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Nothing but the Cuckoo Clock? Determinants of Public Funding of Culture in Switzerland 1977 - 2010

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Abstract
Sociology of culture has established knowledge about the social processes in the production, valuation and consumption of cultural objects and the arts. However, public spending on culture is predominantly studied in political science and political economy. Therefore, the aim of this article is to add a sociological view to existing political and economic examinations of public funding of culture and arts. This is pursued by concentrating on the determinants of public cultural expenditures, which we consider as comprising not only political (party ideology, electoral cycle, direct democracy) and economic (central locations, spatial spending patterns) but also social factors (population’s structure according to education, income, age). This interdisciplinary approach is based on the idea that cultural policy is located at the intersection of political decision making, cultural production, and cultural consumption. Empirically, we study cultural expenditures and their determinants for the 26 cantons of Switzerland from 1977 to 2010 based on hybrid panel regression models. Our results show that the Swiss cantons exhibit strikingly different patterns of cultural expenditure. Consistent with our main assumption they are shaped by social, political and economic-geographic variables. Yet, the interplay of these variables differs between classical cultural expenditures and public funding of sports and leisure.

1. Introduction
Sociology of culture has established knowledge about social processes in the production, valuation and consumption of cultural objects and the arts. The social and economic situation of art producers and their organization is a thriving field of research (Becker 1982; DiMaggio 1987; Menger 1999; Dubois/Francois 2013; Lena/Lindemann 2014; Lachmann/Pain/Gauna 2014), the functioning of art markets is covered not only by economists, but also by sociologists of culture (Velthuis 2004; Beckert/Rössel 2013). Furthermore, sociologists have

1 We owe this title to Kevin Mulcahy, who alluded us to the famous remark added by Orson Welles to the script of the movie “The Third Man”: “You know what the fellow said – in Italy, for thirty years under the Borgias, they had warfare, terror, murder and bloodshed, but they produced Michelangelo, Leonardo da Vinci, and the Renaissance. In Switzerland, they had brotherly love, they had five hundred years of democracy and peace – and what did that produce? The cuckoo clock”. Actually Switzerland is not the origin of the cuckoo clock, it originates from the black forest in Germany.
studied the valuation of cultural objects and their consecration by different powerful actors in the respective fields (Bourdieu 1999; Verboord/van Rees 2008; Dowd 2011; Dubois/Francois 2013). Most elaborate, yet, is the analysis of cultural consumption; be that patterns and main dimensions of cultural participation, the different modes of cultural consumption, or its socio-structural basis (Bourdieu 1984; Roose et al. 2012; Savage/Prieur 2011; Rössel 2011; Katz-Gerro 2011). However, the role of state institutions in evaluating and supporting culture seems to be less prominent in the sociological literature. Even though there is some research on the canonization of culture in textbooks and in the school curriculum (Verboord/van Rees 2008; Bevers 2005), support and public spending in the field of culture have not been under much consideration from a sociological perspective (for an important exception: Feder/Katz-Gerro 2012). Therefore, the aim of this contribution is to add a sociological view to existing political and economic examinations of public funding of culture and arts and thus contribute to a genuine interdisciplinary explanation of cultural policy.

Cultural policy, whose basic component is granting public subsidies for cultural projects, is located at the intersection of different societal fields and thus the result of an interplay of a multitude of actors ruled by different institutions. It is directly connected with political decision making processes and with cultural producers’ supply opportunities; but it is also, probably mutually and less directly, tied to the demands of (potential) cultural consumers. Hence, determinants of public cultural spending should be analyzed from several theoretical perspectives as they comprise not only political but also social and economic factors. Our strategy, then, is to augment previous research on public cultural spending stemming from political science and political economy with discussions about the socio-structural bases of cultural consumption. This results in an interdisciplinary aggregation of social, political, and economic determinants which we assume to be most relevant for the explanation of public cultural expenditure in the present study (section 2). More specifically, we will focus our attention on the population’s educational, income, and age structure as well as political institutions like parties, electoral cycles, and direct democratic alternatives. Moreover, we take account of central locations and spatial spending patterns as discussed in economic geography. Based on these considerations we derive hypotheses guiding our empirical study. After discussing our methods and presenting the available data in section 3 we present the empirical results with respect to our hypotheses in section 4. Basically our results underline our main assumption: public spending for culture results from a complex interplay of social structures, political institutions and economic-geographic patterns.
We study the determinants of cultural expenditure for the case of Switzerland from 1977 to 2010. Previous research has shown that the causal mechanisms that shape public spending are highly context sensitive. The party difference hypothesis for example predicts that left wing parties and their supporters advocate more generous public spending (Hibbs 1977; Wagshal 2006: 70). However, depending on the country context parties seem to matter not at all for cultural expenditure, in some cases left wing parties and their supporters tend to further it whereas in other countries right wing parties and their supporters back such funding (Schulz/Rose 1998; Getzner 2004a; Noonan 2007; Lewis/Rushton 2007; Potrafke 2010a; 2010b; Dalle Nogare et al. 2011; Benito et al. 2013). Therefore, empirical research on the explanation of cultural expenditure has to focus on the context of specific cases. As a rather small, federal country with strong institutions of direct democracy, Switzerland provides an important supplementary instance for research on cultural expenditure. It is generally assumed that public spending is lower in federal compared to unitary countries (Wagshal 2006). However, more recent research has shown that federalism also increases rent-seeking behavior (Obinger et al. 2005; Wagshal 2006). The federal structure of Switzerland is of prime importance for our study, because it enables us to compare the relevance of political institutions in 26 cantons. In particular, Switzerland is an important test case for analyzing the role of direct democracy for cultural expenditure. Since there is a world-wide spreading of institutions of direct democracy (Scarrow 2001; Setala/Schiller 2009), the Swiss experience may enable us to draw some lessons for other countries based on our study.

As a federal and rather liberal country Switzerland relies on a principle of double subsidiarity with respect to cultural expenditure: firstly, culture should be supported by private actors, which is stimulated by tax relief. Secondly, public spending for culture should be on the municipal and cantonal (i.e. state) level (Schwab/Surdez 2007). However, private spending accounts with 15–20% of all expenditures for only a small part of financial support for culture. Most public spending does indeed take place at the municipal and cantonal level (85 %). In our study we aggregate municipal and cantonal spending at the cantonal level and thereby grasp the bulk of public cultural spending. This federalist framework of cultural expenditure is an advantage for our analysis since it allows for the incorporation of regional specificities in electorate composition and political institutions. These, in turn, should correspond more with regional than national political outcomes (Getzner 2004a). Similar to Armingeon et al (2004), who find a multiplicity of “Swiss Worlds of Welfare” in the different cantons, we expect to find different spending patterns in the 26 Swiss cantons. Therefore, our

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2 The 26 cantons are the member states of the federal state of Switzerland.
focus on the subnational level enables us to follow 26 historical trajectories over time. In contrast to the sometimes stereotypic internal and external perception of Switzerland culminating in the mythical image of a rural country of alpine herdsmen catering to alpine tourists (Siegenthaler 1992), we want to deconstruct this idyllic image and demonstrate the diversity of culture and cultural policy in the different Swiss cantons. Since the cantons also differ strongly with respect to economic and social structures, we are able to compare the determinants of spending between the cantons and over time. One specific characteristic of Switzerland are the institutions of direct democracy, which have supposedly strong impact on public spending levels (Kirchgässner 2010; Schaltegger 2001). Since direct democracy varies in strength between the cantons, we are able to systematically study its impact on cultural expenditure. Similar to federalism, it is argued that direct democracy brings preferences of the electorate and political decisions more into correspondence (Potrafke 2010b; Kirchgässner 2010). Therefore, the Swiss case enables us not only to study the relevance of political institutions for the explanation of cultural expenditure patterns, but the conditions of federalism and direct democracy should lead to a high relevance of electoral preferences for budgetary decisions and thus makes the social structure of the cantonal populations crucial for explanation. Hence, the specific institutional situation in Switzerland increases the relevance of adding a sociological perspective to conventional explanations of public expenditure for culture.

2. Theoretical approaches to explaining cultural expenditure
In our basically interdisciplinary approach to explaining public expenditure for culture we rely on established theories in political science and political economy to develop hypotheses on the influence of political institutions, economic and geographic conditions (section 2.2. and 2.3.) But beforehand we discuss social structure as a determinant for public spending to add a sociological contribution to the existing research literature (section 2.1).

2.1. Demand and support for culture: the case for social structure
We assume that the social structure of the population of a canton and thus the preferences of the electorate matter for budgetary decisions. This premise is based on two explanatory mechanisms: on the one hand we can expect the parties in a canton to compete for the available voters and thus to reflect the social structure of the electorate. This is similar to the
well-known median-voter model in political science (Downs 1957). In a federal system the electorate’s preferences should be particularly well represented by the cantonal parties. Furthermore the institutions of direct democracy enable it to enforce its preferences (Kirchgässner 2010; Potrafke 2010b). As Potrafke (2010b) has shown with respect to the decision to build a concert hall in Constance (Germany), representative democracy may lead to a decoupling between a party’s political behavior and its electorate’s preferences. In this case the left politicians voted for the concert hall, whereas their voters voted against the concert hall in a referendum. It was the other way round for the conservative parties. The institutionalization of direct democracy in the Swiss case should reduce this decoupling between the electorates preferences and the parties’ behavior, thus the social structure of the population and its preferences should matter strongly for budgetary decisions. Therefore, we expect groups, which have a preference for culture to support public spending for cultural issues. However, this would decrease the entrance fee for everybody and thus would provide culture and the arts for a larger share of the population. Feder and Katz-Gerro (2012) have termed this model the arts provision approach and contrasted it with the hegemony distinction perspective. In the latter it is assumed that the members of the arts audience prefer to restrict the supply of culture, to exclude large parts of the population from the access to distinctive high-brow culture. In their time series analysis of cultural funding in Israel they find empirical support for the arts provision approach with respect to theatres and orchestras, but with respect to opera the results point towards the hegemony distinction perspective. Hence, we have to take into account that social structure as such does not represent the preferences of the electorate; art lovers may support public funding for the arts, but they may also want to restrict access to it.

From surveys of arts audiences and population surveys we know that cultural participation is more widespread among persons with higher education and higher income (Bourdieu 1984; Katz-Gerro 2011; Roose et al. 2012). Based on the arts provision model we should expect the proportion of persons with higher education in a canton to have a positive effect on public funding for the arts, whereas the hegemony distinction approach predicts the contrary. The same is true is for mean income levels in the canton. Surveys studying the attitudes towards public funding of the arts come to mixed results. Katz-Gerro (2012) finds that persons with higher education in the UK and the US support public funding for the arts, whereas income exhibits positive effects only in the UK. High income individuals in the US support public spending only when they are actually visitors themselves. In contrast Brooks (2001) finds for the US that high income and education have a positive effect on support for the arts, the
impact of education is however completely mediated by liberal ideology. Research on
referenda on public spending for the arts leads to more clear-cut results: in general they find
that electoral constituencies with a higher proportion of higher-educated persons and higher
mean income tend to support public spending for the arts (Pommerehne 1982;
Frey/Pommerehne 1995; Schulze/Ursprung 2000; Getzner 2004b; Rushton 2005). Finally,
empirical analyses of the correlation between population characteristics and cultural
expenditure come to somewhat mixed results. Most studies, with the exception of Schulze and
Rose (1998), who find a negative effect, indicate a positive effect of income (Getzner 2002;
2004; 2013; Lewis/Rushton 2007; Noonan 2007; Potrafke 2010a; Benito et al. 2013). With
regard to educational levels some studies find the results predicted by the arts provision
approach (Feder/Katz-Gerro 2012; Werck et al. 2013) whereas other studies find no or even a
negative relationship (Schulze/Rose 1998; Noonan 2007; Bento et al. 2013). Summarizing,
there is some support for the arts provision approach, although some studies indicate that the
hegemony distinction perspective may be relevant for certain countries or cultural subgenres.

In addition to the utility deriving from the consumption of cultural events some authors
have argued that culture is also valued as legacy for subsequent generations (Pommerehne
1982; Frey/Pommerehne 1995; Schulze/Ursprung 2000). Persons may prefer to support
cultural institutions because they value the historical and cultural heritage of their country and
thus want their society to pass on its culture to future generations. These considerations
should of course be most important for persons with children. Thus, in cantons with a higher
share of young persons (children and juveniles) cultural expenditure should be higher.
However, the empirical results of previous studies are rather mixed: some show the expected
pattern (Frey/Pommerehne 1995; Schulze/Ursprung 2000; Getzner 2004b), whereas others
show no or even the contrary results (Noonan 2007; Dalle Nogare et al. 2011, Benito et al.
2013). All in all, even though previous research could not generate unambiguous results, we
can formulate the following unidirectional hypotheses concerning education, income, and age
structure which are open to empirical scrutiny:

\( H_{1a} \): The higher the share of persons with a tertiary education, the higher is cultural
expenditure.

\( H_{1b} \): The higher the mean income, the higher is cultural expenditure.

\( H_{1c} \): The higher the share of young people, the higher is cultural expenditure.
2.2. Political institutions and direct democracy

Our next step is to discuss established explanations of public expenditure focusing on political patterns. Here, we will discuss firstly, the party difference hypothesis, predicting differing political behavior between parties, secondly, the influence of the electoral cycle, and thirdly, as a Swiss specificity, the role of direct democratic institutions.

The basic idea of the party difference hypothesis is that parties cater ideologically to different segments of the electorate: whereas left wing parties are linked to lower- and working class voters favoring public expenditure and redistribution, right wing parties represent middle and upper class voters opposing redistribution and public spending (Hibbs 1976; Wagschal 2007; Potrafke 2011). Empirically, however, this hypothesis rarely proved true in the realm of cultural expenditure. Most studies find no party effect at all (Getzner 2002; Noonan 2007; Potrafke 2011; Dalle Nogare et al. 2011; Werck et al. 2013; Benito et al. 2013). Some studies show that in some cases right-wing parties support public funding for the arts more than left-wing parties, which is of course consistent with their middle- and upper-class electorate (Schulze/Rose 1998; Getzner 2004a; Potrafke 2010a). Furthermore, there is evidence that the political preferences of the electorate are of greater importance than the party ideologies (Getzner 2004b; Rushton 2005; Lewis/Rushton 2007; Potrafke 2010b; Dalle Nogare et al. 2011). However, in some cases public spending for the arts is supported by left-wing voters, in others by right-wing voters. Based on these arguments we focus on the parties’ electoral share and not on their role as government parties.

A further approach in political science connects government expenditure with a kind of political business cycle (Wagschal 2007; Benito et al. 2013; Dalle Nogare et al. 2011). This means that politicians strategically increase public spending prior to elections to boost the economy and please their voters. The empirical results for this thesis with respect to cultural expenditure have been quite mixed: Benito et al. (2013) found the predicted effects, whereas Getzner’s study (2004a) established no significant results and Dalle Nogare et al. (2011) even found that public spending for culture is reduced before elections. Therefore, we are also going to test this hypothesis empirically for the Swiss case.

Switzerland’s democratic system is characterized by rather strong institutions of direct democracy (Kirchgässner 2010). The fact that political decisions may be subject to a referendum may bring them more in line with the median voter, whereas in representative systems there may be a stronger decoupling of voter preferences and party behavior (Kirchgässner 2010; Potrafke 2010b). Voters in Switzerland exhibit a rather selective composition, since middle class and higher class persons are overrepresented, as well as older
and male individuals. Since communities and cantons have the right to tax, these groups may resist the increase of public spending and ensuing tax increases. Several studies have indeed shown that expected tax increases lead persons to vote against subsidies to the arts (Pommerehne 1982; Frey/Pommerehne 1995; Schulze/Ursprung 2000; Getzner 2004b). Therefore, direct democracy may reduce public expenditure in general (Schaltegger 2001; Kirchgässner 2010). Thus, we can expect that cantons with stronger institutions of direct democracy spend less on culture and the arts. Together with the remarks on parties and the electoral cycle outlined above we can derive three hypotheses respecting the political determinants of public cultural spending.

H2a: The higher the share of conservative voters and the lower the share of left-wing voters, the higher is cultural expenditure.

H2b: Before elections cultural expenditure increases.

H2c: The stronger the institutions of direct democracy are in a canton, the lower is cultural expenditure.

2.3. Economic and geographic conditions

When talking of economic determinants we first have to take into account that budgetary decisions are usually constrained by the financial situation of a polity. There is strong evidence that current debts and tax revenues have an impact on spending decisions (Schulze/Rose 1998; Getzner 2004a; Lewis/Rushton 2007; Noonan 2007). That is why we include the individual cantons’ overall amount of tax revenues into our analysis. Furthermore, we refer to Heilbrun’s (1992) thesis that art and culture bear central place functions. Especially for the performing arts, but also for culture more generally, there exists a minimum market size to support the establishment of certain cultural institutions. Thus, larger museums, opera houses, concert halls and so on are usually located in large urban agglomerations (Heilbrun 1992; Schulze/Rose 1998; Werck et al. 2008). This location is supported by other economies of agglomeration, like thick labor markets for arts personnel and information spillover (Heilbrun 1992). This is of course only true for most cultural establishments, but need not be true for all like heritage sites (Waterton/Smith 2010). Furthermore, public spending for the arts has stronger support among people living closer to the cultural attractions, because they have lower travel costs (Pommerehne 1982; Frey/Pommerehne 1995; Schulze/Ursprung 2000; Getzner 2004b; Rushton 2005). Finally,
one can assume that especially larger conurbations have to spend on leisure and cultural amenities to attract creative workers (Florida 2005). Despite the critical discussion of this thesis especially in cultural policy circles (McGuigan 2009) it has received some empirical support in further studies (Boschma/Fritsch 2009; Falck et al. 2010). However, it is not sufficient to treat communities in isolation from each other. It is well known in urban geography, that different municipalities are functionally linked to each other. A central location which spends a lot on cultural amenities is usually not able to exclude visitors from neighboring municipalities. When travel costs are low, which is true in a rather small country with excellent public transport like Switzerland, cantons may choose to free ride on the cultural expenditure of their neighboring canton. This has been demonstrated empirically for Flemish municipalities (Werck et al. 2008) and for Italian communities (Dalle Nogare et al. 2011).

H3a: The higher the tax revenue of a canton, the higher is cultural expenditure.
H3b: The larger the central location in a canton, the higher is cultural expenditure.
H3c: The higher the cultural expenditure of neighboring cantons, the lower the cultural expenditure of a canton.

Summarizing the theoretical approaches discussed, we expect a complex configuration of different determinants to shape public funding of the arts. Neither social structure alone, nor political institutions, nor geographic patterns seem to be the main determinants. However, a final assessment of this claim has to await our empirical study of public expenditure for culture in Switzerland between 1977 and 2010.

3. Data, variables, and methods

3.1. Data and variables

Empirically testing our hypotheses we resort to aggregate information on the 26 Swiss cantons over time. The sources of data are manifold; however, most data are accessible through the Swiss Federal Statistical Office (BfS). Additionally, we use information stemming from a comprehensive dataset on the “Quality of Democracy in the Swiss Cantons” which was collected and prepared at the Institute of Political Science at the University of Bern (Schaub/Dlabac 2012). Observing 26 cantons over 34 years leads to a panel data structure of points in time clustered into cantons, with an initial sample of 884 canton-years. However, not
all information needed for our analyses is available at every observational point, resulting in an unbalanced sample. Whenever feasible, we adopted linear interpolation techniques, but still not all missing data points could be remediated.

All dependent variables denote public cultural spending. More precisely, we take into account the per capita cultural expenditures of each canton and the municipalities located in it (measured in 100 Swiss Francs (CHF), inflation-adjusted to the year 2010). Official statistics differentiate between eight cultural domains publically funded, i.e. public expenditures for (1) concerts and theater, (2) museums and visual arts, (3) monument and cultural heritage preservation, (4) libraries, (5) media, (6) sports, (7) leisure, and (8) other cultural domains. We built three dependent variables differing according to the funded domains they include: overall cultural expenditures correspond to the sum of expenditures for all eight domains, classical cultural expenditures correspond to the sum of all domains but sports and leisure, and sports and leisure cultural expenditures correspond to the sum of only domains (6) and (7). The latter variable serves as a reference case to properly compare the determinants of cultural expenditure to a rather different spending category. Even though analyzing these three variables enables us to identify whether the determinants of public spending on culture vary by domain, the advantage of disentangling public cultural expenditures by domain can only be achieved in the period from 1990 onward. Prior to 1990 official statistics on the cantonal level report only information on overall cultural expenditures, including sports and leisure. Therefore only the analysis of overall cultural expenditures will cover the whole observational period from 1977 to 2010, whereas analyses of the other dependent variables will be restricted to the period from 1990 to 2010.

The list of determinants of cultural expenditures included in our models is geared to the hypotheses derived in section 2.

To measure the educational level of a canton’s population we use the share of persons holding a tertiary degree. Analogously, the age level is operationalized by the share of persons between 0 and 25 years old. The per capita net aggregate income of private and public households and corporations (in 1’000 Swiss Francs (CHF), inflation-adjusted to the year 2010) will serve as an indicator for the income level of a canton. These three parameters can be thought of as reflecting the social-structural determinants relevant for public spending on culture (H1a – H1c).

An important political determinant is the strength of political parties. Here we take into account Switzerland’s four major political parties, which are the SP (social-democratic party), the CVP (christian-democratic party), the FDP (liberal party), and the SVP (right-wing party).
For each canton and year we determined the share of every party in the cantonal parliaments. These shares can be interpreted as indicators of the electoral support of these parties in the cantonal population (H2a). The impact of electoral cycles (H2b) will be analyzed by calculating the time span in years between the current observation and the next cantonal election to come. To have a measure for the strength of direct democratic institutions in each canton (H2c) we use an index developed by Stutzer (1999), ranging from 1 to 6, with higher values indicating a stronger development of direct democratic rights. Since here the focus is on public expenditures we concentrate on the so called financial referendum, which is one of four sub-indices of the composite index for direct democratic rights (also Frey/Stutzer 2000). The index was prepared and calculated for most years between 1970 and 2010 by Schaub and Dlabac (2012). Finally, there are three variables indicating economic and geographic determinants. One determinant of public cultural expenditures is the per capita tax revenue of each canton and all the municipalities located in it (in C CHF, inflation-adjusted to the year 2010; H3a). Another is the number of inhabitants of the largest municipality of a canton in a certain year, which we use as an indicator for the size of a canton’s central location (H3b). The final determinant taken account of here is the amount of cultural expenditure of neighboring cantons (H3c). We include this in our models by calculating a simple spatial lag term of the form

$$W \times y_{ij}$$

where $y_{ij}$ is the dependent variable in question at time $i$ and canton $j$ and $W$ is a $26 \times 26$-matrix of the Swiss cantons, containing 1 when two cantons share a common border and 0 otherwise, each row divided by the number of 1-values of that row (cf. Beck et al 2006; for more complex applications in cultural expenditure research see Nogare/Galizzi 2011, Werck et al. 2008). Interpretatively, this term boils down to the mean of cultural expenditures of a canton’s neighboring cantons in each year. Since the term is sensitive to the cultural domain of the dependent variable there are three different terms, each one specific to one of the three models computed.

3.2. Analytical strategy and model specification

Two classical approaches to exploit the panel data structure described above in a multivariate fashion are either fixed- or random-effects models. Both aim at managing the two possible sources of variability of public cultural expenditures emerging in such a setting: differences between the cantons and differences within each canton over time. The advantage of fixed-
effects models is that the differences between cantons at every observational point are kept constant, so that each canton at time points \(i\) serves as its own control case for time point \(i\). Thus, all unobserved time-constant factors are controlled for when calculating the effects of time-varying determinants. However, the disadvantage of this strategy is that time-constant determinants would have to be excluded from the analysis and that only the intra-cantonal effects (within- or over-time-effects) can be estimated. The first disadvantage is of no practical relevance here since all independent variables are time-varying. The second, though, is quite problematic in our application since it would not be possible to figure out whether certain cantonal characteristics determine the differences in cultural spending between the cantons, but only within the single cantons over time. Random-effects-models, on the other hand, allow the inclusion of time constant independent variables and, more importantly, the additional estimation of effects cantonal characteristics have on the inter-cantonal differences in cultural spending. This is crucial when thinking of the amount of cultural spending in canton \(j\) at time \(i\) as being the result of two different influential pathways: On the one hand, this amount is due to fact that it is observed in one canton with specific structural, political, economic and geographical characteristics but not in another (between-effect). On the other hand, it is also due to the fact that it is observed in each canton separately at a specific point in time and not at another (within-/over-time-effect). However, when using ordinary random-effects models it is not possible to discriminate between the within- and between-component of the effects since only composite effects can be calculated.

This serious disadvantage of random-effects models can be remedied by a procedure proposed by Allison (2009: 23ff) whose main objective is to combine both fixed- and random-effects approaches to a so called hybrid approach (see also Halaby 2004). Therefore, to decompose the between- and within-component of its effect on cultural expenditures, we calculate the canton-mean of every independent variable over all available years \((\bar{x}_{ij})\) and the deviation from this mean at each point in time \((x_{ij} - \bar{x}_{ij})\). Integrating both components into an ordinary random-effects model instead of the original variables yields the full effect of each determinant but divided into its between- and within-component. This model takes on the general form of

\[
y_{ij} = \beta_0 + \beta_k^{w} (x_{ij} - \bar{x}_{ij}) + \beta_k^b \bar{x}_{ij} + \zeta_j + \epsilon_{ij} \tag{2}
\]

where \(\beta_k^{w}\) is the within-component of the effect of variable \(k\), \(\beta_k^b\) is the between-component of the effect of variable \(k\), \(\zeta_j\) is the canton-specific residual, and \(\epsilon_{ij}\) is the canton-year-specific residual. In this way it is possible to detect whether the influence of an independent variable
on cultural expenditures is due to the intra-cantonal development of the respective variable over time or to its more static differences between the cantons. Hence, we implement the decomposition procedure described for all determinants of cultural spending but two: the time span between the current observation and the next cantonal election and the spatial lag term of neighboring cantons. We do this because the former is in itself directed to over-time-effects and the latter to between-canton effects. Keeping this in mind and integrating the spatial lag term of (1) into (2), leads to the following final model,

\[ y_{ij} = \beta_0 + \beta_1 \left( x_{1ij} - \bar{x}_{1j} \right) + \beta_2 \bar{x}_{1j} + \cdots + \beta_{11} \left( x_{11ij} - \bar{x}_{11j} \right) + \beta_{12} x_{12ij} + \beta_{13} W y_{ij} + \zeta_j + \epsilon_{ij} \]  

which we apply to the three dependent variables. In this way it is possible to estimate both the inter- and intra-cantonal influence of all above mentioned social, political, and economic determinants on public cultural spending within one model. Not shown in equation (3) but also included in the actual estimations are dummy-variables for each observational year in order to control for possible period effects. This is necessary particularly to avoid biased within-/over-time-coefficients.

4. Empirical results

4.1. Descriptive information

We start analyzing cultural policies by descriptively inspecting the development of cultural expenditures. Looking at figure 1 one can easily recognize that overall cultural spending rose strongly from the seventies until 1990, then descended slightly, and remained at a quite stable level until the beginning of the new millennium. Yet, from 2005 onward, a renewed increase of overall cultural expenditures is observable. This finding is true not only for expenditures in absolute but also in per capita terms. However, the finding is not necessarily true for all cultural domains. Spending on sports and leisure did profit very much from the overall increase in the early 2000s., from 2008 onward it rather seems to go down slightly. Hence, the overall increase at the end of our observational period is mainly due to classical cultural expenditures (esp. museums, visual arts, libraries, cultural heritage); though not to all components of classical expenditures (not depicted individually).

The descriptive examination so far showed that there are considerable differences in cultural spending in Switzerland over time, with contrasting developments for the different cultural domains. In order to additionally give a provisional picture of the cantonal variations, figures 2 to 4 depict the three cultural expenditure variables for all cantons for the year 2010, both in
absolute and per capita terms. Firstly, looking at overall cultural expenditures, the canton of Zurich (ZH) turns out to exhibit by far the largest amount of spending in absolute terms, followed by the cantons of Geneva (GE), Vaud (VD), and Bern (BE). These are the cantons with the highest numbers of inhabitants. The lowest amounts of absolute cultural expenditures can be found in the small cantons, like Glarus (GL), Nidwalden (NW), Uri (UR) or Appenzell-Innerrhoden (AI). The picture, though, changes somewhat, when focusing on per capita spending. Then, the highest amounts can be found in the most densely populated and urbanized cantons like the city of Basel (City of Basel, BS) and Geneva. But also more rural cantons like Obwalden (OW) or Grisons (GR) are suddenly part of the “top league”. So, when comparing cantons with each other, it indeed makes a big difference whether one concentrates on absolute or per capita cultural expenditures. In the multivariate analyses the focus will be on per capita spending, since this relative measure seems to give the more valid information on cultural expenditure in a canton.

The next step is to investigate how cultural spending with respect to the two sub-domains

Figure 1: Cultural expenditures of all Swiss cantons and their municipalities, 1977-2010.
differs between cantons (figures 3 and 4). Again, Obwalden (OW) serves as an interesting example. As seen above, this canton shows a high level of overall per capita cultural expenditures. Contrasting figures 3 and 4, then, reveals that this is mostly by virtue of spending on sports and leisure. With regard to per capita spending for classical culture Obwalden is even among the ten cantons spending least. This is probably due to the fact that this canton, located in central Switzerland, is more famous for its qualities in alpinism and tourism than in offering classical (highbrow) cultural events, thus confirming the stereotypical image of Switzerland depicted in the introduction. Just the opposite picture can be observed when taking a look at the canton of the city of Basel (BS). There, classical per capita expenditures are highest among all cantons (figure 3), whereas sports and leisure expenditures are on an average level (figure 4). The former is mostly by virtue of spending for concerts and theater and, even more striking, for museums and visual arts (not depicted). Particularly in the domain of museums and visuals arts Basel by far exceeds all other cantons in per capita spending. Based on this evidence one can not only

Figure 2: Overall cultural expenditures of the Swiss cantons and their municipalities in 2010.
understand why Basel is Switzerland’s “capital” when it comes to the production, trading, and consumption of visual arts but also why “Art Basel” became one of the world’s most important platform for contemporary art. In comparison, Geneva which exhibits the second highest amount of classical cultural expenditures shows also a fairly high level of spending for sports and leisure. In the end, this leads to the result that Geneva has the highest amount of overall per capita cultural spending in Switzerland.

So far we can conclude that the initial situation to study cultural expenditures in Switzerland is quite multifaceted. On the one hand, there are notable differences in cultural spending over time. On the other hand and maybe even more significant, as the examples of Obwalden, Basel, and Geneva have illustrated, cantons vary not only according to the overall amount of cultural spending but also according to which cultural domains are subsidized most. They indeed represent something akin to different worlds of cultural expenditure, ranging from the alpine cantons focusing on sports and leisure to the city cantons with their strong emphasis on highbrow culture (Armingeon et al. 2004).

Figure 3: Classical cultural expenditures (all but sports and leisure) of the Swiss cantons and their municipalities in 2010.
Figure 4: Sports and leisure cultural expenditures of the Swiss cantons and their municipalities in 2010.

4.2. Hybrid panel regression models

We attempt to grasp the multifaceted situation described above by applying panel regressions which estimate the over-time- and between-canton-effects of determinants of cultural expenditures separately, but in one model (see section 3.2). The results of these hybrid panel regressions for the three dependent variables are depicted in table 1. It has to be noted in advance that three cantons (Appenzell-Ausserrhoden (AR), Appenzell-Innerrhoden (AI), and Grisons (GR)) had to be excluded from the models since there was no information on the party shares in the cantonal parliaments available in these cases.

Beginning with the socio-structural determinants of public cultural spending (H1a-H1c), one sees clearly that the higher a canton’s educational level the lower is its spending on (classical) culture. For both overall and classical cultural spending there is a significant negative inter-cantonal effect of the share of persons holding a tertiary degree. A corresponding over-time-effect cannot be found. This is in line with the hegemony-distinction approach put forward by
Feder and Katz-Gerro (2012), pointing to the fact that elites try to limit the access to legitimate culture by preventing subsidies for it. This interpretation even gets stronger support when taking into account that no negative effect was found in the case of expenditures for sports and leisure, which is not part of the canon of elite legitimate culture.

The effect of the income level of cantons is more complex. It is negative over time and positive between cantons, but again only in the case of overall and classical cultural expenditures. Hence, even though “richer” cantons feature more classical cultural spending in a comparative perspective, their expenditure decreases the richer they become over time. The arts provision approach with regard to income elites, then, can only be partly accepted; it is true in an inter-cantonal sense for the observational period under study here. But over time, and most notably in light of the negative effect of educational level, the empirical results speak more for the hegemony distinction perspective.

Taking a look at the age structure one can conclude that a canton spends more on culture the higher the share of younger people in it gets over time. Thus, H1c could be considered as confirmed. The fact, however, that this overall-effect is mostly by virtue of spending on sports and leisure does not support the assumption that families value culture as legacy for their children. It rather seems to be the case that younger people facilitate cultural goods and services they can immediately make use of. In general these results show that the social structural make up of a canton is of great importance for its cultural policy.

Let’s now turn to the political sphere and, first of all, to the influence of party ideologies. At first sight it seems that the share of both left-wing (SP) and christian-democratic (CVP) voters are in an inter-cantonal perspective positively associated with the amount of overall cultural expenditures. However, these effects are quite small so that they could not be identified with the same certainty in both sub-domains individually. On the other hand, it is consistently found for all cultural domains that increasing shares of christian-democratic (CVP) voters lead to decreasing public cultural expenditures over time. The same is true in the case of right-wing (SVP) voters, but only for classical culture. The share of liberal (FDP) voters, then, yields a negative inter-cantonal and a positive over-time effect. Hence, cultural expenditures (primarily for sports and leisure) rise after the FDP has gained weight in cantonal elections, but cantons with lower liberal party shares still exhibit higher public subsidies for (classical) culture. All in all, parties’ influence on cultural spending cannot readily be assessed. The most reliable result is a rather negative (i.e. impeding) influence of conservative and right-wing parties, leading to a refusal of hypothesis H2a. What is perfectly clear, on the other hand, is that electoral cycles (H2b) play no role at all for cultural expenditures in Switzerland. In no

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Table 1: Hybrid panel regression of per capita cultural expenditures of the Swiss cantons and their municipalities (in C CHF)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Intra-cantonal effects (within/over time)</td>
<td>Inter-cantonal effects (between)</td>
<td>Intra-cantonal effects (within/over time)</td>
</tr>
<tr>
<td><strong>SPECIAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (share tertiary)</td>
<td>-0.03 (0.04)</td>
<td>-0.21 (0.11)**</td>
<td>0.01 (0.03)</td>
</tr>
<tr>
<td>Aggregate income PC (in M CHF)</td>
<td>-0.03 (0.01)**</td>
<td>0.04 (0.02)**</td>
<td>-0.02 (0.00)**</td>
</tr>
<tr>
<td>Age (share 0-25)</td>
<td>0.21 (0.04)**</td>
<td>-0.05 (0.10)</td>
<td>0.05 (0.03)</td>
</tr>
<tr>
<td><strong>POLITICAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP (share in CP)</td>
<td>0.01 (0.02)</td>
<td>0.09 (0.04)*</td>
<td>-0.02 (0.01)*</td>
</tr>
<tr>
<td>CVP (share in CP)</td>
<td>-0.07 (0.02)**</td>
<td>0.06 (0.02)*</td>
<td>-0.04 (0.01)**</td>
</tr>
<tr>
<td>FDP (share in CP)</td>
<td>0.03 (0.01)*</td>
<td>-0.06 (0.03)+</td>
<td>0.01 (0.01)+</td>
</tr>
<tr>
<td>SVP (share in CP)</td>
<td>-0.04 (0.01)**</td>
<td>0.03 (0.04)</td>
<td>-0.02 (0.01)**</td>
</tr>
<tr>
<td>Time before CPE (in years)</td>
<td>-0.04 (0.02)</td>
<td>-0.01 (0.01)</td>
<td>-0.01 (0.01)</td>
</tr>
<tr>
<td>Financial referendum (index 0-6)</td>
<td>0.13 (0.08)+</td>
<td>-0.13 (0.14)</td>
<td>0.01 (0.07)</td>
</tr>
<tr>
<td><strong>ECON.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total tax rev. of C&amp;M PC (in C CHF)</td>
<td>0.01 (0.01)+</td>
<td>0.14 (0.03)**</td>
<td>0.01 (0.00)*</td>
</tr>
<tr>
<td>Number of inhab. of largest municip.</td>
<td>1.36 (0.37)**</td>
<td>0.06 (0.18)</td>
<td>0.53 (0.42)</td>
</tr>
<tr>
<td>$W \times y_{ij}$ ($\gamma_i$ of neighboring cantons)</td>
<td>-0.24 (0.09)**</td>
<td>-0.59 (0.11)**</td>
<td>1.38 (0.59)*</td>
</tr>
<tr>
<td><strong>Intercept</strong></td>
<td>-1.41 (5.32)</td>
<td>6.82 (4.86)</td>
<td>-2.40 (3.41)</td>
</tr>
<tr>
<td>Std. Dev. within</td>
<td>0.573</td>
<td>(Null: 0.758)</td>
<td>0.308 (Null: 0.388)</td>
</tr>
<tr>
<td>Std. Dev. between</td>
<td>0.519</td>
<td>(Null: 2.621)</td>
<td>0.484 (Null: 1.761)</td>
</tr>
<tr>
<td>N (canton-years)</td>
<td>497</td>
<td>379</td>
<td>379</td>
</tr>
<tr>
<td>Clusters (cantons)</td>
<td>23</td>
<td>23</td>
<td>23</td>
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Linear random effects panel regression (ML-estimation), decomposing between- and within-effects (hybrid approach), with period controls (not displayed).
Intra-cantonal effects (within): $\beta_k^w (x_{kij} - \bar{x}_{kij})$; Inter-cantonal effects (between): $\beta_k^b (\bar{x}_{kij})$. Coefficients and standard errors in brackets. + p<0.1, * p<0.05, ** p<0.01, *** p<0.001.

Legend:
- **PC**: Per Capita
- **CPE**: Cantonal Parliament Elections
- **SP**: Swiss social-democratic party
- **FDP**: Swiss liberal party
- **CVP**: Swiss christian-democratic party
- **SVP**: Swiss right-wing party
- **CP**: Cantonal Parliament
- **C&M**: Canton & its Municipalities

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one of the cultural domains under study does the time span to the next cantonal parliament election yield any significant effect. This is in line with the rather mixed empirical support for this hypothesis in other studies.

H$_{2c}$ stated, that direct democratic institutions are negatively associated with the amount of cultural spending. Again, this hypothesis can only be partly confirmed. It holds in the case of sports and leisure where cantons with lower hurdles to direct democratic participation appear to have lower expenditures. In the other two models the respective coefficients are not statistically significant. This suggests that people make use of direct democracy rather to inhibit the development of cultural offerings in popular domains like sports and leisure. This might be due to the fact that direct democratic participation is generally biased towards the higher strata of society who, as has been shown before, try to conserve the distinctive value of classical culture.

Finally, taking an economic perspective, one thing is as unambiguous as unsurprising: the higher the tax revenue of a canton, the more it spends on culture; the corresponding inter-cantonal effects are significantly positive in all cultural domains and H$_{3a}$ therefore confirmed. When tax revenue rises, as can be seen by the positive and statistically significant intra-cantonal effect in model 2 of table 1, it is classical cultural expenditures which especially benefit from this increase. Sport and leisure expenditures are unaffected by over-time changes in tax revenue. The latter do, in contrast, clearly profit from the growth of a canton’s central location, as inferred from a positive over-time effect emanating from the number of inhabitants of a canton’s largest municipality in model 3 of table 1. Hence, the economic foundation of their development over time differs between public spending on classical culture and public spending on sports and leisure. Whereas the former is driven by increasing tax revenue, the latter is dependent on the dynamic of key markets.

Geographically, one can ascertain that cultural expenditures of neighboring cantons influence each other. More precisely, as the negative coefficients of the spatial lag term illustrate, cantons having neighbors with higher levels of cultural expenditures spend less on culture themselves. This is even more pronounced in the case of classical cultural expenditures, but also the effect on sports and leisure spending is substantial. Thus, H$_{3c}$ is fully confirmed. Calculating the same hybrid panel model separately for the eight cultural spending domains as dependent variables (not presented here) one finds that the negative spatial lag effect is strongest for libraries and monument and cultural heritage preservation.
5. Summary and discussion

In this paper we took up one of the desiderata of sociology of culture, i.e. the interdisciplinary explanation of public funding for culture and the arts. We did so by adding a sociological perspective to the prevailing determinants discussed in political science and political economy. Since cultural policy is located at the intersection of several societal fields we expected its determinants to represent a complex configuration of social structural, political and economic-geographic factors. We studied this thesis on the basis of data on public spending for culture in the Swiss cantons from 1977 to 2010. This case study enabled us to locate the underlying causal mechanisms in their social and historical context.

Our descriptive analysis of cultural expenditure in Switzerland shows a steady increase over time, however, especially at the end of our observational period, this is the case rather for public funding for culture in the classical sense than for sports and leisure. This increase over time is in line with results for other countries (Getzner 2002). Most striking are the comparative results on the cantonal spending patterns. On the one hand we find mostly alpine cantons spending only small sums on classical culture, which however generously fund sports and leisure and thereby confirm Harry Lime’s philippic about the supposed lack of great culture in Switzerland mentioned in the title of the article. On the other hand, urban cantons like Basel and Geneva exhibit a rather different pattern, supporting classical culture liberally, in the case of Basel especially the visual arts. Hence, in a comparative perspective the 26 Swiss cantons represent something like small worlds of cultural expenditure, changing slowly over time.

Our multivariate analysis of cultural expenditure patterns over time clearly supports our main thesis. Public funding of culture and the arts results from a complex interplay of social structures, political institutions and economic-geographic patterns.

With respect to the social structural variables we find that cantons with a higher share of highly educated persons exhibit lower levels of public spending for classical culture. At the same time, even though cantons with higher aggregate incomes spend more on classical culture, they spend less the richer they become over time. However, this is not true for sports and leisure expenditures which are quite unaffected by a canton’s educational and income structure. This strongly supports the hegemony distinction hypothesis for the Swiss case, especially because it assumes elites’ strategies of distinction to be concentrated on classical culture. Expenditures for sports and leisure, on the other hand, are clearly positively influenced by the share of persons under 25 years, i.e. a canton’s age structure. Though, this does not support the idea put forward in the political economy literature that cultural
expenditure is supported because of a bequest motive. Instead, the result indicates that cantons simply serve the increasing demand for sports and leisure infrastructure engendered by an increasing share of children and youth in their population (use value). Taken together, the fact that classical cultural spending is determined by the canton’s educational and income structure (according to a hegemony distinction logic) and sports and leisure spending by the canton’s age structure (according to a provision logic) clearly points to the importance of taking the social determinants of public spending into account.

Looking at political institutions and parties we find some rather stable effects. In the case of electoral cycles this simply means that they have no effect at all. The strength of direct democracy, in contrast, is in a comparative perspective associated with decreasing public expenditures for sports and leisure. Thus, direct democratic institutions, which are predominantly utilized by higher social strata, are mainly employed to reduce public subsidies for non-classical culture. Regarding the party difference hypothesis results are not as clear-cut. Generally, increasing electoral support for conservative (CVP) and right wing (SVP) parties leads to decreasing levels of public cultural spending. The same is true for left wing (SP) parties, but only in the case of classical culture and to a smaller degree. In contrast, liberal (FDP) parties’ gain in electoral support entails increasing expenditures, mainly for sports and leisure. However, from an inter-cantonal point of view, cantons with higher shares of left-wing and conservative voters still show higher levels of public cultural funding. Thus the party difference hypothesis receives rather ambiguous empirical support, indicating that Swiss parties primarily react to very specific local and regional situations in their political behavior.

Finally, we took economic-geographic factors into account. As expected, cantons with better monetary endowments spend more on all domains of publicly supported culture. Yet, domains differ with respect to the sources of their financial development over time. Whereas spending for classical culture profits from increasing tax revenues, spending for sports and leisure is dependent on growing markets, i.e. the size of a canton’s largest municipality. In addition, cantons react to the amount of spending of their neighbors. More specifically, they reduce their own cultural spending if neighboring cantons raise theirs, which is true for all cultural domains but primarily for classical culture.

In sum, the analyses presented here contribute to a better understanding of general and domain-specific mechanisms of public funding for culture in Switzerland. This is underscored by the fact that the structural, political, economic, and geographic factors included in our models could explain large parts of the over-time- and between-canton variation of the
amount of cultural spending in several domains (compared to the respective null-models). Especially the comparative analysis of determinants of spending for leisure and sports on the one hand and classical cultural expenditure on the other hand indicated that the supporting mechanisms in the two fields follow clearly different logics. Whereas public funding of sports and leisure is stronger in cantons with a greater share of young people, with a lower level of direct democracy, and bigger central locations, support for classical culture is stronger in cantons with a smaller share of tertiary educated persons, tends to diminish, the richer a canton gets, and tends to increase with tax revenue. In sum, the support for classical culture seems to follow a hegemony distinction-approach, where educated elites attempt to restrict the provision of classical culture. However, disentangling these different logics requires further research to descend from the macro perspective taken in this paper and focus more on the micro mechanisms of decisions in different fields of public expenditure, e.g. by doing case studies on parliamentary decisions or by a comparative analysis of voting in referenda on culture on the one and sports and leisure on the other hand.

6. References


