
Original Article

Conducive contexts: The impact of collective and individual social capital on democratic citizenship

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Abstract Social capital is considered to be crucial for democratic politics. Its benevolent consequences can be attributed to two substantively different modes of social capital. Understood as an individual property the impact of social capital will be mainly restricted to those who command these resources. A much less researched approach depicts social capital as a collective good; that is, as a property of distinct societies whose impact everybody will feel. The main question of this study is: How do these individual and collective modes of social capital influence democratic citizenship in Western democracies? Multi-level modeling is used to test the impact of the two distinct modes of social capital, as well as their interactions using survey data for 28 democracies extended with indicators for collective social capital. The analyses show that living in a country rich on social capital contributes to democratic citizenship beyond the positive effects of individual social capital. Moreover, especially environments richer on collective social capital activate citizens with high levels of individual social capital are more to be politically active than less equipped environments. Apparently, those who are already privileged in terms of individual social capital will profit most from a social capital rich environment.

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Introduction: Making Democracy Work?

In the last two decades the concept ‘social capital’ has been introduced as a remedy for a number of social problems, and as the only feasible way to combine the claims and expectations of an emancipated and individualized citizenry with the requirements of democratic decision-making processes. These assertions are not characterized by modesty: ‘... social capital makes us smarter, healthier, safer, richer, and better able to govern a just and stable democracy’ (Putnam, 2000, p. 290). This conclusion can be based on two substantively distinct understandings of social



capital as an individual property or as a collective good. Although political scientists have conceptualized social capital frequently as a collective phenomenon, (cf. Stolle and Rochon, 1998; Newton, 2001; van Deth, 2001; van Deth, 2003) it has not been examined to a greater extent. The goal of this study is to examine how social capital as a collective good affects democratic citizenship of individual citizens and to show how it is related to effects of social capital as an individual property. In other words, the crucial question to wit is ‘... *whose capital is at issue: that of the individual or the community?*’ (Inkeles, 2000, p. 247; emphasis original). Specifically, we ask: How do distinct modes of individual and collective social capital affect individual democratic citizenship (political engagement and evaluation of politics) in Western democracies?

In order to disentangle the political consequences of different levels of social capital we will, first, differentiate between individual and collective conceptualizations of social capital and develop various theoretical mechanisms presumed to influence democratic citizenship. Although individual social capital increases democratic citizenship only for those people who possess individual social capital, collective social capital should motivate all citizens to ‘make democracy work’ (Putnam, 1993). Collective social capital – providing a stimulating social and cultural environment – decreases transaction costs of collective engagement for everybody beyond her personal levels of social capital and other resources, and puts social pressure on individual citizens to comply with conventional ideas about ‘decent’ behavior. Moreover, the two modes of social capital can interact in their effect on individual attitudes and behavior. Our analyses, therefore, will pay attention to the combined impacts of various levels of individual and collective social capital in order to trace possible compensational or amplifying effects in Western democracies.

We test the effects of different modes of social capital on democratic citizenship with multilevel regression-models using the International Social Survey Programme 2004: Citizenship (ISSP 2004) data from 37 366 individuals living in 28 democracies supplemented with country-level indicators. The results clearly support the need to distinguish between individual and collective social capital because both have independent positive effects on democratic citizenship. Besides, they also positively interact with each other: those who are already privileged in terms of individual social capital will profit most from a social capital rich environment.

Social Capital

The term social capital is used to refer to ‘... features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions’ (Putnam, 1993, p. 167). Most authors define two crucial dimensions of social capital: cultural aspects, which include mainly trust and confidence, and structural aspects, which cover mainly activities in institutionalized networks such as voluntary associations (cf. Coleman, 1990; Esser, 2008).



Modes of social capital can be distinguished by specifying its locus as an individual property or as a collective good (Esser, 2008).¹ Social capital conceived as a property of individuals draws mainly on sociological understandings of the concept (Bourdieu, Coleman, Lin), which locate social capital in social relations and networks between individuals or their groups (van Deth, 2003; Stolle, 2007; Edwards, 2009). On the other hand, social capital can be understood as a collective good, by definition available to each citizen (cf. Newton, 2001; van Deth, 2001; Stolle and Rochon, 1998; van Deth, 2003). As Newton (2001, p. 207) remarks: ‘... if social capital is anything, it is a societal not an individual property, and should be studied as a social or collective phenomenon, not at the individual level as if it were a property of isolated citizens’. Distinguishing the two modes of social capital is highly relevant, first, because different people are affected in different ways by the distributions of individual and collective social capital. Second, whereas each citizen can invest in individual social capital ‘... by means of “individual” actions’ one cannot invest individually in collective social capital ‘... because that is a case of “collective” action’ (Esser, 2008, p. 47).

Studies of the impact of social capital on citizen politics usually focus on individual-level mechanisms: socially active citizens will be more trusting and consequently will be more supportive of democracy and more willing to be politically engaged (cf. van Deth, 2000; Norris, 2002; Paxton, 2002; Freitag, 2003; Mouw, 2006; Bäck and Kestiliä, 2009; Stolle and Harell, 2013). Furthermore, various studies show cross-sectional relationships on the regional or national level between social capital and voter turnout and other modes of political participation (van Deth, 2001; Putnam, 2000; Paxton, 2002; Benson and Rochon, 2004). Aside from a few exceptions (Letki, 2006; Meulemann, 2008; Whiteley *et al.*, 2010) these studies do not analyze collective social capital as a context for individual behavior and attitudes, but focus on its effects on aggregate characteristics. Even less attention has been paid to the consequences of the interaction between the availability of social capital as a collective good and the individual equipment of social capital (but see van Deth, 2008). What is lacking, then, is *an integrated approach empirically examining the distinct impacts of individual and collective modes of social capital and examining the effects of individual social capital under distinct levels of collective social capital.*

Furthermore, most studies testing social capital theories usually examine the effect of social capital only on one type of outcome, that is, they study either political trust, voting and so on. However, the importance of social capital approaches lies in the fact that it covers not some specific orientation or type of behavior but that it claims to explain the functioning of democracy in more general terms. In the realm of citizen politics, social capital is presumed to be crucial for citizenship and it should result – rather indiscriminately – in higher levels of political interest, political trust, support for democracy and political participation (Putnam, 1995). Hence, in order to provide a more robust test of this approach, we examine a range of observable implications of the theory. Specifically, we focus on the concept ‘democratic citizenship’ that is

widely used in political, social and academic debates about democracy. For example, the Council of Europe defines it as the capabilities of citizens ‘... to exercise and defend their democratic rights and responsibilities in society, to value diversity and to play an active part in democratic life’ (www.coe.int/t/dg4/education/edc/Charter/Charter_EN.asp; cf. Conover *et al*, 1991; Janoski, 1998; Schudson, 1998; van Deth, 2007). Nie *et al* (1996) speak of democratic citizenship as ‘enlightened political engagement’ composed of two dimensions: ‘... those qualities of citizenship that encourage understanding of and adherence to norms and principles of democracy’ and ‘... behaviors and cognitions that enable citizens to pursue and protect self-interest in politics’ (pp. 5–6). Our empirical tests will hence focus on individual aspects of democratic citizenship covering both political evaluations and political engagement.

Individual social capital

A first set of expectations about the impact of social capital on democratic citizenship is based on the conceptualization of social capital as an individual property (van der Gaag and Snijders, 2004; Lancee, 2010). As indicated above, the two main aspects of each mode of social capital are social relationships (especially involvement in voluntary associations) and pro-social norms (especially trust). According to neo-Tocquevillean approaches re-occurring social contacts – as offered especially in voluntary associations – bring people in touch with each other on a regular basis. Although these opportunities are certainly not equally available in every association, the aims, goals or character of associations are largely irrelevant according to the theory. Instead, institutionalized aspects of associations are of crucial importance: contacts offered on a regular basis enable continuous learning processes and the development of trust and norms of reciprocity. In this way, networks provided by associations are different from social contacts with relatives, friends or neighbors, which usually do not offer institutionalized contacts. As a consequence, people active in associations will develop skills and competences to collaborate as well as mutual trust and pro-social norms – which will motivate them to cooperate further (cf. Stolle, 1998; Stolle and Hooghe, 2004; Stolle and Harell, 2013).

Individual social capital also provides an individual with access to resources owned by people in her personal social network that, in turn, will facilitate collaboration (van der Gaag and Snijders, 2004). Generally speaking, neo-Tocquevillean approaches are based on the presumption that recurring social contacts and rational evaluations of available opportunities result in support for collective arrangements. Individual social capital decreases transaction costs of being involved in common affairs because, in trustful relationships, fewer resources are required to guarantee compliance than in other contacts (Ripperger, 1998, pp. 26, 181). A more critical approach, stressing the fact that individuals with high levels of individual



social capital simply can afford to enter potentially risky arrangements (Newton, 2001) results in the same expectation.

Applied to democratic citizenship this line of reasoning implies that citizens with relatively high levels of individual social capital will hence be more willing to ‘make democracy work’ than people confronted with higher opportunity costs in their direct social environment, because recurring contacts improve their social skills, stimulate democratic virtues and provide access to other resources. As Paxton (2002, p. 257) explains these networks are especially important for the transition to democracy (providing spaces of critical discourses and active opposition citizenship), as well as for the persistence of democracy (citizens do not remain isolated but are integrated in associations). Our first hypothesis, then, deals with the expected consequences of individual social capital for democratic citizenship:

Hypothesis 1: Citizens with relatively high levels of individual social capital will show relatively high levels of democratic citizenship.

Collective social capital

In contrast to individual social capital, collective social capital is a collective good – that is, an ‘important resource available to societies and communities’ (Hooghe and Stolle, 2003, p. 1). The expected influence is based primarily on the fact that the advantages of collective social capital are available to all citizens embedded in the same context. This influence has been identified as the ‘rainmaker effect’ (Putnam *et al.*, 2000) or more generally as a ‘spill-over effect’ (Uslaner, 2002, Chapter 5).

Here, two mechanisms can be discerned. First, in environments rich on collective social capital individuals can rely on the fact that they live in a context where democracy actually ‘works’ well. Societies with a dense and active civil society offer relatively easy access to generally widespread trustful relationships in the realm of politics and in all kinds of networks, lowering the opportunity costs for engagement and compliant behavior for all citizens in this society. In such contexts, involvement implies lower costs – and especially lower risks –, and higher benefits than in societies that provide less collective social capital. Stressing a lack of social capital Hooghe and Zmerli (2011, p. 2) remark: ‘... the underlying logic seems to be that if citizens feel the authorities can no longer be trusted, there is less reason to comply with social norms’. Because fewer resources are required to guarantee compliance, collective social capital decreases the transaction costs of cooperation and collective action for everybody and not only for people involved in networks (Jordana, 1999; van Deth, 2001). Applied to democratic citizenship, a reduction of transaction costs implies that support for democratic virtues and the willingness to be socially and politically active will be more likely.

A second mechanism relating collective social capital to democratic citizenship is based on social pressures to obtain compliance and conformity (cf. Feldman, 1985). Whereas, individuals living in an environment with a high level of collective social capital will be tempted to accept collaboration and trust as desirable or normal, people confronted with less collective social capital will conclude the opposite. Again this holds for all citizens; that is, people in general will be more likely to respect norms and obligations of community life in contexts relatively rich on collective social capital (Letki, 2006, p. 308). Specifically, in societies with high levels of collective social capital, being interested in politics or casting a vote is considered to be a norm that should be followed. This willingness to consent is not based on ‘... one’s self-interest’, but on ‘... a feeling of obligation or responsibility that leads to self-regulatory behavior’ (van Deth, 2001, p. 9). On the basis of the two mechanisms we expect:

Hypothesis 2: The higher the level of collective social capital in a society, the higher the level of democratic citizenship is.

Individual and collective social capital combined

The two modes of social capital can also have combined (multiplicative) effects, which mean that one mode of social capital conditions the effect of the other type. Although collective social capital facilitates democratic citizenship of all people in a given society, it probably will affect those who already have individual social capital stronger than people with lower levels of individual social capital. Because individual social capital can be more easily and more effectively transformed into democratic citizenship under more supportive conditions, the expected benefits of investing individual social capital are higher in capital rich societies than in less fortunate environments. Under unsupportive conditions the benefits are insecure and probably relatively low. Referring to Letki (2006) specifies a mechanism of ‘ethical reciprocity’, which in general means that people are willing to follow their existing internal norms as long as everyone else is also contributing: ‘Ethical reciprocity rests on a desire to behave fairly and is reinforced by evidence that others are doing their part’ (Letki, 2006, p. 25). Therefore, if a person is having a certain amount of individual social capital observes that other people in a given community contribute as well, she will be more likely to collaborate and contribute to the production of collective goods. Collective social capital, then positively conditions the effect of individual social capital (for similar arguments on ‘cross fertilization’, see Welzel, 2013). On this basis, we expect that:

Hypothesis 3: The impact of individual social capital on the level of democratic citizenship is stronger if the level of collective social capital is higher.



Operationalization, Data and Methods

For empirical tests of our hypotheses information about individual citizens and their specific contexts is required. Individual data comes from the ISSP (2004) ‘citizenship module’, which, unlike other comparative surveys, has measures for individual social capital (mainly a battery on voluntary associations) as well as a wide range of aspects of democratic citizenship, and covers a large number of western style liberal democracies (also outside Europe).² There are data from 37 366 individuals living in 28 democracies in North America, European Union member states, Norway, Switzerland, New Zealand, Australia, Taiwan, Japan, South Korea and Israel. This data are supplemented by contextual indicators for collective social capital and other relevant features (see below).

Individual social capital

Individual social capital is measured by a composite indicator combining the two major aspects of social capital: involvement in voluntary associations and social trust. ISSP (2004) covers four types of voluntary associations – trade unions, church groups, sports and cultural groups, and other groups. Involvement in these organizations is measured on a 4-point scale: active member, inactive member, former member and non-member. Factor analysis (PCA) using polychoric inter-item correlations (as the data is ordinal level) performed on these four items in the pooled data set shows that the variables create one component (loadings for trade unions = 0.62, church groups = 0.60, sports and cultural groups = 0.79, other groups = 0.79). The resulting additive index for ‘group membership’ is based on the average score (Cronbach’s $\alpha = 0.56$).

Social trust is measured as an index compiling answers to the statements ‘People can be generally trusted’ and ‘How often will people try to cheat on you?’. Responses range from 1 to 4 with higher values indicating more trust. The resulting index for ‘social trust’ is based on the average score (Spearman $\rho = 0.39$, Cronbach’s $\alpha = 0.53$).

Since social capital is theorized to be a single concept composed of civic involvement and social trust that are ‘tangled as well-tossed spaghetti’ (Putnam, 2000, p. 137) we create a composite measure of individual social capital (average of added scores). While the two variables are modestly related (Pearson $r = 0.22$, Cronbach’s $\alpha = 0.36$), all analyses were rerun with the two variables entered separately as a robustness check. The results do not reveal any substantial differences with the results obtained with the composite measure. For theoretical reasons the main analyses uses the composite measure because social capital is neither only networks nor only social trust, but a combination of both.

Collective social capital

Following the conceptualization of political culture as the distribution of attitudes in a political system (Almond and Verba, 1963), we measure collective social capital as a so-called analytical contextual property by aggregating features of individual citizens of a particular country (Lazarsfeld and Menzel, 1962). Collective social capital is measured with the distributions of social trust and associational membership in a particular society (Letki, 2006; Whiteley *et al.*, 2010). These aggregated measures correspond closely to Putnam's idea of social capital as a bottom-up phenomenon originating in everyday routine practices of ordinary citizens (Putnam, 1993; Tarrow, 1996). Other conceptualizations of collective social capital focusing on global instead of aggregated features – such as data on civil society or corruption levels (van Deth, 2003) – do not capture this aspect of collective social capital and rather refer to the functioning of institutions.

National contexts probably are the most relevant environments for the impact of collective social capital. Although several authors opt for the local or regional level (Beugelsdijk and van Schaik, 2005; Letki, 2006; Freitag and Kirchner, 2011), especially political, economic and institutional arrangements are mainly defined at the national level. Even in an increasingly globalized world, the national state remains the main point of orientation for most citizens. Moreover, there is much larger variation across countries in collective social capital than there is across regions within countries.³ Since collective social capital is considered to condition the impact of individual social capital (see Hypothesis 3), the first is measured temporally before the second. To measure collective social capital we use the European and World Value Surveys Integrated Data File 1999–2002. This assures that collective social capital is measured 2–5 years earlier than individual social capital.⁴

To measure the level of collective social capital in a country the percentage of people in that country who are member in at least one voluntary association is used for the structural aspects, and the percentage of people who trust others for the cultural aspects (see Inglehart and Welzel, 2005; Letki, 2006). Just as with the measures for the two aspects of individual social capital the scores on the two variables are averaged.⁵ The resulting measure for the level of collective social capital indicates the relative share of people with social capital in a given country (Pearson $r = 0.73$, Cronbach's $\alpha = 0.80$).

All analyses were rerun with the two measures for different aspects of collective social capital entered into the models separately to check whether the results are driven by one of the aspects only. The findings are substantively the same as for the composite measure showed here. Furthermore, all analyses run with indicators for collective social capital constructed from the individual-level indicator of social capital from the ISSP data show essentially the same results (only the effects are stronger).



Democratic citizenship

Following the already mentioned approach of Nie *et al* (1996), who conceptualize two dimensions of democratic citizenship – political evaluations and political behavior – we use four major indicators covering these dimensions that are available in the ISSP (2004): political satisfaction for the evaluative/normative dimension, and voting, non-electoral participation and opinion leadership for the engagement dimension. The various measures are constructed in the following ways:

- Political satisfaction is measured with the average of an additive index of three items assessing agreement with the statements ‘politicians can be trusted’ and ‘people are in politics only because of personal profit’ (the response categories for both questions range from 1 to 5, and higher values indicate higher levels of trust) and satisfaction with democracy in a particular country (the responses measured on a 10-point scale). Factor analysis (PCA) of the pooled data extracts a single factor (loading for trust into politicians = 0.75, politicians personal profit = 0.77, satisfaction with democracy = 0.75). The final measure was rescaled to range from 0 to 1 (Cronbach’s $\alpha = 0.62$). The Intra-class Correlation Coefficient (ICC; see Snijders and Bosker, 2012), which indicates the amount of variation that can be attributed to potential contextual effects among the 28 democracies is, 21 per cent.
- Voting is indicated by the question on turnout in the last national parliamentary election: 1 means that the person took part in the elections, 0 means all other responses (ICC = 14 per cent).
- Non-electoral participation is indicated by a summated rating index for participation in six political activities in the last 12 months: signing a petition; taking part in a demonstration; attending a political meeting or rally; contacting a politician or a civil servant to express one’s views; donating money or raising funds for a social or political activity; boycotted or deliberately bought certain products for political, ethical or environmental reasons; contacting or appearing in the media to express one’s views. Factor analysis (PCA) using tetra-choric inter-item correlations (as the data is nominal level) of the pooled data extracts a single factor (loadings for signing a petition = 0.72, demonstrating = 0.72, attending a meeting = 0.80, contacting a politician = 0.76, donating money = 0.68, boycotted certain products = 0.68, contacting media = 0.74). The individual scores are averaged and the index was then rescaled to range from 0 to 1 (Cronbach’s $\alpha = 0.64$; ICC = 14 per cent).
- Political opinion leadership is measured by the questions on the frequency of political discussion with others, and attempts to convince others of one’s political opinion. These two variables are measured on a 4-point scale. The individual scores were averaged and the index was then rescaled to range from 0 to 1 (Spearman $\rho = 0.56$; Cronbach’s $\alpha = 0.72$; ICC = 6 per cent).⁶

Controls

At the individual level, standard socio-demographic factors are used as controls. Age is measured as a continuous variable. Education is indicated by years of schooling completed. Income is measured as family income. Sex is coded as 0 for males and 1 for females. In addition, three attitudinal controls are included that are considered as main determinants of political attitudes and especially behavior. Subjective political interest is measured with a straightforward question ‘How much are you interested in politics?’, with four response categories offered. The last two controls cover the level of political efficacy. External efficacy is measured with an additive index (from 1 to 5) of two items assessing agreement with the statements ‘no influence on what government does’ and ‘government does not care what I think’ (Cronbach’s $\alpha=0.70$). Internal efficacy is measured with an additive index (from 1 to 5) of two items assessing agreement with the statements ‘good understanding of politics’ and ‘most people better informed than I am’ (Cronbach’s $\alpha=0.45$). Political satisfaction is included in all models as a control (except, of course, in models that include this variable as a dependent variable).

At the country level we control for economic development and the democratic history in all models. The level of economic development is measured as a country’s GDP per capita (PPP US\$) in 2003.⁷ Democratic history is measured by the number of years the country has been democratic as of 2003.⁸ Furthermore, several controls relevant for particular dependent variables are included, such as the electoral system for voting (reference category = majoritarian, 1 = proportional, and 2 = mixed system) and indicators for the political opportunity structure (POLCON V measure, see Henizs, 2002) for non-electoral participation.

Analyses

As the data reflect a multi-level structure, where individuals at the first level are nested in countries representing the second level, multi-level modeling is employed. Specifically, we use linear multi-level regression to analyze the numeric dependent variables. As in standard linear regression models the coefficients can be interpreted as estimates for the unit change in the dependent variable for one unit change in the independent variable. Since voting is a binary variable, we use multi-level logistic regression in this case. The fixed effects represent unstandardized regression coefficients on the logit scale.⁹ Following a strategy proposed by van der Meer *et al* (2010) influential country cases are included as dummy variables in the final model estimates. Since the number of influential cases is relatively high in some computations, we present the final results for models with the lowest number of influential cases that show the same results as models with all influential cases included.



The Empirical Consequences of Social Capital

Table 1 summarizes the main results of the analyses (full Tables can be obtained from the first author). Model I show the results for individual social capital plus controls (Hypothesis 1) and Model II for collective social capital plus controls (Hypothesis 2). Model III present the results for the combined impact of individual and collective social capital. Finally, Model IV show the results for the interaction effects of individual and collective social capital (Hypothesis 3).

The results in the first rows for Model I in the upper and lower parts of Table 1 confirm that individual social capital has a significant positive effect on democratic citizenship; that is, on all variables under study. Hypothesis 1, then, is corroborated by the empirical findings. These results support neo-Tocquevillean theoretical interpretations based on individual-level mechanisms, which argue that people possessing higher level of social capital will be relatively strongly satisfied with politics and be more engaged in politics. Although this is a classical expectation of social capital theory, not all studies have found support for these effects (cf. Norris, 2002; Armingeon, 2007).

The second rows for Model II in Table 1 show the results for the effects of collective social capital without taking into account individual social capital. With one exception all coefficients are significant and positive, thereby supporting Hypothesis 2 even when other contextual factors such as economic development and political institutions are taken into account. In line with our hypothesis, people living in national contexts richer in collective social capital show relatively high levels of political satisfaction and political opinion leadership, and are also more likely to vote than people living in countries with less collective social capital. A remarkable exception here is non-electoral political participation: collective social capital apparently does not affect individual participation in non-electoral politics. This finding is in line with results from other studies that explain similar findings with the consensual and cooperative character of social capital rich societies, that might facilitate other outcomes (as supported by other results of this study) but not non-electoral participation for which a competitive political environment is much more important (Vráblíková, 2014). A competitive political environment provides chances for opposing interests, which usually is an indispensable condition for non-electoral participation.

Model III in Table 1 test whether the effects of collective social capital are actually independent of contextual effects or can be reduced to the effects of individual-level social capital. The general finding is that the effects displayed in Models I and II remain more or less the same – both individual and collective social capital have significant and positive effects on all of the dependent variables (the only exception is, again, non-electoral participation). These results show that the effect of collective social capital is not mediated by individual social capital. Collective social capital increases political satisfaction, opinion leadership and voting beyond the effect of

**Table 1:** Social capital and democratic citizenship

	Political satisfaction				Voting			
	Model I	Model II	Model III	Model IV	Model I	Model II	Model III	Model IV
<i>Social capital</i>								
Individual	0.067*** (0.01)	—	0.066*** (0.02)	0.069*** (0.05)	0.608*** (0.05)	—	0.605*** (0.05)	0.626*** (0.06)
Collective	—	0.002*** (0.01)	0.002*** (0.01)	0.001** (0.01)	—	0.019*** (0.07)	0.016* (0.07)	0.015* (0.07)
Individual × Collective	—	—	—	0.001 (0.01)	—	—	—	0.012*** (0.03)
<i>Random effects</i>								
ICC %	21	—	—	—	14	—	—	—
Individual level	0.004***	0.002***	0.001***	0.001***	1	1	1	1
Collective level	0.024***	0.025***	0.024***	0.024***	0.487***	0.150***	0.152***	0.161***
% explained individual level	18	16	18	19	24	23	25	32
% explained collective level	52	81	85	86	12	73	73	71
% explained total	25	30	32	33	22	30	31	32
% explained individual-level social capital	—	—	—	9	—	—	—	74
Intercept	0.468*** (0.01)	0.471*** (0.01)	0.470*** (0.01)	0.468*** (0.01)	1.68*** (0.14)	1.91*** (0.31)	1.92*** (0.31)	1.91*** (0.32)
Log Likelihood	10 185	9845	10 201	10 238	-8457	-8518	-8441	-8430
BIC	-20 260	-19 468	-20 241	-20 285	17 023	17 226	17 082	17 089
Individual-level N	22 921	22 921	22 921	22 921	21 847	21 847	21 847	21 847
Collective-level N	28	28	28	28	28	28	28	28



	Non-electoral participation				Political opinion leadership			
	Model I	Model II	Model III	Model IV	Model I	Model II	Model III	Model IV
Social capital								
Individual	0.093*** (0.01)	—	0.093*** (0.01)	0.089*** (0.01)	0.046*** (0.01)	—	0.046*** (0.01)	0.044*** (0.01)
Collective	—	0.001 (0.01)	-0.001 (0.01)	0.001 (0.01)	—	0.001*** (0.01)	0.001* (0.01)	0.001*** (0.01)
Individual* Collective	—	—	—	0.001*** (0.01)	—	—	—	-0.001 (0.01)
Random effects								
ICC %	14	—	—	—	6	—	—	—
Individual level	0.002***	0.001***	0.001***	0.001***	0.002***	0.001***	0.001***	0.001***
Collective level	0.027***	0.028***	0.027***	0.027***	0.044***	0.044***	0.044***	0.044***
% explained individual level	17	12	17	19	33	32	33	33
% explained collective level	57	84	86	78	55	70	71	69
% explained total	22	22	26	26	34	34	35	35
% explained individual-level social capital	—	—	—	29	—	—	—	0
Intercept	0.121*** (0.01)	0.115*** (0.01)	0.114*** (0.01)	0.111*** (0.01)	0.454*** (0.01)	0.457*** (0.01)	0.456*** (0.01)	0.456*** (0.01)
Log Likelihood	8283	7743	8298	8397	3269	3184	3275	3283
BIC	-16 447	-15 316	-16 417	-16 584	-64 18	-61 98	-63 70	-63 57
Individual-level N	21 448	21 448	21 448	21 448	22 767	22 767	22 767	22 767
Collective-level N	28	28	28	28	28	28	28	28

Level of significance: * $P \leq 0.05$, ** $P \leq 0.01$, *** $P \leq 0.001$.

Unstandardized regression coefficients and standard errors in parentheses are displayed of multi-level linear regressions (multi-level logit regressions for voting). Controls included: gender, age, income, years of schooling, internal and external efficacy, political interest, political trust, satisfaction with democracy, GDP per Capita (PPP), democratic history, electoral system, effective number of political parties, political opportunities, and influential country cases. Continuous factors entered as grand-centered and standardized 0-1.

individual social capital (and beyond the effect of other contextual factors such as economic development or political institutions). This finding, again, corroborates our first two hypotheses.¹⁰

To illustrate the size of the effects of individual and collective social capital, we calculated differences in the predicted values of the dependent variables when the minimal and maximal value of the two measures of social capital are compared while keeping all other variables at their mean values. A change from the lowest level of individual social capital to the highest level reveals an increase in political satisfaction of 20 per cent, in voting of 21 per cent, in non-electoral participation of 28 per cent, and in opinion leadership of 14 per cent on the scales of the dependent variables while keeping all other variables at their means. The same comparison in the case of collective social capital, that is, comparing the outcome between the country with the highest level of collective social capital in our data set (Sweden) with the country with the lowest level (Portugal) and all else equal, increases political satisfaction by 9 per cent, voting by 11 per cent, and opinion leadership by 8 per cent. Though the effects of collective social capital only reach halve the strength of the effects of individual social capital, collective social capital still has a notable effect on the dependent variables under study.

Do levels of individual and collective social capital show interaction effects on democratic citizenship? The interaction Hypothesis 3 states that the effects of individual social capital on democratic citizenship are especially stimulated by an environment rich of collective social capital. Model IV corroborate this expectation only for non-electoral participation and voting.¹¹ The effects of individual social capital on these two modes of political participation, indeed are significantly stronger the higher the level of collective social capital is. The combined effect of individual and social capital on political opinion leadership and satisfaction with politics is not significant, which implies that individual social capital affects these indicators irrespective of the level of collective social capital.

Figure 1 explores the conditional effects of social capital on voting and non-electoral participation into more detail. For the sake of an accessible presentation the level of individual social capital is categorized into three equal groups representing people with low, middle and high levels of individual social capital.¹² The figure shows that particularly lines representing groups with high levels of individual social capital have a much steeper positive slope than the other two categories. This interaction pattern is strongest for non-electoral participation. While collective social capital does not matter at all for non-electoral participation of people with the lowest level of individual social capital (as the effect of low levels of individual social capital does not change with collective social capital), it increases non-electoral participation of people who already possess higher levels of individual social capital. A similar interaction pattern is shown for voting. Evidently, collective social capital boosts

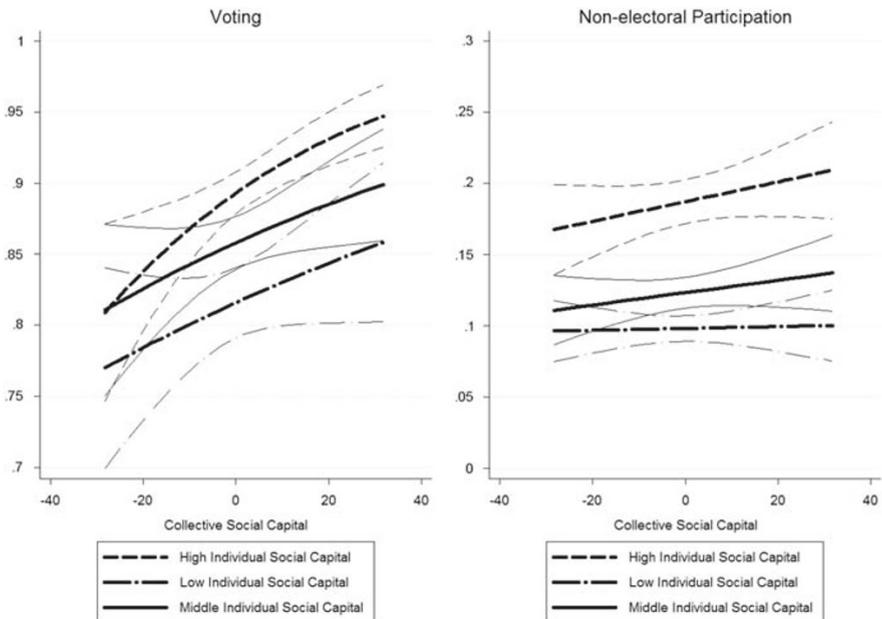


Figure 1: Voting and non-electoral participation by individual and collective social capital.

Note: The figure displays predicted voting and non-electoral participation and 90 per cent confidence intervals for three groups of individual social capital by the level of collective social capital.

the likelihood of voting very substantially among people with a high level of individual social capital. In contrast to non-electoral participation, collective social capital has a relatively large direct effect on voting as also the categories of middle and low of individual social capital show a positive slope.

The fact that the combined effects of individual and collective social capital are different across various indicators of democratic citizenship suggests that no single or common mechanism accounts for all aspects of democratic citizenship alike. Why is the interaction significantly positive only for two indicators of democratic citizenship? A possible explanation is that for people to get involved in politics in general, mobilization (usually taking place through personal involvement in social networks and with socially trustworthy people) is a necessary condition to become active. As the case of non-electoral participation shows, the effect of the external environment (collective social capital) is fully dependent on this condition. This might suggest that a high level of collective social capital boosts mobilization and recruitment into participation through individual social capital rather than by decreasing transaction costs of transforming individual social capital into various kinds of democratic citizenship.

Conclusions and Discussion

The main argument presented here is that a conceptual distinction between different modes of social capital – individual versus collective – should be taken seriously and examined empirically. We showed that individual and collective social capital both have independent positive effects on democratic citizenship: political satisfaction, voting, political opinion leadership (but not on non-electoral participation). Besides, in the case of voting and non-electoral participation individual and collective social capital also positively interact with each other. These findings show that the social capital promotes democratic citizenship not only as an individual resource but in addition also as a collective good that benefits everybody residing in contexts rich on social capital. Especially the finding on the contextual effects of collective social capital is important as it supports the core idea that social capital is a valuable societal resource.

Some normative implications of these findings are evident. Although general improvements of the levels of both types of social capital can be expected to have positive effects on democratic citizenship, those who are already privileged in terms of individual social capital will profit most from a social capital rich environment. Since this combined effects will be relatively strong for countries already rich on social capital the most likely result will be an increasing gap between individuals with high and low levels of social capital. This seems to be another variant of the ‘Matthew Effect’: those who have more will get more, and those who have less will get slightly more but will remain in a relatively deprived position. This means that, although collective social capital strengthens democratic citizenship of all citizens, it reproduces and increases the gap in democratic participation among citizens. In contexts rich on collective social capital, those who already control a high level of individual social capital ‘make democracy work’ to a much greater extent than those who lack that mode of capital. Hence higher individual and collective social capital has also its dark-side as it reproduces and increases inequality in democratic participation. Distinctions between individual and collective modes of social capital, therefore, are not only relevant for scholarly discussions about the empirical validity of various approaches to the prerequisites of vibrant democracies. Much more importantly, only this differentiation allows us to detect ‘Matthew Effects’ which lead directly to the question of (un)equal participatory opportunities for citizens in democratic societies.

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Notes

- 1 Obviously, distinct characterizations of social capital can also be based on the presumed directions of potential effects (bonding versus bridging, positive versus negative, connected versus isolated, good versus bad forms). Since our interest here is on the impact of different *modes* of social capital we do not distinguish between specific *forms*.
- 2 Data and questionnaire of the ISSP (2004) study are available at: zacamcat.org/webview/index.jsp?object=zacamcat.org/obj/fstudy/ZA3950.
- 3 For instance, analyses based on data on social capital used by Freitag and Kirchner (2011) from 134 regions in 14 European countries shows that 83 per cent of the variation exists across countries and only 17 per cent can be found across regions.
- 4 Data and questionnaire of the third wave of the WVS are available at: www.worldvaluessurvey.org/wvs/articles/folder_published/survey_2000.
- 5 Other studies of the contextual effects of political culture (for example, Welzel and Deutsch, 2012; Welzel, 2013) use a national average of the individual-level composite measure of cultural values. However, the collective aspect of social capital consists in its spread across the country, rather than in the country's central tendency that does not need to indicate the level of prevalence of such culture among the public. Moreover, social capital does not have a single-peak distribution clustered around the mean (see Welzel and Deutsch, 2012). The analyses run with the country averages of the individual-level indicator of social capital from the ISSP citizenship data show substantively the same results as presented in this study.
- 6 Obviously, these four indicators of democratic citizenship are positively but modestly correlated (bivariate correlations are for most combinations are lower than 0.17), which indicates that the indicators selected are not redundant but cover different aspects of democratic citizenship. Although political opinion leadership and non-electoral participation correlate stronger ($r = 0.33$), we keep them as separate concepts because other literature has emphasized differences between them and, more importantly, because our study also shows different effects of collective social capital on the two outcomes.
- 7 Data are obtained from the International Monetary Fund available at: www.imf.org/external/pubs/ft/weo/2011/02/weodata/index.aspx.

- 8 Data are obtained from the ‘Democracy Timeseries Data’ available at: www.hks.harvard.edu/fs/pnorris/Data/Data.htm.
- 9 As in other nonlinear probability models the variance of the residual variance at the individual level is fixed at a constant. The residual variance at the individual level signifies a scale factor 1 (i.e. that the model is assumed to hold precisely), which in case of a binomial distribution translates into $\pi^2/3 = 3.29$ (Hox, 2002, Chapter 6).
- 10 The likelihood-ratio tests comparing the log-likelihood of the models show that, with the exception of Model I for political opinion leadership, Model III are significantly better than Models I and II. Specifically, the statistics testing Model I nested in Models III are for political satisfaction 31.60***, for voting 31.11***, for non-electoral participation 29.87***, and for political opinion leadership 0.0617. The statistics testing Model II nested in Model III are for political satisfaction 712.77***, for voting 154.40***, for non-electoral participation 1110.80*** and for political opinion leadership 182.27***.
- 11 The likelihood-ratio tests comparing the log-likelihood of the models show that Model IV are significantly better than Models I, II and III. Specifically, the statistics testing Model I nested in Model IV are for political satisfaction 104.69***, for voting 53.80***, for non-electoral participation 226.82*** and for political opinion leadership 28.57***. The statistics testing Model II nested in Model IV are for political satisfaction 785.86***, for voting 177.09***, for non-electoral participation 1307.75*** and for political opinion leadership 198.83***. The statistics testing Model III nested in Model IV are for political satisfaction 73.09***, for voting 22.69***, for non-electoral participation 196.95*** and for political opinion leadership 16.56***.
- 12 Figure 1 is hence constructed on the basis of a different model than Model IV presented in Table 1. Model IV includes both individual and collective social capital as quantitative variables, which cannot be graphed as predicted values (only marginal effects can be graphed; figures of all marginal effects can be obtained from the first author). From this reason, a modified model using individual social capital as a categorical variable was run (not displayed) and used to create Figure 1.

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