquieu (1994 [1748]) further introduced the principle of *equality before the law* into democratic theory. Rule of law demands equal access to the courts and equal treatment by the law (Beetham 2004).

2.2. Horizontal Accountability

Early on, conceptions of liberal democracy have been coupled to the idea of separation of powers in order to control the government and to ensure that the latter actually sticks to the rules of liberal constitutionalism. Contemporary research on democracy discusses these issues under the notion of horizontal accountability, thereby referring to a “network of relatively

autonomous powers (i.e. other institutions) that can call into question, and eventually punish, improper ways of discharging the responsibilities of a given official” (O’Donnell 1994: 61). Accountability encompasses aspects of information, justification and sanction (Schedler 1999a: 14-18).

Checks and Balances. According to Locke (1963 [1689]), only the separation of power between the executive and the legislative branch can secure the subordination of both powers to the law and avoid that they pursue own interests. Montesquieu (1994 [1748]) argued for a mixed constitution coupling the monarchic government to an institutional system, where constitutional powers must dispose of differing legal competences. These ‘checks and balances’ later formed a core piece in the Federalist Papers (Hamilton et al. 1788: Art. 47-51). Contemporary research on democracy stresses the need to restrain the executive power through a *strong parliament* (Beetham and Boyle 1995: 66-74) and a *strong opposition* (Altman and Pérez-Liñan 2002).

Judicial Independence. According to Montesquieu (1994 [1748]: book XI, ch. 6), an independent judiciary is even more important for securing individual rights and preventing repression. Madison (Hamilton et al. 1788: Art. 47-51) called for a professional, politically independent court, deeming elections of judges and term limits to be inappropriate.

Independent Controlling Instances. The abuse of government power may be further contained, if rule-making itself becomes the object of judiciary revision, in terms of a *constitutional review* (Hayek 1960). Furthermore, in order to prevent corruption and arbitrariness, the administration needs to be controlled through an *independent administrative court*. Other instances are audit agencies, counter corruption commissions, or an ombudsman (Diamond and Morlino 2005: xxi). Such *agencies of protection* are intended to secure individual freedoms of the citizens against the abuse of power (Beetham 2004: 68, 71).

2.3. Electoral Accountability

For Locke (1963 [1689]: 308, 395), the state was a legal creation agreed on by the people, who conferred authority to the government for the purpose of pursuing the ends of the governed. According to Madison (Hamilton et al. 1788: no. 10), representation prevents the threat of a tyranny of the majority emanating from direct democracy: While people are driven by passions, representative institutions are the place for competent deliberation. The notion that government needs to be held *directly accountable* to the electorate was then introduced by the utilitarians. Secret and competitive elections are to ensure responsive law-making in

order to maximize the public good (Bentham 1843 [1831]: 47). Modern research on democracy treats this aspect of representation under the term of electoral accountability, understood as relations of accountability between rulers and voters (O'Donnell 2004).²

Periodic Free Elections by Secret Ballot. Periodic elections are understood as a sanctioning mechanism leading rational representatives to take the will of the electorate into account in order to be reelected. Secret ballot is required if electoral preferences are to be expressed without compulsion and fear (Dahl 1998; Beetham 2004).

Competition. Bartolini (1999, 2000) distinguishes several dimensions of electoral competition necessary for democratic accountability. By definition, democratic elections call for the dimension of contestability, that is, the real possibility to enter the race with other participants. Second, the *electoral vulnerability of incumbents* makes the threat of potential electoral sanctions more effective. Arguably, a party, a coalition, or an incumbent feels vulnerable to the extent that the last/preceding race was close. The threat to the incumbents also depends on the importance of the offer, i.e. the weight of an alternative party or coalition (cf. Altman and Pérez-Liñán 2002). A further dimension is *electoral availability*, i.e. the basic willingness of a voter to eventually modify her or his party choice.

Clarity of Responsibility. The evaluation of the incumbent government by the voters requires a clear attribution of responsibilities. Clarity of responsibility is undermined if the political system is characterized by a lack of voting cohesion within the governing party or by coalitions consisting of numerous parties (Powell and Whitten 1993: 399-400).

Relative Governmental Autonomy. Although relations of accountability between rulers and voters involve elections as sanctioning measure, they also presuppose a relative governmental autonomy once a government has been elected. In addition to the autonomy of the elected representatives from illegitimate interests (cf. Merkel 2004) and from other state levels, responsible government also involves independence from voters between elections (Pitkin 1967).

² Newer concepts of representation encompass descriptive representation and responsiveness (Pitkin 1967). We consider descriptive representation rather as a radical concern and treat it in chapter 3.3. Responsiveness, understood as disposition of the political system to act according to the wishes of the citizens, can be regarded as an outcome dimension of democratic quality (Diamond and Morlino 2004, 2005). As our democracy measures focus not on outcomes, but on the preceding democratic structures and processes, we do not directly account for responsiveness (cf. Bühlmann et al. 2008b: 7; Lauth 2004: 25).

3. The Radical Model of Democracy

The most important theoretical foundations of the radical model of democracy are the participatory and some of the deliberative theories of democracy, as they have been subsumed under the term of “radical democracy“ by Cohen and Fung (2004).³ However, predecessors of radical theories of democracy reach as far back as to the assembly democracy of ancient Athens, to Rousseau’s republicanism and to (neo-)marxist theories of democracy (cf. Held 2006: 5, 187). Within the radical tradition, too, three central dimensions of democracy can be discerned: *radical participation*, *public accountability*, and *inclusion*.

3.1. Radical Participation

From a radical democratic point of view, the citizens’ active involvement in politics and in the public life in general is crucial for the unfolding of their civic virtues and for their self-realization. Their individual political participation, thus, is valued for its own sake and even constitutes the main justification for a democratic system (Pateman 1970: 25, 43; see also Barber 1984: 117-162, 232; Macpherson 1977: 114-115). Radical theorists expect that the more competences and opportunities for serious involvement the citizens are granted, the more they will actually make use of them and participate. Hence the demands to institutionalize opportunities to participate which are as encompassing and diverse as possible (Pateman 1970; Barber 1984: 272).

Extended Electoral Rights for the Citizens. While radical democrats are skeptical towards the delegation of decision-making powers away from the citizens to representative bodies (Rousseau 1762: 235-239; Barber 1984: 145-147), they generally do acknowledge that a system of pure direct-democratic self-rule would be above the capacity of the citizens – hence the need for some delegation (e.g. Barber 1984: 267). In such cases, the citizens shall at least retain extensive powers to control and possibly sanction their delegates. Thus, members not only of the legislative, but also of the executive and of judicial bodies shall be elected in *direct popular elections*. To prevent those delegates from acting against the citizens’ will, the latter shall be granted *rights to recall* the former from office ahead of schedule.

Citizens’ Rights to Directly Decide on Issues. However, radical democrats maintain that the citizens need instruments to control the decisions on *concrete* issues directly, in a differentiated manner, and between elections; they must be conferred direct democratic rights

³ Fuchs (2007) and Schmidt (2010: 236-253) also describe participatory and deliberative theories as different branches of one common theoretical stream. See also Saward (2001) and Fung (2006).

to revise decisions by their delegates, and to set new topics on the agenda (Barber 1984: 281-289). It is only by this kind of direct participation that individuals turn into citizens (Barber 1984: 232) and a political system into a participatory democracy (Macpherson 1983: 132); only direct participation entails the immediate self-rule and the sovereignty of the people (cf. also Rousseau 1762). In addition to the most basic *rights of popular initiative and popular referendum*, more *refined direct-democratic rights* are also postulated.

Utilization of Direct-Democratic Rights. No matter how extensive the formal rights to direct participation in a democracy are, most of their value depends on the extent to which they are made use of. The participatory benefits of individual self-realization and of collective self-rule are supposedly realized to the extent that popular votes are actually held with some regularity.

Local Self-Rule. Real self-rule is most meaningful and can best be achieved in the domains on which individual citizens can exert the most direct influence and which concern them most directly: in their most proximate environment (Macpherson 1977: 108; Barber 1984: 267-273). That is why the extent of *constitutional, fiscal and perceived autonomy of the local municipalities* is seen to be of particular importance.

3.2. Public Accountability

From a radical point of view, the liberal instruments of horizontal and electoral accountability alone are not sufficient for ensuring maximal accountability and responsiveness of the representatives to the citizens; they have to be complemented by mechanisms of public accountability. Informal forms of participation and public discourse enable the society to continuously bring a broad specter of concerns into the political process, and to exert control and pressure on those governing (cf. Young 2000: 153, 173-177; Smulovitz and Peruzzotti 2000: 149, 151; Lauth 2004). Public accountability as conceptualized here also comprehends requirements needed to ensure that the citizens may exercise direct participatory rights in a thoughtful way.⁴

Transparency of Political Processes. One aspect which is central to the accountability of the rulers is the availability of information on the processes in the governmental institutions. The more transparent the debates and decisions in the parliament, the executive, and the courts are and the more actively the governmental institutions communicate about their activities, the better they fulfill their accountability duties toward the public and the more they facilitate a

⁴ In the view of some deliberative theorists (e.g. Fishkin 1991; Offe and Preuss 1991), direct participatory rights for the citizenry may even be counterproductive, if they do not come along with an arena for sufficient information, reflection, and deliberation.

serious both-way discourse with the citizenry (cf. Beetham 1994: 37; Diamond and Morlino 2004; Schmitter 2005).

Media. The public debate which is an essential part of functioning public accountability mechanisms, however, involves not only the relations between government and citizens, but also those among citizens themselves. Independent and *diversified media* provide an arena for public debate which allows as multifaceted voices as possible to be expressed and which avoids the exclusion of potential participants (cf. Cohen 1989: 22-23; Voltmer 2000). Additionally, the media may assume an own accountability function as ‘watchdogs’ or ‘fourth estate’ critically evaluating the actions of decision-makers (cf. Peruzzotti and Smulovitz 2006). The circumstances under which the media operate and the importance a democracy assigns to vivid media are, among else, mirrored by the *media rights*, such as the prohibition of censorship or the duty of the state to facilitate information diversity (cf. Beetham 1994: 39). However, the extent to which citizens effectively benefit from diverse media ultimately depends on the extent of their *media use*.

Extra-institutional Participation. Even though extra-institutional forms, such as demonstrations or strikes, in contrast to institutional participation, lack a legally defined sanctioning power, they are “far from ‘toothless’” in making manifest the preferences of the citizenry and holding those governing accountable (Smulovitz and Peruzzotti 2000: 151-152; Young 2001). Such forms of participation can unfold their power more unhamperedly if their free use is granted *constitutional protection*. But extra-institutional participation also materializes in a broader *participative culture* which is rooted in the individual citizens and in the civil society and the importance of which has often been stressed by radical democrats (Pateman 1970; Macpherson 1977: 98-114; Barber 1984: 264-266; cf. also Merkel 2004: 46-47). The higher the proportions of politically alert and interested citizens (cf. Fishkin 1991) and of members in civil society organizations are, the richer the public debate and the stronger the pressure on the representatives to act in an accountable way (Beetham 1994: 29-30; Young 2000: 153; Diamond and Morlino 2004: 25; Peruzzotti and Smulovitz 2006: 10-12).

3.3. Inclusion

Another central claim of radical democratic theories is the extension of the *demos* (Schmidt 2010: 236-241). Each person concerned by a future decision is regarded as equally qualified and legitimate to participate in the making of this decision (cf. Rousseau 1762; Barber 1984: 225-229; Dahl 1998: 62-78). The differences between the individuals and groups of a society are not regarded as a point against political equality and inclusion, but, on the contrary, as

diversity which benefits a rich public discourse and thereby the rationality of decisions (Dryzek 1990: 41-42; Young 2000: 81-120). Inclusion, in this view, enhances both the quality and the legitimacy of political decisions.

Equal Political Involvement. As the radical democratic claim for inclusion essentially rests on the assumption that all humans are fundamentally equal, it implies not only that those affected by a decision shall be included (cf. Goodin 2007), but that they shall all be equally included, no matter what their background is (Young 2000: 11; Cohen 1989: 22-23). Equal involvement certainly presupposes the broad assignment of equal political rights with the *universal right to vote* at its heart (cf. Wollstonecraft 2004 [1792]; Marx 1949 [1871]; Paxton et al. 2003). Beyond the formal assignment of equal political rights, radical democratic authors attach importance to the degree that *equal participation* independent from status or gender is effectively achieved (cf. Smith 2009: 20-22). Equal political involvement is facilitated if the state provides its citizens with a *minimal amount of resources* which allows all of them to engage in independent political activity. This embraces both material and immaterial resources such as civic education (cf. Barber 1984; Dahl 1998: 79-80).⁵

Inclusive Representation. To the extent that delegation of powers from citizens to elected bodies is necessary, inclusion also embraces the broad representation of different political and social groups in those bodies (e.g. Young 2000: 152). To begin with, this means that the representative organs should mirror the whole diversity of party preferences present in a society. In the context of the Swiss cantons, the unbiased *representation of parties in parliament* and the *inclusiveness of the governing coalitions* can be assessed. Besides, radical democrats also call for representation of the different population groups as defined by *social* criteria. They do so for essentially three⁶ reasons: First, the representation of social groups hints at the extent to which the democratic principle of political equality is actually realized in a society. Second, the inclusion even of marginal groups is seen as enriching the political discourse and enhancing the “social knowledge“ of a representative body (Young 2000). Third, if the representatives come from all sections of the population, this may lower the barriers for the communication of the citizens with them and thus enhance the receptiveness

⁵ What we are looking at here is *not* the equal distribution of resources, but only at whether all citizens are entitled to some minimal amount of publicly founded resources which can be regarded as necessary for engaging in independent political activity in the context of radical democratic theory (Rousseau 1762: 124-125; Pateman 1970: 22; cf. also Merkel 2004: 44-45).

⁶ Our conceptualization of the radical model of democracy does, in contrast, not adopt an argument which is put forth particularly by (neo-)marxists and which holds that features like gender or education largely determine an individuals' political preferences (e.g., Marx 1949 [1871]; cf. also Young 2000: 87-89, 147-148).

of the governmental institutions (Arato 2006). Institutionally, an inclusive representation is furthered by an *electoral system favorable to minorities* which, by a proportional design, raises low hurdles for minor groups to be elected (cf. Lijphart 2004; Arato 2006).

4. A Multidimensional Measurement Instrument

In the preceding sections, we deduced six dimensions of democracy from liberal and radical theories of democracy, respectively, and further concretized them in several components and subcomponents. Table 1 gives an overview of the dimensions with their components and subcomponents. In this section, we will sketch how we bring together these six dimensions into a measurement instrument for the quality of democracy. Our considerations are structured according to the three categories proposed by Munck and Verkuilen (2002), i.e. conceptualization, measurement, and aggregation.

The *conceptualization* of the quality of democracy we propose is innovative in that it takes into account the dimensions of the radical democratic tradition along with the established liberal dimensions. By basing the concept on a number of different dimensions, we obtain a multidimensional measurement instrument and thus follow a methodological suggestion by Pickel and Pickel (2006: 269; see also Bühlmann et al. 2008a; 2008b). Our approach enables us to capture the qualities of pronouncedly liberal *and* radical democracies in a differentiated way.

We understand the six dimensions as abstract democratic functions. The latter may be realized by concrete, formal and informal institutional arrangements which are fit to their respective cultural and political context.⁷ These institutions appear on the lower levels of the measurement instrument. The structuring of the dimensions into components and subcomponents makes this instrument hierarchical. By consistently and successively deducing each subunit from its respective upper level from the very stage of conceptualization, we accommodate the methodological critique on existent measures of democracy; furthermore, the dangers of redundancy and conflation were avoided by defining the components and subcomponents in a mutually exclusive way (cf. Munck and Verkuilen 2002: 12-14).

⁷ We draw on the functional research strategy which Lauth (2004) suggests for intercultural comparisons of democracies: universal democratic functions may be realized by diverse, context-specific “functional equivalents“.

Table 1: Dimensions, Components and Subcomponents of the Multidimensional Measurement Instrument

Liberal dimensions	Components	Subcomponents	Radical dimensions	Components	Subcomponents		
Liberal Constitutionalism	Individual freedom	Freedom rights	Participation	Extended electoral rights	Electoral rights		
		Property rights			Recall rights		
		Respect for rights and rules		Direct-democratic rights	Basic rights of popular initiative and popular referendum		
		Limited scope of the state			More refined direct-democratic rights		
	Rule of law	Supremacy of the law		Use of direct-democratic rights	Frequent direct-democratic votes		
		Equality before the law		Local self-rule	Financial and perceived local autonomy		
Protection of minorities		Constitutional local autonomy					
Horizontal Accountability	Strength of parliament versus government	Independence	Public Accountability	Transparency of political processes	Transparency of parliament and communication by authorities		
		Supervisory rights			Transparency of government and courts		
		Legislative competencies		Media	Media rights		
	Power sharing in parliament	Power sharing regulations			Media diversity		
		Strength of opposition in parliament			Media use		
	Judicial independence	Separation from government and parliament		Extra-institutional participation	Constitutional protection of extra-institutional participation rights		
		Personal independence			Participative culture		
		Professionalization					
		Organizational independence					
	Independent controlling instances	Administrative jurisdiction					
		Constitutional review					
		Agencies of protection					
Electoral Accountability	Free elections	Periodic free elections by secret ballot	Inclusion	Equal political involvement	Universal and equal right to vote		
	Electoral vulnerability of incumbents	Electoral vulnerability in government			Equal participation		
		Electoral vulnerability in parliament			Minimal amount of resources		
	Electoral availability	Willingness of modifying a party choice		Inclusive representation	Electoral system favorable to minorities		
	Clarity of responsibility	Government responsibility is clearly attributable			Representation of parties in parliament		
		Independence from the people between elections			Inclusiveness of the governing coalitions		
		Independence from specific interests			Proportional representation of socio-structural groups		
Relative governmental autonomy	Autonomy from other state levels						

While the subcomponents are much more concrete than the overarching dimensions, we still regard them as "latent variables" (cf. Bollen 1989: chapter 6; Treier and Jackman 2008) to be approximated by multiple indicators. Actual *measurement* was thus achieved by operationalizing each subcomponent through a number of quantifiable indicators (see Appendix for a list of all indicators used). In order to capture the fine variations in the quality of the single dimensions of democracy, not only formal institutions ('rules in form') were recorded, but also less formalized structural characteristics ('rules in use') of the cantonal democracies. In this context, it is important to note that there is some inherent trade-off between the two scientific objectives of differentiation and of parsimony. In our view, the goal to assess differences in the democratic qualities of well-established, culturally relatively close subnational democracies requires a rather fine-grained and complex instrument which also assesses to which degree and in which manner formal democratic institutions actually work in a given context (Bühlmann et al. 2008a: 117; 2009: 459).

Our approach can be exemplified by our operationalization of the dimension of public accountability for the context of the Swiss cantons: the respective indicators include the legal enactment of the general rule that any governmental documents are freely accessible to the public and the legal rules on information duties for the public authorities, but also an indicator measuring the extent to which the sessions of the executive, the legislative and the judiciary bodies are actually open to the public. The media system's contribution to a high-quality public accountability is measured, first, by the number and the spread of regional and local newspapers edited in a given canton and in a given year (media diversity); second, survey data are used to determine the cantonal levels of media use by the citizens; finally, an analysis of the relevant legal texts was conducted to measure the legal provisions for promoting information diversity and citizens' access to the media. The third component in the dimension of public accountability, i.e. extra-institutional participation, was assessed based on the constitutional guarantees of freedoms to demonstrate and to strike, and on survey data reporting citizens' membership rates in civil society organizations or their interest in politics.

These examples highlight that we relied on data of various kinds and from various sources (e.g., survey data and legal provisions). Such source variety, in our view, strengthens the validity of the results by reducing the danger of a systematic measurement bias (Munck and Verkuilen 2002: 15-16; Lauth 2004: 306-307). The same is true for the relatively high number of indicators: a total of 178 indicators have finally been included in our measurement instrument, thus ensuring that each subcomponent is measured by at least two indicators (see

Appendix). Initially, even 371 indicators were assigned to the theoretically derived subcomponents and then scrutinized for dimensionalities by factor analysis. As could be expected, not all indicators within the same subcomponent actually loaded on the same factor. Particularly, proxy indicators relying on constitutional declarations often contrasted with indicators capturing 'rules in use'. Due to the bias in data availability, it would be insensitive to rely on the factor on which the highest number of indicators load. Instead, we pre-assessed the validity and reliability of the indicators based on qualitative considerations. Indicators gained from a more thorough and more encompassing analysis of laws and practices were put at the center of the validation process, while indicators of more peripheral or symbolic nature were removed if necessary. In this way, 48 subcomponents were operationalized by a total of 178 indicators by calculating the respective factor-scores.⁸

It goes without saying that collecting the relevant data for this number of indicators required a large effort, all the more so because our data-set was constructed to cover all 26 cantons on a year-wise basis for 1979-2009. Partly, time series data could be drawn from secondary sources, but for many indicators primary data had to be collected. Coding of the primary data was conducted by defining exclusive coding categories. Where appropriate, dichotomous coding of indicators was avoided since even constitutional and legal provisions often exhibit gradual variation beyond the distinction 'absent vs. present' (cf. also Lauth 2004: 306).

Despite our efforts, it was not possible to find suitable data for all years of the research period. In these cases, we filled the gaps in the time series with extra- and interpolated data which we generated in two alternative ways: either we assigned the value documented for one year to the preceding and/or following years as well, thus creating periods with a constant value each; for other indicators, we relied on linear inter- and/or extrapolation, thus creating constant longitudinal trends. The choice which of these two inter-/extrapolation techniques was more appropriate was guided by careful substantive considerations for each specific indicator.⁹

⁸ We used SPSS and calculated the factor-scores by the regression method based on a principal components factor analysis. Six of the forty-eight subcomponents were further divided into sub-subcomponents, which then were treated as the latent variables.

⁹ Substantive considerations influenced data coding also for a limited number of indicators where the secondary literature and our case-specific knowledge made us doubt the validity of values gained by schematic quantitative measurement, mainly for the two small cantons of Appenzell Ausserrhoden and Appenzell Innerrhoden which are special cases in several respects. For example, party structures are very weakly institutionalized in Ausserrhoden and Innerrhoden. Therefore, no exact data are available on the parliamentary seat shares of parties. For measuring electoral competition we took into account not only estimations of the seat shares of parties but also of professional associations and of non-partisan MPs since the latter two categories play a distinctive role in the politics of these two cantons.

Due to limitations in space, we cannot display exact coding details for each indicator in this paper. However, the detailed codebook and the disaggregate data for each indicator shall be made accessible online at a later stage; for the time being, they are available from the authors upon request.

As for the *aggregation* of the subcomponents towards components and dimensions of democracy, we relied on our hierarchical theoretical conceptualization of democratic dimensions. We have compared several aggregation strategies. In one version we computed factor-scores for the superordinate components and dimensions, repeating the procedure described above. This strategy uses the factor-loadings of components as their empirical weights. Alternatively, we calculated the democratic measures by averaging the standardized subordinated components. This strategy implies that these subordinated components enter our democratic measures with the same weight. Moreover averaging supposes additive relationships between democratic components, where a low score on one component can be made up with a higher score on another component. A more sophisticated strategy would theoretically deduce differentiated weighting schemes as well as define aggregation rules based on the theoretical relationships between democratic components (Munck and Verkuilen 2002: 23-27). While our constructed models of democracy intend to tap central dimensions and components of liberal and radical conceptions of democracy, it is beyond our ambition to theoretically justify particular relationships between democratic components, nor will we theoretically ascribe them differential weights. Lacking in encompassing and precise theories of how elements of liberal and radical democracy combine and interact, we instead decided to draw on factor analysis and additive aggregation. These latter strategies led to similar proportionate results. In the analysis below we will favor the additive measures, as they have a straightforward interpretation: each component entered the superordinate component with the same weight.

In order to facilitate comparisons over space and time, we then standardized all aggregated democratic measures. Each democracy is located on a scale between zero and one, where zero denotes the worst practice reported for any cantonal democracy between 1979 and 2009, and one stands for the best practice ever achieved within this time span. Although our focus clearly is on the liberal and radical *dimensions* of democracy, these dimensions can be further aggregated. We calculated several indices of democratic quality: The *liberal index* averages the three liberal dimensions, the *radical index* accordingly averages the radical dimensions. As several cantons showed high values on both the liberal and radical index, we also built an

overall index of democratic quality, combining liberal and radical dimensions of democracy by simply computing their average. Such an overall index stands in line with existing broader conceptualizations of democracy.¹⁰

Such meta-indices facilitate theorizing and testing on liberal and radical democracy, yet this comes with the price of hiding the underlying multi-dimensionality and systematic variation which is better captured and visualized by our six dimensions of democracy. The analyses in the next chapter will handle this trade-off between higher and lower aggregation levels (Munck and Verkuilen 2002: 22) in an eclectic way. The comparative analyses of the influencing factors of fiscal policy in the Swiss cantons will test the effects of democratic quality at both levels, considering the liberal and radical meta-indices as well as the corresponding democratic dimensions.

5. Analysis: Dimensions of Democracy and Fiscal Policy in the Swiss Cantons

5.1. Descriptive Part: Differences between the Cantonal Democracies

Before we turn to analyzing possible effects of different qualities of democracy, the diversity of cantonal democracies recorded by the presented measurement instrument may be illustrated by spider diagrams (Figure 2).

Some cantons, such as Fribourg, exhibit a high quality of democracy rather with respect to the liberal dimensions. Other cantons, such as Glarus, are instead stronger on dimensions of radical democracy. However, high values in liberal and radical dimensions do apparently not preclude each other; this is best illustrated by the example of Bern which ranks among the highest in as many as five dimensions – whereas Appenzell Innerrhoden (not shown here), on the contrary, ranks among the lowest in most dimensions. Still other cantons, such as Ticino, focus on particular dimensions on the radical *and* on the liberal side of the hexagon.

¹⁰ Diamond and Morlino (2004; 2005), for instance, combine the following procedural dimensions: Rule of law, participation, competition, vertical accountability, and horizontal accountability. The aspects of freedom and equality are treated separately as substantial dimensions; responsiveness is denoted as a result-oriented dimension. – See also the Democracy Barometer (Bühlmann et al. 2008b; www.democracybarometer.org).

Figure 2: Examples of Cantonal Democracies Measured by Six Quality Dimensions



LC = Liberal Constitutionalism. HA = Horizontal Accountability. EA = Electoral Accountability. IN = Inclusion. RP = Radical Participation. PA = Public Accountability.

Fribourg 2009, Glarus 2009, Bern 2009, Ticino 2009.

Important variations in cantonal qualities of democracy can also be found over time. For example, the canton of Obwalden has shifted from a rather radical democracy to a rather liberal democracy between 1979 and 2009. On the other hand, many cantons' democracies were recorded to have made some progress on most or all dimensions over the last thirty years.¹¹ The variance observed over time and space brings us to the question whether and how these differences in democratic quality affect the policy outputs of the different cantons.

5.2 Dimensions of Democracy Shaping Fiscal Policy

In analogy to Lijphart (1999) we now turn to the "so what" question: Do the measured dimensions of democracy make a difference? To this end we have accomplished a comparative analysis of the influencing factors on cantonal fiscal policy. The Swiss subnational entities dispose of a vast autonomy in forming their own systems of income taxes, subsequently there is a large cross-cantonal variation not only in the amount an average cantonal resident has to deliver to the state, but also in the redistributing effect of the cantonal tax-systems. Notwithstanding the ideal research setting exhibited by the Swiss cantons, comparative studies testing institutional explanations of cantonal public policies have long been hampered by scarce availability of data. Research on political economy has particularly been analyzing aspects of direct democracy (Pommerehne 1978; Frey 1992; Feld/Kirchgässner 1998). It was not before the last decade that a comprehensive institutional dataset on the cantons was made available owing to the comprehensive analysis undertaken by Vatter (2002). By investigating cantonal governments and parliaments as well as cantonal

¹¹ While this observation is certainly plausible to some extent, it possibly also reflects a certain bias in our selection of indicators, overstating more recent achievements while underexposing issues debated in past decades.

direct democracy, he combined previous research on Swiss politics with Lijphart's approach to consensus democracy. With regard to fiscal policy, he confirmed the findings of a dampening effect of frequent direct democratic polls on tax rates, but this result is supplemented by a likewise negative effect of broad governing coalitions, typical of Switzerland and, more generally, of consensus democracies. In another study he demonstrated an expanding effect of party fragmentation and fiscal and structural centralization in the Swiss cantons (Vatter and Freitag 2002).

By applying our multidimensional concept of democracy, we can further broaden the scope of investigation and examine the effects of six central quality dimensions of an encompassing democratic concept. In this manner it is possible to scrutinize general claims going along with liberal or radical ideas of democracy. Table 2 shows multivariate regression models, each estimating the effect of a single dimension on the cantonal (and communal) tax revenue per capita. The effects of the six dimensions could not be estimated simultaneously in one model, due to present multicollinearity and the small number of cases. Likewise we had to be very selective on the control variables and opted for a backward procedure eliminating control variables with a significance level below 95%.

According to our aggregated meta-indices, neither liberal nor radical quality of democracy has a significant effect on the fiscal burden. At the level of the democracy dimensions however, we find two opposed effects. The negative effect of radical participation generalizes the previous findings of the tax-lowering effect of direct-democratic aspects and decentralized structures. Taxes are lower in participatory cantonal democracies, also if controlling for income per capita and (latin) culture. By contrast, electoral accountability has an expansive effect on taxes, *ceteris paribus*.¹² The negative correlation between radical participation and electoral accountability (Pearson's correlation: -0.45) further suggests a substitutive relationship, where the different cantons have fully developed either the channel of direct-democratic co-determination at the cantonal and communal levels or the channel of holding representatives accountable through competitive elections, but not both. The restrictive effect of direct democracy supports the view that citizens are generally more conservative than politicians when it comes to fiscal policy (cf. Feld and Kirchgässner 1998). The resulting pattern also supports the argumentation that direct democracy has a restrictive effect because

¹² The coefficient of radical participation was also confirmed when splitting the period in three (1979-1989, 1990-1999, 2000-2007; models not reported). In the case of electoral accountability, the results were only confirmed for the first two decades. In the third period the degree of urbanization was a dominant driver of the tax level (models not reported).

logrolling, bargaining and political business cycles are less pronounced than in representative democracies.

Table 2: Determinants of Tax Revenue per Capita (Multivariate Regression Analysis)

Independent variables (average 1979-2007):	Dependent variable: tax revenue per capita (average 1979-2007)							
	1	2	3	4	5	6	7	8
Liberal Democracy	-324.8 (950.8)							
Liberal Constitutionalism		-386.5 (663.2)						
Horizontal Accountability			-1'810 (1'087)					
Electoral Accountability				1'983* (958.8)				
Radical Democracy					-951.7 (709.6)			
Radical Participation						-2'081* (903.1)		
Public Accountability							-621.8 (792.4)	
Inclusion								-1'633 (1'049)
Control variables								
Strength of leftist parties in government	-	-	-	-	-	-	-	-
Population (log)	-	-	1'586** (546.6)	-	-	-	-	1'146** (397.3)
Degree of urbanization	20.05* (8.208)	18.45* (7.267)	-	-	18.69* (7.013)	-	20.56* (7.560)	-
Income per capita	0.0785** (0.0247)	0.0778** (0.0246)	0.118** (0.0199)	0.101** (0.0218)	0.0786** (0.0236)	0.107** (0.0204)	0.0734** (0.0255)	0.117** (0.0199)
Latin culture (share of French or Italian speaking people)	18.53** (5.492)	18.12** (5.274)	22.32** (5.219)	17.11** (5.821)	16.15** (5.290)	13.46* (6.480)	16.21* (5.730)	23.10** (5.481)
Constant	588.1 (966.3)	693.2 (958.8)	-7'359** (2'593)	-602.0 (883.0)	941.4 (904.2)	1'296 (1'032)	852.1 (998.0)	-5'136* (1'979)
Observations	26	26	26	26	26	26	26	26
R-squared	0.717	0.720	0.738	0.687	0.738	0.699	0.723	0.734

Unstandardized regression coefficients (OLS-estimates), standard errors in parentheses. No outliers (DFbeta>1) identified.

** p<0.01, * p<0.05 (two-tailed), - eliminated by backward stepwise regression-procedure (p>=0.05).

Besides the tax level we also compared the redistributive effect via tax scales across cantons. An index of redistribution for the Swiss cantons has been calculated by Rotzinger (2010) for the fiscal year 2006. To this end he first calculated cantonal Gini coefficients with regard to the adjusted net incomes (taxable income minus deductions) as well as a cantonal Gini after

subtracting the owed tax. These Gini coefficients were put in relation to form the index of redistribution.¹³ Due to lacking comparable data on the income before deductions, it is not possible to calculate the effective progression of cantonal tax systems which would also take into account the considerable redistributive effect of cantonal deduction schemes.

Table 3: Determinants of Fiscal Redistribution (Multivariate Regression Analysis)

Independent variables (average 2000-2007):	Dependent variable: fiscal redistribution (2006)							
	1	2	3	4	5	6	7	8
Liberal Democracy	0.878 (0.614)							
Liberal Constitutionalism		0.906* (0.435)						
Horizontal Accountability			0.995 (0.744)					
Electoral Accountability				1.174 (0.716)				
Radical Democracy					0.467 (0.571)			
Radical Participation						0.483 (0.640)		
Public Accountability Inclusion							0.408 (0.546)	
								1.044 (0.771)
Control variables								
Strength of leftist parties in government	0.185** (0.0430)	0.154** (0.0380)	0.190** (0.0420)	–	0.162** (0.0408)	0.140** (0.0453)	0.165** (0.0409)	0.129* (0.0473)
Population (log)	–	–	–	2.976* (1.197)	–	–	–	–
Degree of urbanization	-0.059** (0.0166)	-0.041* (0.0172)	-0.062** (0.0177)	-0.089** (0.0187)	-0.0403* (0.0187)	–	-0.044* (0.0199)	-0.046* (0.0189)
Income per capita	-0.00014** (0.00003)	-0.00014** (0.00003)	-0.00015** (0.00003)	–	-0.00015** (0.00003)	-0.00019** (0.00003)	-0.00015** (0.00004)	-0.00014** (0.00003)
Latin culture (share of French or Italian speaking people)	–	–	–	0.0440** (0.0119)	–	–	–	–
Constant	21.54** (1.290)	21.25** (1.502)	21.89** (1.266)	3.613 (5.763)	22.09** (1.566)	22.31** (1.616)	21.94** (1.656)	22.37** (1.463)
Observations	25, 1 outlier	26	25, 1 outlier	26	26	26	26	26
R-squared	0.774	0.708	0.771	0.649	0.659	0.588	0.657	0.676

Unstandardized regression coefficients (OLS-estimates), standard errors in parentheses. Outliers (DFbeta>1) eliminated in models 1 and 3.

** p<0.01, * p<0.05 (two-tailed), – eliminated by backward stepwise regression-procedure (p>=0.05).

¹³ Index of redistribution = [(1 – post-tax Gini/pre-tax Gini) x 100]

Table 3 again shows no significant effects of our meta-indices. The only significant coefficient was found for liberal constitutionalism (average value 2000-2007), positively affecting fiscal redistribution. This is surprising, given our liberal conceptualization of constitutionalism, which historically intended to expand individual freedom and restrict state interference.¹⁴ Cantons disposing of a culture stressing constitutional freedoms and a strong rule of law seem to give more consideration to the needs of weaker social strata. This result holds even if controlling for the political orientation of government, for the degree of urbanization and for the income per capita.¹⁵ We could not find, however, a dampening effect of radical participation, as could be expected from previous research on the effects of direct democracy on social policies (Wagschal/Obinger 1999) or on income equality (Fischer 2005). Moreover, there is no significant redistributive effect of inclusion, although consensus democracies are thought to be more socially redistributive on grounds of their capacity to represent diverse social groups, to include minorities such as the socially disadvantaged people, and to take over a broader political responsibility (Lijphart 1999).

6. Conclusion

So far we have presented a multidimensional measurement instrument which is conceptualized in a way allowing to capture both the liberal and the radical qualities of democracy. We also demonstrated how the instrument is capable of giving a differentiated account of democracies with the use of spider-webs. Moreover, we found some relevance of our measured democratic dimensions when comparatively investigating the influencing factors of fiscal policy in the Swiss cantons. We believe that our measures are helpful in further investigating the functioning and working of cantonal democracies. At present we are testing our guiding hypotheses, stating that we can empirically discern rather liberal from rather radical cantons – the french-speaking cantons belonging rather to the liberal type. The multidimensional measurement instrument allows to generate typologies of cantonal democracies. It is also possible to systematically analyze empirical interactions between dimensions or components, helping to find trade-offs and synergies.

We are currently pursuing several research projects related to these quality measures. When investigating the differences in democratic quality between small cantons with and without a

¹⁴ In order to prevent an artifactual relationship between liberal constitutionalism and fiscal policies we eliminated the sub-subcomponent 'actual scope of the state' from our measure of liberal constitutionalism used in this chapter.

¹⁵ As we dispose of the redistribution index for the fiscal year 2006 only, it was not possible to replicate this regression for the preceding decades.

Landsgemeinde (cantonal ‘town meeting’), the measures serve as a framework and deliver data for small-N comparative studies (Schaub 2010). In another study we investigated political trust of citizens towards their cantonal authorities, were the results suggested that there is a dilemma between certain dimensions of democracy and political trust (Dlabac 2010).

Our measurement concept which was developed for the Swiss cantons may also be applied to comparisons between other subnational and basically also between national democracies, with the constraint that the operationalization would certainly need some adaptation to the particular context. While analyzing radical qualities of democracies may be most relevant to democracies with highly developed direct-democratic institutions, as is the case in the US states and increasingly also in the German Länder (cf. Eder and Magin 2008), the radical dimensions of public accountability and inclusion seem equally relevant for describing purely representative democracies.

The multidimensional measurement instrument we have presented stands on a broader foundation than most common democracy indices. We think it is essential to reflect upon the varieties of democratic theories and to make explicit reference to the model(s) in mind when assessing the quality of democracy. By pursuing our research agenda for the case of the Swiss cantons, we hope to contribute to the debate on measuring democracy in general and to the research on subnational democracies in federal states in particular.

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Appendix: Short definitions of the indicators used¹⁶

Liberal Constitutionalism

Individual freedom	
Freedom rights	
- kv_frr_priva	Constitutionally guaranteed protection of the privacy sphere
- kv_frr_dign	Constitutionally guaranteed protection of human dignity
- kv_frr_life	Constitutionally guaranteed right to life, physical and psychic integrity
- kv_frr_info	Constitutionally guaranteed freedom of information
- kv_frr_data	Constitutionally guaranteed protection against misuse of personal data
- kv_frr_mov	Constitutionally guaranteed freedom of movement
- kv_frr_sciart	Constitutionally guaranteed right to academic freedom and freedom of art
- kv_frr_fam	Constitutionally guaranteed right to marry and to found a family
- kv_frr_opin	Constitutionally guaranteed freedom of opinion (building, uttering, propagating, and receiving)
- kv_frr_bel	Constitutionally guaranteed freedom of faith, conscience and creed
Property rights	
- kv_frr_home	Constitutionally guaranteed protection of the sanctities of the home
- kv_frr_est	Constitutionally guaranteed freedom of establishment
- kv_frr_prop	Constitutionally guaranteed protection of property
- kv_frr_econ	Constitutionally guaranteed freedom of trade and occupational choice
- kv_frr_expro	Constitutionally guaranteed restrictions to expropriation
Respect for rights and rules	
- kv_grr_rel	Constitutionally codified duty to respect the rights of others when exercising one's own basic liberties
- kv_legdut	Explicit constitutional codification of everybody's obligation to comply with his legal duties
- kv_ordsec	Constitutional codification of the state's responsibility to protect the public security and order
- crime_rate_N	Number of convictions under the penal law, per 1000 inhabitants (inverse)
Limited scope of the state	
Actual scope	
- Staatko_od_N	Total public expenditures by canton and municipalities, in CHF per capita (inverse)
- Verko_od_N	Cantonal (and municipal) expenditures for general administration and authorities, in CHF per capita (inverse)
- verwich_ktgem_od_N	Public employees of canton and municipalities together, per 100 inhabitants (inverse)
Constitutional provisions	
- kv_check	Constitutional codification of a continuous assessment of public tasks for their necessity/portability
- kv_budlim	Constitutional codification of the principles of a economical and balanced budget management of the state
- kv_finverb	Constitutional codification of conditional financing before adopting new public tasks
- kv_taxhurd	Constitutional codification of institutional barriers for tax increases
Rule of law	
Supremacy of the law	
Formal supremacy of the law	
- kv_pr_hear	Constitutional codification of a right to a court hearing
- kv_gesvorb	Constitutional codification of legal proviso
- kv_retroban	Constitutional codification of the prohibition on retroactive legislation
- kv_pr_judgm	Constitutional codification of a right for justified court ruling and instruction on the right to appeal
- kv_wilkverb	Constitutional codification of the prohibition of arbitrariness
Substantive supremacy of the law	
- kv_grr_restr	Constitutional restrictions of curtailing basic rights
- kv_grrkern	Constitutional codification of the inviolability of the core of basic rights
- kv_grrbind	Constitutional codification the commitment of public power and individuals to the basic rights
Equality before the law	
- kv_pr_fair	Constitutional codification of the right for a fair (/and equal) treatment in court hearings
- kv_gratadvice	Constitutional codification of the right for a free legal advice
- kv_pr_grat	Constitutional codification of the right of deprived people for free legal assistance and legal aid
- kv_diskrverb	Explicit constitutional prohibition of discriminating/benefitting certain groups with regard to the equality before the law
- kv_rechtsgl	Explicit constitutional codification of a general equality before the law
Protection of minorities	
Voting behavior favoring minorities	
- MF_Frauen	Minority-friendliness of cantonal voting results at national polls regarding women
- MF_Sprachmind	Minority-friendliness of cantonal voting results at national polls regarding language minorities
- MF_Aite	Minority-friendliness of cantonal voting results at national polls regarding elderly people
- MF_Behinderte	Minority-friendliness of cantonal voting results at national polls regarding handicapped people
- MF_Auslaend	Minority-friendliness of cantonal voting results at national polls regarding foreigners
- MF_Militaerverweig	Minority-friendliness of cantonal voting results at national polls regarding deniers of military service
- MF_Junge_Stimmrecht	Minority-friendliness of cantonal voting results at national polls regarding the voting right of younger people
Constitutional provisions	
- kv_frr_lang	Constitutional guarantee of language freedom
- kv_minprot	Constitutional codification of the protection of the rights of minorities
- kv_frr_cohab	Constitutional guarantee of the freedom of the form of cohabitation

¹⁶ A more detailed codebook is available from the authors upon request.

Horizontal Accountability

Strength of parliament versus government

Independence	
- Eröffnung_N	Opening of the new legislature period by government (inverse)
- Parlamentsdienst	Independent parliamentary secretariat resp. later parliamentary services
- Id_Unver	Incompatibility of governmentary and parliamentary mandate
Supervisory rights	
- Akteneinsicht_AufsKomm	Insight in files by inspection commissions
- Inferecht	Information right of members of parliament explicitly codified
- Akteneinsicht_allgKomm	Inquiry and insight in files by general commissions
- PUK	Possibility of inserting a (powerfull) parliamentary fact finding commission legally provided
- Konfliktregelung	Final decision-making competence in case of conflict between member of parliament and government
Legislative competencies	
Legislative competencies of parliament	
- Reg_programm	Parliament treats government program
- Parlnit	Possibility of parliamentary initiative
- Fragestunde	Possibility of question time
Legislative competencies of government	
- Finanzbefugnisse_N	Financial competences of government (inverse)
- Dringlichkeitsrecht_N	Right of urgent acts by government (invers)
- Notrecht_N	Right in state of emergency by government (inverse)

Power sharing in parliament

Power sharing regulations	
- kv_readings	Constitutionally defined number of readings before adoption of laws by parliament
- minfrakrel_N	Number of members of parliament necessary for building a fraction, in relation to the number of seats in parliament (inverse)
Strength of opposition in parliament	
- Oppositionsstaerke	Index of effective power of opposition parties versus governing parties in parliament (seat shares)
- CoalitType2	Coalition type of government (minority, surplus majority, minimal winning, hegemonial)

Judicial independence

Separation from government and parliament	
- Unvereinbar_KR	Incompatibility of mandate at the cantonal high court with parliamentary mandate
- Funktionelle Unabhangigkeit	Independence of courts/jurisdiction codified in constitution or law
- Unvereinbar_RR	Incompatibility of mandate at the cantonal high court with government mandate
Personal independence	
- Unvereinbar_Anwalt	Incompatibility of mandate at the cantonal high court with mandate as advocate
- Prasidentenwahl	Instance for confirming resp. electing the president of the cantonal high court
- Unvereinbar_VR	Incompatibility of mandate at the cantonal high court with an administrative board mandate
- Amtsdauer	Term of office of judges at the cantonal high court
- Amtszeitbeschrankung_N	Limitation of term of office at the cantonal high court (inverse)
Professionalization	
- Eignungsprufung	Instance for controlling ability and eligibility of candidates for the cantonal high court
- Wahlvorbereitung	Instance preparing elections
- Aufsichtsorgan	Instance of superintendence
Organizational independence	
- Budgetrecht	Eigene Budgeterstellung durch die Gerichte
- Verwaltungsautonomie	Constitutionally or legally codified right of autonomous administration of courts or jurisdiction
- Antragsrecht_Parl	Right for applying for finances directly at the parliament
- Anstellung_Kanzlei	Appointment of chancellor by highest cantonal court

Independent controlling instances

Administrative jurisdiction	
- Verwaltungsgericht	Administrative court as ultimate authority in disputes concerning administrative law
- Generalklausel	Efficacy of administrative court
- Verwaltungsg_Jahre	Years since introduction of an administrative court
- Rechtsweggarantie	Guaranteed recourse to the cantonal courts also in cases concerning federal administrative law
Constitutional review	
- Verfassungsgericht	Institutionalized constitutional court
- VerfG_Index	Index of powers of courts regarding constitutional review
Agencies of protection	
- Ombuds	Existence of a cantonal ombudsman
- FK_Umfang	Scope of financial control
- kv_fincont	Constitutionally guaranteed independence of financial control

Electoral Accountability

Free elections by secret ballot

- secelec_parl	Secret ballot at elections of cantonal parliament
- secelec_reg	Secret ballot at elections of cantonal government

Electoral vulnerability of incumbents

Electoral vulnerability in government	
- CompRegElec2	Difference between number of candidates and number of mandates in last total renewal elections
- Kampfwahl_Reg	More candidates than seats in last total renewal elections
- wett_reg_se	100% minus seat share of strongest party in government
Electoral vulnerability in parliament	
- wett_parl2_se_N	Difference between largest and second largest party in parliament, in % of all seats (inverse)
- wett_parl_se	100% minus seat share of strongest party in parliament

Electoral availability

- Volatilitaet_se_year	Parliamentary volatility: Netto change of seat shares of parties, standardised for the length of legislature
- reg_stab2	Change in party composition of government

Clarity of responsibility

- reg_party_N	Number of governing parties (inverse)
- spann_N	Range of party composition of governing coalition (inverse)

Relative governmental autonomy

Independence from the people between elections	
- reglegisl	Term of office of government, in years
- parlegisl	Term of office in parliament, in years
- Referendumsausschluss	No subsequent referendum possible in case of urgent acts, according to constitution
Independence from specific interests	
- kv_transpint	Constitutional codification of an obligation of members of parliament to disclose interest bonds
- kv_freemand	Constitutional codification of a free mandate for members of parliament
Autonomy from other state levels	
- transfer_N	Total revenues received from the federal state, in CHF per capita (inverse)
- gem_init_ref2_N	Right of initiative and referendum for single municipalities on cantonal laws (inverse)

Radical Participation

Extended electoral rights

Electoral rights	
- volkwahl	Years gone by since the introduction of direct popular election of cantonal executive
- regpraes_volkwahl	Election of the executive's president in popular elections
- Ernennungsbehörde_N	Popular elections for the judges of the highest cantonal court
- beratung_wahl	Institutionalized opportunity for the citizens to collectively deliberate on elections and candidates
Recall rights	
- recall_reg	Possibility to recall the cantonal executive from office ahead of time by a popular initiative
- recall_parl	Possibility to recall the cantonal parliament from office ahead of time by a popular initiative

Direct-democratic rights

Basic rights of popular initiative and popular referendum	
- GIR	Index for the institutional openness of the popular statutory initiative, as proposed by Stutzer (1999)
- VIR	Index for the institutional openness of the popular constitutional initiative, as proposed by Stutzer (1999)
- GRR	Index for the institutional openness of the statutory referendum, as proposed by Stutzer (1999)
- FRR	Index for the institutional openness of the fiscal referendum, as proposed by Stutzer (1999)
More refined direct-democratic rights	
- verfahrinit_scope	Existence and scope of a popular right to propose a different order of votes, postponement of authorities' projects, and/or revision of such projects
- beratung_sach	Institutionalized opportunity for the citizens to collectively deliberate on the issues put to popular vote
- KRR	Index for the existence and institutional openness of the 'constructive referendum'

Use of direct-democratic rights

- initot	Number of popular initiatives put to vote
- reftot	Number of referendums put to vote

Local self-rule

Financial and perceived local autonomy	
- foed_tax_N	Size of municipal as compared to cantonal fiscal revenues
- foed_schreiber	Degree of local autonomy as perceived and reported by the heads of municipal administrations
Constitutional local autonomy	
- kv_gembest	Constitutionally guaranteed right for the existing municipalities to continued existence
- kv_gemaut	Constitutional codification of municipal autonomy
- kv_gemfusion	Constitutional provisions concerning mergers of municipalities

Public Accountability

Transparency of political processes

Transparency of parliament and communication by authorities	
- kv_vernehmli	Explicit constitutional codification of the mechanism of consultation
- oeffprin2	Legal enactment of the general rule that any governmental documents are freely accessible to the public
- kv_behinfo	Constitutionally codified duty of the authorities to inform the public about their activities
- ParlSecretSess_N	Provisions concerning the possibility of secret sessions or secret decisions on single agenda items by the parliament (inverse)
- ParlProt	Accessibility and elaborateness of the minutes of parliamentary sessions
Transparency of government and courts	
- kv_publger	Constitutional provisions concerning the public access to judicial proceedings
- kv_publreg	Constitutional provisions concerning the public access to government sessions

Media

Media rights	
- kv_infodiv	Constitutionally codified public task to promote information diversity
- kv_zensverb	Constitutional codification of the prohibition of censorship
- kv_medfoerd	Constitutionally codified public task to promote media access
Media diversity	
- pressdiv	Press diversity: Number of newspapers with self-contained, regular reporting on cantonal politics
- presscompdist_ex	Degree of press competition within the subcantonal districts
Media use	
- Radio	Share of survey respondents who use radio broadcasting for their opinion-making
- Zeitung	Share of survey respondents who use newspapers for their opinion-making
- Fernsehen	Share of survey respondents who use television broadcasting for their opinion-making

Extra-institutional participation

Constitutional protection of extra-institutional participation rights	
- kv_frr_demo	Constitutionally guaranteed freedom to demonstrate
- kv_frr_pet	Constitutionally guaranteed right to petition
- kv_frr_stri	Constitutionally guaranteed right to strike
- kv_frr_assoc	Constitutionally guaranteed freedom of association
Participative culture	
- Mitglied	Share of survey respondents who are member of at least one political or economic organization
- Leserbriefe	Share of survey respondents who use letters to the editor for their opinion-making
- Interesse	Share of survey respondents who state to be very interested in politics

Inclusion

Equal political involvement

Universal and equal right to vote	
- stimmalterakt	Age required for the right to vote and to elect (inverse)
- passelmin_go_N	Age required for the right to be elected into the cantonal executive (inverse)
- lady1	Female suffrage
- Ausl_StiR	Existence and scope of suffrage for foreign residents
Equal participation	
- T_Bildung_N	Disproportionality of actual participation rates between groups of different education levels (inverse)
- T_Qualifikation_N	Disproportionality of actual participation rates between groups of different occupational statuses (invers)
- turnout_v	Turnout rate in cantonal popular votes
- T_Geschlecht_N	Disproportionality of actual participation rates between gender groups (inverse)
Minimal amount of resources	
Social rights	
- kv_sr_work	Constitutionally guaranteed right to paid work
- kv_sr_dwell	Constitutionally guaranteed right to housing
- kv_sr_matmin	Constitutionally guaranteed rights to a minimal amount of material resources, in case of need to be provided by public funds
- kv_sr_heal	Constitutionally guaranteed rights to the protection and advancement of one's health
Rights to education	
- kv_sr_edurights	Constitutionally guaranteed right to (adequate) education
- kv_sr_eduquant	Constitutionally codified public task to provide several educational services
- kv_sr_eduacc	Constitutionally guaranteed right to an equal and easy access to the educational services
- kv_sr_edugrat	Constitutionally guaranteed right to education free of charge

Inclusive representation

Electoral system favorable to minorities	
- thresho_N	Effective threshold to get a seat in the cantonal parliament (inverse)
- proporz3reg	Degree of proportionality of the electoral systems for parliamentary and governmental elections
- parlmand	Number of seats in the cantonal parliament
Representation of parties in parliament	
- rae	Rae index of parliamentary party fractionalization
- Gallagher_N	Index for the effective disproportionality of the parliamentary electoral system, as proposed by Gallagher (inverse)
Inclusiveness of the governing coalitions	
- reg_konk	Cumulated vote share (in parliamentary elections) of all parties represented in government
- kommprop	Average number of seats in parliamentary committees per party
Proportional representation of socio-structural groups	
Proportional representation by gender	
- Frauenteil_gov	Share of female members in government
- Frauenteil_parl	Share of female members in parliament
Proportional representation by age and profession	
- Durchschnittsalter_reg_parl_N	Average age of the members of government and parliament (inverse)
- disrep_prof_reg_parl_N	Disproportionality of the occupational groups' representation in government and parliament (inverse)