Civic Engagement and Corruption in 20 European Democracies: Separating the Bright from the Dark Side?

Nicolas Grießhaber [a] and Benny Geys [b, c] [*]

[a] *Department of Politics and Management, University of Konstanz, PO Box 84, D-78457 Konstanz, Germany*
e-mail: *nicolas.griesshaber@uni-konstanz.de*

[b] *Norwegian School of Management (BI), Nydalsveien 37, N-0442 Oslo, Norway*

[c] *Wissenschaftszentrum Berlin für Sozialforschung (WZB), Reichpietschufer 50, D-10785 Berlin, Germany*; e-mail: geys@wzb.eu

Abstract
This paper analyses the effect of different forms of civic engagement on corruption. As such, it makes two key contributions to the literature. First, it extends earlier analysis linking generalized trust to corruption by incorporating another element from the social capital complex (namely, formal forms of civic engagement – such as involvement in voluntary organizations) into the analysis. Second, based on the idea that social networks' beneficial *or* harmful impact of may depend on their characteristics, we also evaluate how the structure of social networks (i.e. inclusive vs. exclusive and isolated vs. connected) matters. We evaluate our hypotheses in an analysis of the engagement—corruption nexus for a cross-section of 20 European democracies in 2002/2003. Our results confirm that social networks affect corruption *even when* controlling for the effect of generalized trust, and that their effects are type-specific. These findings survive under various model specifications and multiple robustness checks.

Keywords: Corruption, Civil Society, Networks, Voluntary Associations, European Social Survey.

JEL-codes: K42, Z13

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[*] Address correspondence to Benny Geys, Wissenschaftszentrum Berlin für Sozialforschung (WZB), Reichpietschufer 50, D-10785 Berlin, Germany; e-mail: geys@wzb.eu; Tel: 0049(0)3025491415; Fax: 0049(0)3025491400.

INTRODUCTION

Although some scholars emphasize potential beneficial impacts of corruption – understood as 'dishonest or illegal behaviour, especially of people in authority, [or] the act or effect of making somebody change from moral to immoral standards of behaviour' (Oxford Advanced Learner's Dictionary 2005, p. 344) – on bureaucratic efficiency and economic development,[1] corruption today is widely believed to be inimical to an environment facilitating self-sustaining growth and development (e.g., Shleifer and Vishny 1993; Mauro 1995; Tanzi and Davoodi 1997; Tanzi 1998; Gupta et al. 1998; Jain 2001; Dreher and Herzfeld 2008). Consequently, international organizations such as the World Bank and Transparency International have made the reduction of corruption a primary goal.

Clearly, achievement of such goal necessitates identification of elements that cause corruption, or assist its prevention (for excellent reviews of the literature analysing the determinants of corruption, see Seldadyo and De Haan 2006; Treisman 2007). Towards this pursuit, recent academic work has devoted significant attention to the potential role of *social capital*: i.e. 'features of social organization, such as trust, norms, and networks' (Putnam 1993, p. 167). This research to date concentrates exclusively on the effect of trust, arguing that 'higher levels of honesty and trust that others will conform to a given set of norms in society' lead to lower corruption (Bjørnskov 2003, p. 3). La Porta et al. (1997), Bjørnskov (2003), Uslaner (2004) and Delhey and Newton (2005) report supportive cross-country evidence. This effect might, however, be particular to *generalized* rather than *particularized* trust (Warren 2001). INCLUDE BRIEF DEFINITIONS OF THESE TWO CONCEPTS. Indeed, Harris (2007) reveals that indicators of strong ties, family orientations and particularized trust are associated with significantly higher corruption. Moreover, as discussed in more detail below, the social capital concept is broader than (generalized) trust (Putnam 1993; Coffé and Geys 2005; Sabatini 2008). Hence, concentrating only on the effect of trust gives, at best, a partial view of the social capital—corruption relation.

The present paper adds to this research tradition in three main ways. First, explicitly acknowledging social capital as a multidimensional concept (cf. Putnam 1993; Coffé and Geys 2005; Sabatini 2008), this study incorporates the impact of formal networks of civic engagement into the analysis. By evaluating a different aspect of the social capital complex (while controlling for trust), this allows generating a more complete view of the link between

[1] The grease-the-wheel hypothesis argues that corruption might help to overcome bureaucratic rigidities and red tape, and the expectation of additional earnings through bribes might attract higher qualified civil servants and offer incentives to work harder (Méon and Sekkat 2005). Moreover, the output-maximising level of corruption may be greater than zero due to the marginal costs of controlling and preventing corruption (see Klitgaard 1988).

corruption and social capital. Second, although social capital scholars often stress the benefits of social networks for the generation of social norms and trust (e.g., Putnam 1993; Freitag et al. 2009; see, however, critical discussions in, among others, Foley and Edwards 1998; DeFilippis 2001) – thus predicting lower corruption with increasing civic engagement – Public Choice scholars' work on interest group politics (e.g., Olson, 1965, 1982; Mueller and Murrell 1986) generates the reverse prediction. It is not a priori clear which of these effects dominates. Our analysis, by explicitly incorporating social networks into the analysis of corruption, is the first to evaluate which carries most weight in reality. Finally, though closely related, we analyse to what extent the relation between formal networks of civic engagement and corruption depends on these networks' characteristics. Indeed, one could argue that the relative importance of the positive and negative effects indicated above depends on the networks' constituting features. The central differentiation – defined in more detail below – is thereby based on their constitutive purposes (*inclusive vs. exclusive associations*; see Knack and Keefer 1997; Zmerli 2003) as well as their connectedness to other networks (*isolated vs. connected associations*; see Paxton 2002, 2007). This allows analysing recent arguments stating that social networks based on exclusiveness and social isolation may promote opportunism, strong in-group cohesion and favouritism instead of civic virtues (e.g., Paxton 1999, 2002, 2007; Putnam 2000). In contrast to networks based on inclusiveness and connectedness, such social networks may then not only fail to constitute an ally in the fight against corruption, but might even enhance its occurrence.[2]

Using a sample of 20 European democracies and employing the Corruption Perceptions Index of Transparency International as the central dependent variable, our results show that the social networks add to the explanatory power of the model *even when* controlling for the effect of generalized trust. This provides strong evidence that civil society matters *beyond* breeding social trust. Moreover, and crucially, the relation between social networks and corruption indeed depends on their type. The distinction between inclusive and exclusive organizations appears central: the former are associated with lower, and the latter with higher, corruption. Overall, our results provide evidence that high levels of *certain types*

[2] Some recent studies have similarly addressed potential differences between the effects of bridging, bonding and linking social capital or social networks on economic development and growth (see, e.g., Beugelsdijk and Smulders 2003; Sabatini, 2008). However, such studies mostly distinguish between these types on a rather ad hoc basis: e.g., Sabatini (2008) without further discussion equates family ties to bonding, networks of friends to bridging and voluntary organizations to linking social capital, while Beugelsdijk and Smulders (2003) associate family ties with bonding and voluntary organizations with bridging social capital. Either distinction implicitly presupposes that all voluntary associations are equally bridging (or linking). Yet, in reality, there is likely to be significant variability across such associations. Using recently-developed methodological tools, this variability will be explicitly taken into account, and exploited, in our analysis (see section IV.2 below).

of civic engagement might be linked to higher corruption and, as such, would not constitute ideal investments in the fight against it.

The remainder of the paper is organized as follows. Section 2 reviews the existing literature on corruption and its determinants. Section 3 introduces the concept of social capital, emphasizes the role of social networks as a major structural component thereof, and outlines our main hypotheses. Section 4 introduces the empirical methodology, while our results are discussed in section 5. The last section concludes.

I. NETWORKS OF VOLUNTARY CIVIC ENGAGEMENT AND CORRUPTION

Over the last 20 years, social capital has been linked – in an exploding body of research – to numerous positive societal, economic and political outcomes (e.g., Putnam 1993; Knack and Keefer 1997; Paxton 2002; Uslaner 2003; Messner et al. 2004; Coffé and Geys, 2005; Tavits 2006). Mostly, social capital is thereby seen as the *actual or potential resources* related to a *durable network* of more or less institutionalized relations based on mutual acquaintance or recognition (Bourdieu 1983). For most scholars, it therefore entails a combination of structural and cultural elements (Hooghe and Stolle 2003; van Deth 2003; Coffé and Geys 2005, 2006; Sabatini 2008). The latter incorporate aspects of interpersonal trust, social values and norms of reciprocity. The structural component refers to social networks and interpersonal relations, which can be formal or informal.

Unlike previous corruption work (see section 2), in this study, we focus on the latter pillar of social capital, measured as 'social connectedness through associational life' (Freitag 2006, p. 124), while controlling for potential effects of the former one. According to social capital scholars, social networks can affect corruption via two mechanisms. First, in the spirit of Alexis de Tocqueville, networks of civic engagement have been argued to promote development of norms of reciprocity and social values (Putnam, 1993; Fukuyama 1995; Mayer 2003; Stolle 2003; van Deth 2003), which can easily spill over beyond the immediate group (e.g., Harell and Stolle 2006; Newton 2006). By thus promoting democratic skills and attitudes, one can hypothesize that formal social networks negatively affect the occurrence of corruption. Second, social networks' structures allow people to become part of the political process (Putnam 1993; Boix and Posner 1998). This builds on the finding that civic engagement increases *a)* political awareness by providing the opportunity to discuss political affairs (e.g., Scheufele et al. 2004) and *b)* voters' ability to 'more easily overcome the collective action problem in monitoring officials' (Knack 2002, p. 273). This implies that, in a society with a dense network of civic engagement, more citizens are monitoring the political

sphere, which increases the probability to detect illicit rent extraction and, as a result, decreases corruption (cf. Shleifer and Vishny 1993). In both cases, a flourishing associational life creates an environment unfavourable to the development of widespread corruption.

H1a: Societies with high civic engagement experience a lower level of corruption.

Yet, social networks might not only teach civic skills, social responsibility and cooperation. They can also provide a platform to aggregate and articulate members' interests. However, in general, distinct groups are unlikely to have homogeneous preferences such that conflicting demands may exist across groups (Olson 1982). Civic engagement may then become a possibility or tool to 'lobby' policymakers (Knack and Keefer 1997). Indeed, Olson (1982) argues that small specialized interest groups have a much stronger incentive to engage in costly and inefficient rent-seeking compared to their incentive to work toward the 'common good'. This idea has become central to a large political economics literature on the effects of special interest groups (e.g., Grossman and Helpman 2001), which suggests that accommodation of special interest groups might lead to less efficient policies (e.g., Mueller and Murrell 1986). This line of argument implies, however, a hypothesis directly opposite to H1a; namely, that civic engagement might actually increase lobbying or corruption.

H1b: Societies with high civic engagement experience a higher level of corruption.

Because social networks differ with respect to their characteristics, purposes and members, it is conceivable that the exact effect of a given social network depends on its design. To evaluate this, we specifically regard two differentiations recently proposed in the literature: i.e. based on networks' constitutive purposes (*inclusive vs. exclusive associations*; Knack and Keefer 1997; Zmerli 2003) as well as their connectedness to other networks (*isolated vs. connected associations*; Paxton 2002, 2007).

The distinction between *inclusive* and *exclusive* social capital intends to capture the difference between networks or organizations that are inward-oriented (i.e. focused predominantly on members' personal interests), and those with a broader, societal focus (Knack and Keefer 1997; Zmerli 2003). The idea – in part inspired by the distinction between strong and weak ties put forward by Granovetter (1973, 1983) – is that the former networks enforce exclusive group identities (Warren 2001) and build strong in-group cohesion, but are less integrated into the broader community and thereby contain the risk of negative

externalities and strong out-group antagonisms (Zmerli 2003; Freitag et al. 2009). Strong in-group orientation, specific reciprocity as well as the exclusion of outsiders may indeed lead members to develop feelings of obligation to favour and support people from the same group, which may support corruptive practices (Harris 2007). Fukuyama (2000, p. 8) even sees such narrow radius of trust as a 'cultural foundation for corruption'. Societies can thus 'be rich in social capital *within* social groups, and yet experience debilitating poverty, corruption and conflict' (Narayan 1999, p. 8, italics added). Inclusive networks, on the other hand, have an outward-orientation (Zmerli 2003), which has been argued to make them more likely to generate civic virtues, 'broader identities and reciprocity' (Putnam 2000, p. 22*n*; Freitag et al. 2009). Hence, inclusive associations should be more likely to generate public-spiritedness and interest in the common good, which have been argued to reduce corruption. This line of argument leads to the following hypotheses:

H2: The level of corruption decreases with the density of inclusive social networks.

H3: The level of corruption increases with the density of exclusive social networks.

While distinction between *inclusive* and *exclusive* networks emphasizes the structure *within* individual organizations, differentiation between *connected* and *isolated* networks (Paxton 2002, 2007) rather focuses on the structure *between* associations. Social networks thereby count as well-connected when they 'are linked to other voluntary associations through the multiple memberships of their members' (Paxton 2007, p. 51). Such multiple affiliations 'generate organizational embeddedness' (Cornwell and Harrison 2004, p. 863), which facilitates the development of between-group trust because members know at least some people in other groups and parts of society (Caulkins 2004). Reversely, isolated networks by definition possess less overlapping memberships, and therefore can be expected to mainly develop strong internal ties, social closure and in-group cohesion (Granovetter 1983). This, as mentioned, reduces their incentive to work towards the common good, and might motivate the pursuit of narrow group interests. The absence of ties to other social networks may, moreover, serve as a concealment device. Corrupt activities then become less likely to be monitored and detected, increasing the likelihood that they occur. This leads to the following hypothesis:

H4: A high density of connected social networks is linked to less corruption, while a high density of isolated social associations is linked to higher corruption.

Before we turn to the empirical analysis, it is important to point out that our reasoning suggests that causality runs from involvement in social networks to corruption. Nevertheless, higher corruption might conceivably also lead people to rely more heavily on themselves or closely-knit personal networks rather than, say, society-oriented groups. Yet, the main objective of our work is to empirically assess the *relative* association between different types of social networks and corruption (leaving the direction of causality reasonably beyond the scope of this project).[3]

IV. DATA AND METHOD

To evaluate the relation between engagement in social networks and corruption, we estimate – using OLS – the following basic estimation equation (with subscript i for country):

$$CPI_i = a + b_1 \text{ Networks}_i + b_2 \text{ Controls}_i + e_i$$

We estimate this model using a sample of 20 European democracies. While corruption data are more widely available, our sample size is restricted because data on social networks are extracted from the 2002/2003 round of the European Social Survey (ESS). Hence, only countries participating in this round could be included (more details in section 4.2).[4]

IV.1. Dependent variable

The dependent variable is Transparency International's Corruption Perceptions Index (CPI) for the year 2003.[5] Although there are other measures of corruption perceptions (e.g., World Bank's Control of Corruption Index, International Country Risk Guide), these are generally extremely highly correlated with each other and are, moreover, usually included in the calculation of CPI. We rely on CPI as it is probably 'the most widely known corruption indicator' (Knack and Azfar 2003, p. 6) and a standard choice in the literature. CPI is a

[3] Although existing theoretical and empirical research (Putnam 1993; Bjørnskov 2003; Warren 2001; Uslaner 2004) points towards a causal effect of trust on corruption – thus justifying our approach – the question of causality clearly remains open for further investigation (e.g., the reverse direction of causation is supported by, e.g., You, 2005; Rothstein, 2006; Chang and Chou, 2008). We return to this below.

[4] The ESS is a biennial survey with minimum effective sample size of 1500 for each country (800 for countries with population below 2 million). The first round (2002/2003) was carried out in 22 European countries and contained a special focus on civic engagement. We prefer to use ESS rather than World Values Survey (WVS) because it provides detailed information on civic engagement in voluntary associations *and* its methodology is robust across participating countries. Note that the civic engagement questions were not included in Switzerland and the Czech Republic, such that these countries are excluded.

[5] Similar results are obtained when using CPI data from 2004. Note that this also mitigates concerns about potential endogeneity and reverse causality issues, in that corruption perceptions in a given year cannot affect civic engagement decisions in the past. Unfortunately, a more direct approach to the causality issue using instrumental variables techniques is complicated by the lack of credible, viable instruments.

composite index, aggregating different polls of business people and assessments by country analysts on perceived corruption at the country level.[6] These data are standardized using non-parametric statistics ensuring the index ranges from 0 (highly corrupt) to 10 (highly clean). The resulting index is presented in Figure 1.

[Figure 1 around here]

Figure 1 shows that corruption perceptions are lowest in the Scandinavian countries (with Finland ranked first among all countries for which the index is computed). The highest corruption perceptions in our sample are observed for the Eastern and Southern European countries. It must be noted that as CPI is based on subjective perceptions rather than real corruption, it bears the risk of bias due to rumours, prejudices, media attention, previous corruption ratings or macro factors like a country's economic performance (Lambsdorff 2003; Søreide 2003). While acknowledging their potential influence, more direct measures of corruption – such as convictions for corruption – are unable to capture undetected corruption and often end up measuring other aspects such as the quality of law enforcement (Ades and Di Tella 1997). Therefore, indirect measures based on perceptions remain the best existing measure of corruption for a cross-country analysis (Lambsdorff 2003).

Clearly, one could argue that an ideal sample to examine how the structure of civil society impacts upon corruption would include developing and transition countries. Such countries could unfortunately not be included in the present analysis due to lack of necessary data. Nonetheless, the limited variation in our dependent variable that derives from using 20 European countries also has a bright side as it increase the difficulty to find significant relations. Hence, our sample can be seen a least-likely case for uncovering structural effects, making it a strong test of the hypotheses derived above.

IV.2. Main independent variables

$Networks_i$ is a vector incorporating information about involvement in formal social networks in country i. This is measured using information on participation in and voluntary work for voluntary associations and is extracted from the European Social Survey (ESS). For each of 12 association types (Sports/outdoor activity, culture/hobby, trade union, professional,

[6] All sources use a homogenous definition of corruption, viewing it as 'the misuse of public office for private gain' (cf. Seldadyo and De Haan 2006). Each source must provide a ranking of nations and measure the overall level of corruption for a country (Lambsdorff 2003). Countries are only rated if at least three sources are available (Knack and Azfar 2003).

consumer, Humanitarian/human rights, Environment/peace/animal rights, Religious, Political, Education/teachers/parents, Social club, other), respondents are asked whether they were a member, have participated, donated money or did voluntary work over the preceding twelve months. To most closely capture the idea that respondents are involved in a formal, institutionalized social network, we mainly focus on participation and voluntary work. Importantly, the exact content of this 'Networks' vector differs across the various models we analyze. Indeed, when evaluating H1a and H1b, we include the percentage of respondents in country i that acknowledge active participation or voluntary work in at least one type of association. For hypotheses 2 through 4, we separate this information in two different categorizations.

First, to distinguish *inclusive* from *exclusive* networks, we follow Zmerli (2003) by identifying the basic purpose of each association type.[7] The idea is that groups focusing on personal material interests, status goods (e.g., social status, degrees or titles) or group identities (e.g., gender, age, ethnicity or language) are more likely to generate exclusiveness. On the other hand, groups that pursue public material goods (e.g., environment, human and animal rights), aim to preserve common resources (e.g. language, culture, societal ideals) as well as associations based on strong interpersonal relations are likely to enhance civic values, social responsibility, and an outward-orientation and inclusive character (Zmerli 2003). This leads to the designation of trade unions, professional associations, consumer clubs, social clubs, youth, elderly and women's organizations as predominantly exclusive. Sports, hobby, humanitarian, environmental, animal rights, parent/teacher associations as well as church groups and political parties are designated as predominantly inclusive (see also Zmerli 2003). Hence, the final network-variables measure the percentage of respondents in country i that state active participation or voluntary work in at least one association defined as inclusive and exclusive, respectively.

Second, to differentiate *connected* and *isolated* organizations, we follow Paxton (2002, 2007) and Freitag et al. (2009) in calculating the number of additional association types in which active participants of a given group are likewise involved. Unlike these authors, however, we correct this number for the relative size of each association type in each country. Not doing so 'would unduly benefit (punish) small (large) groups since all [participants] of a small group can also be [participants] of a large group, but not the other way round' (Geys and Murdoch 2010, p. 4).[8] Once again following Paxton (2002, 2007), we then designate the

[7] Evidently, we exclude the 'other' category in making this distinction (and similarly below).

[8] This correction involves a simple OLS regression where the average number of participations of individuals participating in a given association type in country i is the independent variable and the total number of

three association types with the lowest level of (corrected) interconnections as isolated, and all others as connected (note that the exact delineation of association types across this typology thereby differs across countries).[9] Hence, the final network-variables in this case equal the percentage of respondents in country i that state active participation or voluntary work in at least one association defined as isolated or connected, respectively.

IV.3. Control variables

Based on the literature reviewed in section 2 above, we also gathered data for a broad set of control variables. These first of all include economic indicators such as GDP per capita, share of trade in GDP (both measured in 2000 to mitigate concerns of endogeneity bias and taken from the OECD Factbook), income inequality (measured via the Gini-Coefficient and taken from the 2005 United Nations Human Development Report) and the net ratio of children enrolled for secondary education in 2002/2003 (likewise taken from the 2005 United Nations Human Development Report). Secondly, we measure quality of the judicial system and bureaucracy via three 'Governance Indicators' provided by the World Bank: i.e. government effectiveness, regulatory quality, and rule of law (for specific definitions and coding, see Kaufmann et al. 2003). Each indicator is computed for the year 2002. Thirdly, cultural-geographical factors are taken up via *i)* an index averaging five different measures of ethno-linguistic fractionalization (see La Porta et al. 1999), *ii)* an indicator variable for a country's *legal tradition* (i.e. English, Socialist, French, German and Scandinavian; see La Porta et al. 1999) and *iii)* percentages of respondents belonging to specific religious denominations (i.e., Catholic, Protestant and Muslim; extracted from ESS). Finally, the level of *generalized trust* in a society is included.[10] Considering this main cultural component of social capital not only controls for the potential impact of trust (as identified by, e.g., Bjørnskov 2003; Uslaner 2004), but also evaluates the indirect effect of social networks via their impact on interpersonal trust. Summary statistics for all variables are provided in Appendix A.

V. EMPIRICAL FINDINGS

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participants of these same association types in a given country the explanatory variable. Higher (lower) residuals from this regression indicate associations having more (less) interconnections than its participant-base would suggest, implying higher (lower) connectedness *net of the participant-size effect* (see Coffé and Geys 2008; Geys and Murdoch 2008).

9 While this follows Paxton (2002, 2007), selection of just three associations as isolated is obviously ad hoc. Still, re-estimating the model taking four associations as isolated, makes no difference to the results (available upon request).

10 Generalized trust is measured using respondents' answers to: 'Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?' We use the average score for each country, which lies on a scale from 0 ('you can't be too careful') to 10 ('most people can be trusted').

We first examine the relationship between corruption and voluntary associations in general, such as to address H1a and H1b. Table 1 reports the main results. Clearly, as we have a maximum of 20 countries, only a limited number of control variables can be included in the estimations. Yet, in order to mitigate omitted variable bias, several models containing various combinations of controls are estimated. Model 1 only includes our measure of the density of active participation in formal social networks to establish its baseline effect. Model 2 includes important economic factors, while model 3 contains judicial and bureaucratic indicators. Cultural-geographical factors and trust are considered in models 4 and 5. Finally, model 6 retains all factors that proved significant in previous estimations, and will be used as our baseline model later on.[11]

[Table 1 around here]

Table 1 indicates that active involvement in voluntary associations is consistently strongly positively correlated to a country's level of corruption. This effect remains *even after* controlling for important background variables such as generalized trust and rule of law. Yet, clearly, as the coefficient estimate and significance level both shrink significantly under the latter constellation, it appears that at least part of the initially observed correlation occurs indirectly through social trust. Nevertheless, given that introducing generalized trust does *not* eliminate the significance of the civic engagement variables, our findings strongly suggest that civil society matters *beyond* breeding social trust. These results thus provide significant support for H1a rather than H1b. In general, societies with high active involvement in civic engagement are characterised by a lower level of corruption (at least in the sample of developed European countries studied here).

Looking briefly at the effects of our main control variables, we find that GDP per capita acts as the most important economic indicator (in line with Paldam 2002; see also Treisman 2007), while trade openness, income inequality and education have no additional effects. Unsurprisingly, the extent to which agents abide by the rules and laws of society is found to be among the most important factors explaining a country's level of perceived corruption (whereas government effectiveness and regulative quality are not significantly

[11] Additional models with varying combinations of these control variables were also estimated, but are not reported to preserve space. These show that the effect of legal origin shown in model 4 is not robust against the inclusion of alternative factors (especially trust and rule of law). Therefore, they are not retained in model 6. Clearly, one could also think of additional control variables, such as measures of decentralization, a north/south dummy, and so on. Experimenting with such variables shows that they generally add little to the model as estimated, and do not affect our central findings. For reasons of parsimony, they were therefore not retained in the final models.

different from zero). Ethno-linguistic fractionalization, religious affiliation and legal origin have no robust significant effect (see also footnote 12). However, generalized trust is, in line with previous findings, found to be very important: i.e. trusting societies show lower levels of perceived corruption.[12]

To summarize, a positive and significant relationship between active involvement in voluntary associations and corruption appears to persist throughout all analyses. Yet, the effect remains rather small. One possible reason, as argued in section 3, might be that there are opposing effects from different association types. In Table 2, we therefore differentiate between inclusive/exclusive (in model 7) as well as connected/isolated (in model 8) social networks. Finally, in model 9, we introduce both differentiations at the same time to check the extent to which they are measuring similar effects (cf. Geys and Murdoch 2008, 2010).

[Table 2 around here]

Table 2 provides strong support for the theoretical argument brought forward in section 3. Indeed, a significant difference is observed between the coefficient estimates of inclusive and exclusive networks (even after controlling for trust and rule of law). Moreover, in line with H2 and H3, the share of inhabitants actively involved in inclusive, outward-oriented formal social networks goes hand in hand with lower levels of corruption, while intense participation or voluntary work for social networks characterised by exclusive group identities and an inward-orientation are linked with higher levels of corruption. A similar differentiated effect cannot be observed for isolated versus connected social networks; that is, while both variables' coefficient estimates go in the right direction, they remain statistically indistinguishable from 0 (see model 8). As such, we cannot substantiate H4. The distinction between inclusive and exclusive networks therefore appears to be the more important one (we return to this observation below).[13] Note, finally, that including measures for both differentiations (see model 9) leads to insignificance of all network variables due to severe multicollinearity problems (correlations between these measures lie above 0.80, while their

[12] All models were tested for influential cases using Cook's D as test statistic. Poland (model 1), Belgium (models 2 and 4), Israel (models 3, 5 and 6) and Finland (model 5) are found to present such strong influences. Exclusion of these cases in the respective models leads the effect of voluntary associations to become less significant in model 3, but preserves its effect elsewhere.

[13] As before, all models were tested for influential cases using Cook's D as test statistic. Exclusion of these cases in the respective models leaves our results qualitatively unaffected (available upon request).

Variance Inflation Factors are consistently well above the commonly proposed threshold value of 20).[14]

VI. CONCLUDING REMARKS

This study assessed the relation between formal social networks and corruption perceptions in 20 European democracies. This adds to the literature on the social capital—corruption nexus (e.g., La Porta et al. 1997; Bjørnskov 2003; Uslaner 2004) by focusing on the main structural – rather than cultural (i.e. interpersonal trust, social values and norms) – component of social capital. Moreover, we explicitly accounted for the possibility that such formal social networks might not merely link to social goods, but to social harms as well (see Bourdieu 1985; Coleman 1988; Portes 1998; Foley and Edwards 1998; DeFilippis 2001). Indeed, it was argued that the bright and dark side of civic engagement might be related to social networks' characteristics (i.e. inclusive vs. exclusive, isolated vs. connected participation).

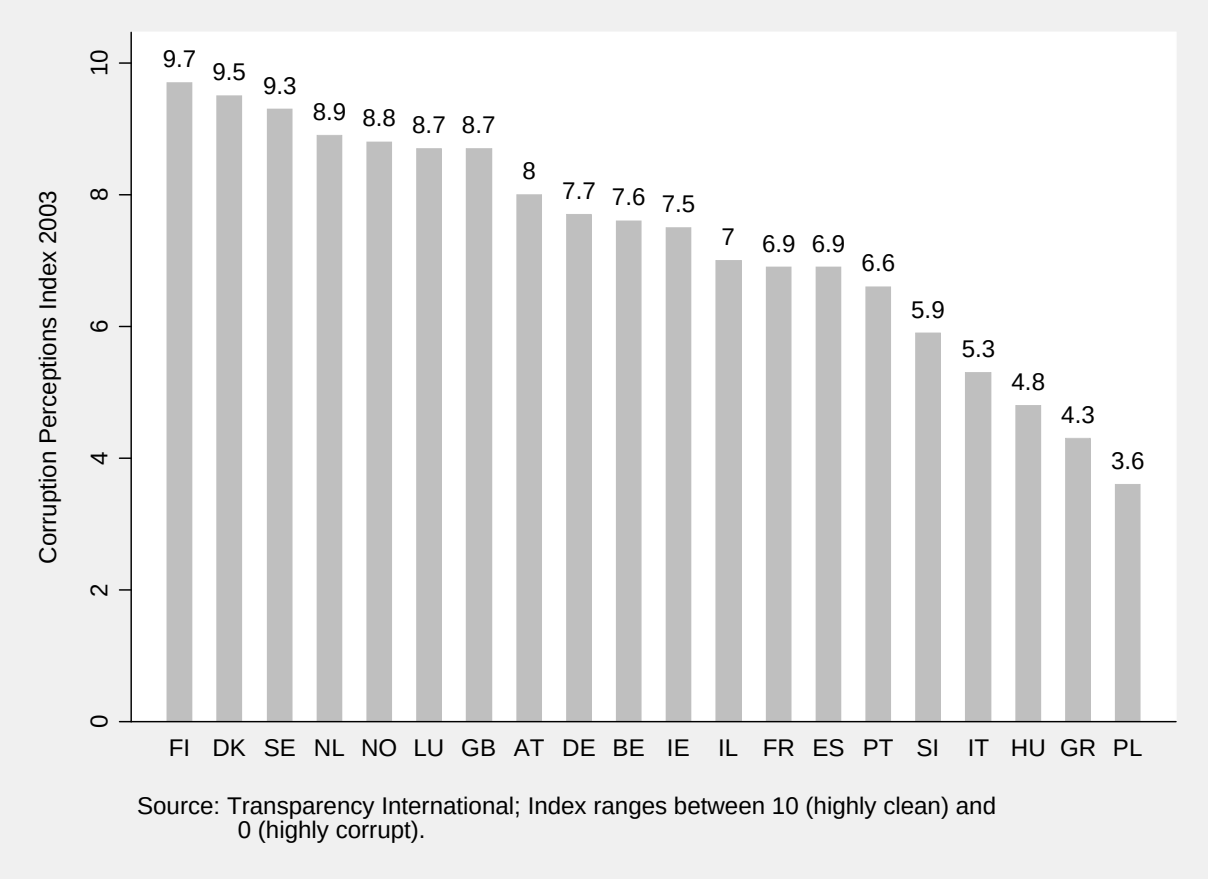
Our empirical results are supportive of this line of reasoning. Indeed, the level of perceived corruption in a country is shown to be significantly associated with a society's degree of civic engagement in formal social networks. Countries with high levels of civil engagement thereby are characterised by less corruption. However, and crucially, not all types of associations share the same positive correlations. Distinguishing between inclusive and exclusive networks – based on the basic purpose of social networks – revealed that only involvement in the former is associated with lower corruption, while involvement in the latter actually shows the reverse tendency. When looking at the interconnectedness of formal social networks, we similarly found that involvement in isolated networks is associated with higher corruption, whereas involvement in connected ones has the reverse correlation (though insignificantly so). In both cases, it thus appears critical to separate the bright from the dark side of civic engagement – and, to the extent that our results are causal rather then correlational (see below), public investments supporting civic engagement in general may not have the desired effect on the prevalence of corruptive practices in society (for a similar argument in a different setting, see Grajzl and Murrell 2009).

Even though our results are supportive of theoretical expectations, they also call for further research. First, the sample's restriction to European democracies makes it difficult to generalize the results. In order to test whether the revealed effects also hold for a wider range

[14] Table 2 only regards active participation or voluntary work. Given the controversy in the literature about the benefit of active face-to-face interactions versus passive involvement in formal social networks, we replicated our analysis using measures of civic engagement that are more closely aligned to passive involvement (i.e. dues-paying memberships). As before, we find that the type of civic engagement plays an important role, in line with our main theoretical argument (full results available upon request).

of countries – especially regarding developing countries where corruption can be a more considerable concern – studies encompassing larger samples of more diverse countries have to be conducted. Secondly, although social networks' coefficient estimates retain statistical significance after controlling for trust and rule of law, these variables are obviously closely related. Future work should investigate more closely the exact relationship between social networks, generalized trust and law abidingness among citizens – especially with respect to different types of social networks – to more clearly define the causal pathways in which the associations observed here work.

Figure 1: Perceived Corruption (CPI 2003)



Source: Transparency International; Index ranges between 10 (highly clean) and 0 (highly corrupt).

Table 1: Voluntary Associations and Corruption

	(1)	(2)	(3)	(4)	(5)	(6)
Involvement	0.110***	0.0686**	0.0350**	0.0701**	0.0589***	0.0213*
	(0.0151)	(0.0261)	(0.0150)	(0.0238)	(0.0159)	(0.0106)
Log of GDP per Capita		2.036**				0.271
		(0.788)				(0.531)
Trade Openess		-0.00441				
		(0.00815)				
Gini-Coefficient		-0.0438				
		(0.0503)				
Secondary Enrolment		-0.0109				
		(0.0542)				
Government Effectiveness			0.369			
			(0.863)			
Regulative Quality			0.388			
			(0.519)			
Rule of Law			2.075**			2.069**
			(0.854)			(0.707)
Ethno-linguistic Fractionalization[a]				0.890		
				(2.410)		
Socialist[b]				-1.820**		
				(0.719)		
French[b]				-0.298		
				(0.494)		
German[b]				0.146		
				(0.484)		
Scandinavian[b]				1.005*		
				(0.520)		
Catholic					0.00383	
					(0.00748)	
Protestant					0.00269	
					(0.0171)	
Muslim					0.0507	
					(0.0297)	
Generalized Trust					1.008**	0.516**
					(0.351)	(0.194)
Constant	3.261***	-13.15	1.966***	4.763***	-0.203	-1.716
	(0.629)	(11.29)	(0.512)	(1.112)	(1.123)	(5.064)
Observations	20	20	20	19	20	20
R-Squared	0.713	0.809	0.911	0.826	0.848	0.936
F-Value	52.77	28.63	51.74	34.63	29.26	50.47

Heteroskedasticity-corrected standard errors in parentheses; levels of significance: * p<0.1, ** p<0.05, *** p<0.01.

[a] No data on ethno-linguistic fractionalization available for Slovenia which reduces the number of countries in model 3 to 19;

[b] Legal origin, reference category is English common law

Table 2: Do Association Types Matter

	(7)	(8)	(9)
Exclusive Associations	-0.0758**		-0.0272
	(0.0341)		(0.0810)
Inclusive Associations	0.0606**		0.166
	(0.0219)		(0.186)
Isolated Associations		-0.0190	-0.0598
		(0.0475)	(0.0860)
Connected Associations		0.0222	-0.107
		(0.0139)	(0.190)
Log of GDP per Capita	0.409	0.178	0.428
	(0.512)	(0.499)	(0.521)
Rule of Law	1.751**	2.254***	1.792**
	(0.707)	(0.625)	(0.624)
Generalized Trust	0.585***	0.570**	0.633**
	(0.162)	(0.246)	(0.215)
Constant	-3.014	-0.937	-3.395
	(4.880)	(4.808)	(5.109)
Observations	20	20	20
R-Squared	0.948	0.934	0.950
F-Value	70.15	41.20	47.39

Heteroskedasticity-corrected standard errors in parentheses; levels of significance: * p<0.1, ** p<0.05, *** p<0.01.

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APPENDIX A

Table A1 Summary statistics of metric variables

Variable	Obs.	Mean	Std. Dev.	Min	Max	Source
CPI 2003	20	7.285	1.78	3.6	9.7	Transparancy International
Active Involvement	20	37.65	13.80	12.66	53.25	ESS, own calculations
Active in Inclusive Associations	20	14.21	6.31	4.42	25.03	ESS, own calculations
Active in Exclusive Associations	20	30.83	12.43	9.28	45.70	ESS, own calculations
Active in Isolated Associations	20	13.61	5.88	4.66	25.54	ESS, own calculations
Active in Connected Associations	20	30.42	12.66	8.98	48.34	ESS, own calculations
Members in Connected Ass.	20	50.40	22.86	15.40	86.66	ESS, own calculations
GDP per capita 2000	20	25,447.15	9,029.123	10,555	53,315	OECD Factbook
Share of Trade in GDP 2000	20	50.10	28.42	26.60	139.50	OECD Factbook
Gini-Coefficient	20	31.93	5.12	24.70	43.10	UN Human Development Report
Secondary Enrolment 2002/03	20	90.95	5.51	80	100	UN Human Development Report
Government Effectiveness 2002	20	1.60	0.54	0.57	2.20	Kaufmann et al. 2003
Regulatory Quality 2002	20	1.39	0.39	0.7	2.01	Kaufmann et al. 2003
Rule of Law 2002	20	1.40	0.47	0.56	1.97	Kaufmann et al. 2003

Ethno-linguistic Fractionalization	19	0.11	0.11	0.0025	0.3638	La Porta et al. 1999
Catholic (%)	20	37.67	32.28	0.15	91.23	ESS, own calculations
Protestant (%)	20	15.27	21.53	0	72.65	ESS, own calculations
Muslim (%)	20	1.89	3.24	0	15.02	ESS, own calculations
Other or no denomination (%)	20	45.17	22.41	8.58	96.53	ESS, own calculations
Generalized Trust	20	5.01	0.97	3.64	6.99	ESS, own calculations

Note: Entries for variables extracted from the ESS (involvement in voluntary associations, religious denominations, generalized trust) present summary statistics for the sample of countries and not the underlying individual data.