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## Towards an empirical characterization of bridging and bonding social capital

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**Towards an Empirical Characterization of Bridging and  
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## ABSTRACT

### **Towards an Empirical Characterization of Bridging and Bonding Social Capital**

by Hilde Coffé and Benny Geys \*

Though a vast amount of empirical work stresses the beneficial effects of social capital, the recent literature has explicitly recognized the importance of distinguishing different types of social capital. Particularly, a distinction has been made between homogeneous (or bonding) and heterogeneous (or bridging) networks under the argument that the latter are more likely to generate positive externalities than the former. The empirical operationalization of this theoretical distinction has thus far, however, remained underdeveloped. We take a step to resolve this issue by assessing the diversity of (voluntary) association membership on a number of socio-economic traits. The proposed methodology is applied to Flemish survey data on voluntary association membership. This analysis indicates that hobby clubs and humanitarian associations such as the Red Cross are among the most bridging associations, while women's groups and associations for retired people are among the most bonding groups.

*Keywords: Social capital, bridging and bonding, voluntary associations, membership heterogeneity, Flemish municipalities*

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## ZUSAMMENFASSUNG

### **Zur empirischen Charakterisierung von heterogenen (bridging) und homogenen (bonding) Arten des Sozialkapitals**

In vielen empirischen Arbeiten werden die günstigen Auswirkungen des Sozialkapitals im Allgemeinen unterstrichen. Neueste Veröffentlichungen sind indes dazu übergegangen, ausdrücklich die Bedeutung der Unterscheidung zwischen verschiedenen Arten von Sozialkapital hervorzuheben. Ganz besonders unterscheidet man zwischen homogenen (oder bonding) und heterogenen (oder bridging) Netzwerken, wobei argumentiert wird, dass letztere mit größerer Wahrscheinlichkeit positive externe Effekte erzeugen als die ersten. Die empirische Operationalisierung dieser theoretischen Unterscheidung ist jedoch bisher eher unterentwickelt. In diesem Papier wird ein erster Schritt zur Lösung dieser Frage getan, indem die Diversität von (freiwilligen) Verbandsmitgliedschaften im Hinblick auf einige sozio-ökonomische Charakteristika untersucht wird. Die vorgeschlagene Methodologie wird auf Daten einer flämischen Erhebung zu freiwilligen Vereinsmitgliedschaften angewendet. Diese Analyse zeigt, dass Freizeitclubs und humanitäre Verbände wie z.B. das Rote Kreuz zu den heterogeneren (bridging) Vereinigungen, während Frauengruppen und Seniorenclubs zu den homogeneren (bonding) gehören.

## Introduction

Much of the empirical work on social capital stresses the positive externalities generated by high levels of interpersonal trust and social networks (Halpern, 2005). This abundance of affirmative outcomes has incited a belief that social capital is a normatively positive thing. Still, theoretical contributions have since long acknowledged that social capital is not guaranteed to produce positive externalities on society (see e.g. Olson, 1982; Bourdieu; 1985; Coleman, 1988; Foley & Edwards, 1998; DeFilippis, 2001). For example, while strongly knit groups provide various benefits to members, they may restrict entry to others and thus deny such benefits to non-members (Portes, 1998). This explicit recognition that social capital is not necessarily beneficial has led several scholars to distinguish between different types of social capital. Particularly, a distinction has been made between *bonding* and *bridging* social capital (Paxton, 1999; Putnam, 2000). The former is associated with closed networks (e.g. organizations that mainly encompass people with the same background), while the latter entails cross-cutting or overlapping networks (e.g. associations that bring citizens into contact with people from a cross-section of society). As positive experiences with dissimilar individuals may have greater effects on the development of generalized trust than relations with individuals who are similar to oneself in terms of their characteristics, attitudes or behaviours (Marshall & Stolle, 2004), the argument has been made that bridging associations are more likely to generate positive externalities than bonding associations.

Despite this distinction in theoretical work, the empirical operationalization of bridging versus bonding social capital is, at best, underdeveloped. Previous work mostly relies on proxies to measure the levels of bridging versus bonding social capital in a community (e.g. Beyerlein & Hipp, 2005) or uses rather ad hoc distinctions between the various networks to which people belong (e.g. Beugelsdijk & Smulders, 2003; Sabatini, 2005). Three notable exceptions exist (Stolle and Rochon, 1998; Stolle, 2001; Paxton, 2002). These authors explicitly recognize that there is significant diversity among various associations and employ the interconnections between voluntary associations (Paxton, 2002) or the diversity of their membership (Stolle & Rochon, 1998; Stolle, 2001) to distinguish those with

more bridging potential from those with less such potential. Each of these approaches, however, has important limitations. The present article therefore extends this methodological work by presenting an empirical methodology to distinguish bonding from bridging associations, which we define as homogeneous and diverse networks respectively (Putnam, 2000). We thereby build on the argument that heterogeneous associational membership is likely to be associated with more bridging potential while homogeneous associational membership is associated with more bonding potential. That is, when an association brings members into contact with a broad sampling of the various groups in society (thereby implying heterogeneous membership), the association can be defined as a bridging association. When the association is on the other hand narrowly constituted (and its membership homogeneous), it is likely to be a predominantly bonding association. The added value of our work thus lies in the presentation of an empirical method that should allow future research on social capital to designate specific types of associations as being predominantly bridging or bonding. As such, future work can tackle the possibly differing effects of bridging and bonding associations without needing to resort to untested (or inappropriately tested) hypotheses about this distinction.

The remainder of the paper is structured as follows. Section 2 discusses the necessity of distinguishing between various types of voluntary associations depending on their relative ability to generate bridging and bonding social capital. Section 3 presents the empirical methodology that allows researchers to distinguish between bridging and bonding associations by relying on observable socio-economic characteristics of association members. In section 4, we employ data on voluntary association membership in Flanders to illustrate the method proposed. This analysis indicates that hobby clubs and humanitarian associations such as the Red Cross are among the most bridging association types in Flanders, while women's groups and associations for retired people are among the most bonding groups. Section 5 concludes.

## **Bridging and bonding associations**

Ever since de Tocqueville's (1962) path-breaking work, it has often been assumed that participation in voluntary associations is of vital interest for the functioning of a democratic political system. They not only instil democratic and cooperative values and norms into individuals, but the trust and norms of reciprocity that people generate in associations also spread over the whole community, encompassing citizens that are not equally active in associational life (Stolle, 2000). In more economic terms, social interactions in voluntary associations are argued to have positive externalities on the entire community. This idea has become one of the foundations of the recent literature on the civil society and social capital (e.g. Putnam, 1993; Anheier & Kendall, 2002) and empirical research appears broadly supportive. Indeed, regions high in social capital (in terms of extensive social networks and interpersonal trust) tend to perform better on a range of socio-economic performance indicators (for a review, see Halpern, 2005).

Nonetheless, group memberships do not necessarily engender positive externalities (see e.g. Bourdieu; 1985; Coleman, 1988; Foley & Edwards, 1998; DeFilippis, 2001). The impact of participation in voluntary associations on the wider community is likely to vary with "the group's goals and activities, and with the diversity and inclusiveness of their memberships" (Knack, 2003, 434). The mafia and militia groups are clearly associations with strong internal connections but generally do not lead to beneficial externalities for the wider community. Also, the Weimar Republic in Germany had a very vibrant civic life, but its organization of associations along existing social cleavages has been argued to reinforce rather than defeat narrow, group-specific interests. A final instructive example relates to Northern Ireland where there is a high level of trust and associational activity within the Protestant and Roman Catholic sub-cultures, which has generated high levels of inter-community distrust and intolerance (Maloney et al., 2000). To capture these differing outcomes of different kinds of associations, scholars have recently made a distinction between *bonding* and



*bridging* social capital (Putnam, 2000).<sup>1</sup> The crucial aspect in the distinction between bridging and bonding social capital is that they point to different types of socialising. While the former relates to organizations and social interactions that are concentrated on people with the same background, the latter refers to associations that bring citizens into contact with people from a cross-section of society.

Bridging associations are often argued to be more likely to generate positive externalities than bonding associations. In this respect, Putnam (2000) makes a relevant distinction between ‘getting by’ and ‘getting ahead’. Bonding social capital involves trust and reciprocity in closed networks and helps the process of ‘getting by’ in life on a daily basis. ‘Getting ahead’ in contrast is facilitated through cross-cutting ties that take the form of bridging social capital. Theoretically, the argument builds on the idea that positive experiences with dissimilar individuals have greater effects on the development of generalized trust than cooperation among individuals who are more homogeneous in terms of their characteristics, attitudes, or behaviours (Marshall & Stolle, 2004). That is, the experiences of successful cooperation in a diverse group can more easily be transferred to the heterogeneous outside world than in-group interaction and trust among homogeneous individuals. This does obviously not imply that bonding groups (such as one’s family) are necessarily bad. Indeed, evidence suggests that most individuals receive social support mostly from bonding rather than bridging social ties (Hurlbert et al., 2000).

This proposition is supported by research in social psychology on inter-group relations or interracial attitudes (see e.g. Abrams et al., 2005). This work suggests that individuals who share racial, ethnic or other salient characteristics create an in-group bias through which cooperation, trust and affection are most easily developed for other members of the in-group. Yet, emphasis on this shared identity also fosters out-group hostility. Strong inward-looking social relations may in other words generate an *us versus them* way of thinking in which groups develop strong social connections and levels of generalized trust among its members, but generally tend to distinguish themselves from other groups

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<sup>1</sup> Besides bridging and bonding social capital, Woolcock (1998) recognizes *linking* forms of social capital. These involve social relations with those in authority.

or even avoid or distrust members from these other groups (Portes, 1998; Abrams et al. 2005; Münster, 2005). Bobo (1988), for example, demonstrates that the absence of direct contact with or sustained knowledge about individuals of different racial, ethnic or class backgrounds serves to reinforce prejudices. Social interaction among individuals from dissimilar groups and the forging of common cooperative experiences on the other hand fosters an identity that helps to both diminish in-group bias and to develop inclusion of (former) out-group members (Gaertner et al., 1996).

Given these different effects bridging and bonding social capital are likely to have on economic and social phenomena, it is important to separate their effects in empirical work. Yet, only few scholars have thus far attempted to do so. Putnam (2000), for example, points out the importance of the distinction between both types of social capital, but then drops the issue and refrains from performing separate analyses (Hibbing & Theiss-Morse, 2002, 189*n*). One reason for this lack of empirical efforts to distinguish bridging from bonding social capital is that an adequate operationalization of bridging versus bonding social capital is not straightforward. Beyerlein and Hipp (2005), for example, rely on the prevalence of different religious traditions as a proxy for bridging and bonding social capital. The argument is that religious traditions differ in their participation outside their own congregations and their engagement in (or towards) the broader community. The relative presence of religious traditions can therefore be used to “approximate the entire network structure of communities” (Beyerline & Hipp, 2005, 998). Other analyses by, for example, Beugelsdijk and Smulders (2003) and Sabatini (2005) have argued that bonding social capital consists of closed networks of family and friends while bridging social capital is associated with membership in religious, cultural, sports, women or youth groups. Besides being rather ad hoc, this distinction also presupposes that all (types of) associations will be equally bridging (or bonding). Yet, most groups are likely to be both bridging and bonding to some extent.

One attempt to provide an empirical basis for the distinction between bridging and bonding associations is presented in Paxton (2002). She defines bridging associations as those that have more extensive links with a larger set of other associations and regards the external interconnections of an

association as a prerequisite for this association's bridging potential. Though this is an interesting approach to distinguish isolated associations from cross-cutting or bridging associations, Paxton (2002) fails to recognize that the extent to which association members can generate links between different groups is affected by the relative size of these groups (Blau, 1977; McPherson, 1983). While larger groups tend to have more interconnections, "this disparity is in part generated by the definitional relationship of size to number of connections" (McPherson, 1983, 1058). Failing to account for this may lead to biased results (see Coffé and Geys, 2006). Another attempt to empirically distinguish bridging from bonding networks is brought forward by Stolle and Rochon (1998) and Stolle (2001). In line with our approach (see below), they define the extent to which an association is bridging or bonding as a function of the socio-economic heterogeneity of its membership. Their specific approach, however, has some important shortcomings (further discussed below). Moreover, they fail to report the ranking of the associations in their study such that it is not clear from their study which associations tend to be more bridging/bonding. Overall, previous research on social capital thus seems to lack a sound methodological approach to distinguish bridging from bonding associations. This article seeks to develop such an empirical approach.<sup>2</sup>

### **Distinguishing bridging from bonding associations: Methodology**

As mentioned, *bridging* associations are those that generate links between major social categories while *bonding* associations generally fail to do so. This proposition is at the basis of our empirical methodology. Indeed, we distinguish between bridging and bonding associations through the extent to which the composition of their membership deviates from the population (see Stolle & Rochon, 1998).<sup>3</sup> The further an association's membership deviates from the population on a given socio-

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<sup>2</sup> In line with, for example, Stolle and Rochon (1998), Stolle (2001) and Paxton (2002), we concentrate on voluntary associations. It is, however, important to keep in mind that there are various other situations in which individuals can have contacts that cross-cut socio-economic divides: e.g. in schools or at the workplace. Hence, our approach focuses on one potential source of bridging social capital.

<sup>3</sup> One might also measure membership diversity by calculating the degree in which members distinguish themselves from each other – rather than from the overall population – on certain dimensions of social

economic trait, the more certain socio-economic groups are over- or underrepresented in the association. This makes it harder to generate meaningful links between various socio-economic groups *within* the association, which can be interpreted as a lack of bridging potential in the organization. It is important at this point to adequately define the comparison population. One possibility is to compare an association's composition to that of the entire population. However, in large countries where regional variations in population composition are significant, it may be more fruitful to compare a group's demographic profile with that of a more local population.

Consider, for example, a situation where there are three associations (A, B and C) and two socio-economic traits along which members can form cross-cutting ties (gender and age) (see Table 1). The entire population is equally divided across both dimensions (represented in column (2)) but this is not the case for membership within the associations. Organization A, for example, has 10% more male members than there are men in the population while organization C's membership consists of 80% individuals above age 60 (such that these are overrepresented by 55% compared to the population). We then define a 'diversity score' as the average of the absolute values of the differences between the population distribution and an association's membership distribution on a given socio-economic trait. For example, the diversity score for association C on the age criterion equals  $(20+15+20+55)/4$ , or 27.5. This indicates that the membership distribution of this association on average differs with 27.5% from the population distribution. Clearly, the higher this diversity score, the less bridging the organization is with respect to that particular socio-economic characteristic.

After calculating such diversity scores for each association with respect to all socio-economic characteristics in the analysis, one might employ two (slightly) different approaches to build a composite indicator of any given association's membership diversity (and thereby its bridging

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cleavage (e.g. by calculating the standard deviation or coefficient of variation on given socio-economic traits) (see Stolle, 2001). The approach presented in the main text builds on the notion that social capital is likely to be fostered most by "memberships in associations that are representative of the larger society" (Stolle and Rochon, 1998, 64*n*). It is preferred by the authors from the view that over- or under-representation of given groups in an association may yield a biased view of their degree of integration and of the aggregate importance (i.e. beyond the association) of the bridging that occurs within the association.

potential). The first approach rescales the diversity scores across associations between 0 and 1 for each socio-economic dimension. That is, the largest diversity score across all voluntary associations on a given socio-economic trait is set to 1, the smallest to 0 and the intermediate values are rescaled to lie within this range. This normalization is necessary to treat all dimensions on a common scale (Bowen & Moesen, 2006) and allows us to simply add the normalized diversity scores across the various socio-economic dimensions for each voluntary association. The resulting heterogeneity index has a minimum value of 0 and a maximum value equal to the number of socio-economic dimensions retained in the analysis. Smaller numbers on the composite indicator reveal that the association's membership is more in line with that of the population and therefore is likely to be more accessible to bridging across various socio-economic groups within the association. For the example in Table 1, this approach indicates that organization B is most bridging (i.e. sum of normalized diversity scores = 0.273), while organization C is most bonding (i.e. sum of normalized diversity scores = 2).

The second approach generates a ranking for each of the socio-economic traits from 1 (i.e. association membership closest to population distribution) to N (i.e. association membership most divergent from population distribution) – with N equal to the number of voluntary associations in the analysis. These rankings are then added across the various socio-economic traits for each voluntary association. As before, smaller numbers on this composite measure indicate that the association's membership is more in line with that of the population – and thus that the association has larger bridging potential. For the example in Table 1, we once again find that organization C, with a sum of rankings equal to 6, is more bonding than the other two organizations. No clear difference can now be made between organizations A and B.

Two key remarks need be made at this point. Firstly, simply adding the normalized diversity scores (or rankings) implicitly gives equal weight to all socio-economic characteristics in the analysis. Still, some dimensions may be deemed more important than others. Nevertheless, even though one could convincingly argue that, say, race will be more important than age or sex divisions in most societies, this provides only a partial answer to the problem. That is, it indicates only which elements are more

important, but it does *not* solve the problem how much heavier to weigh these issues. In the absence of clear theoretical arguments for such weighing decisions, equal treatment is a valid point of departure. Secondly, it should be observed that, unlike the first approach to obtain an association's total score, the second approach does not take the variation in diversity scores across voluntary associations into (full) account. That is, the rank order of associations on a given socio-economic trait does not indicate whether the diversity scores of any two voluntary associations are marginally different or very different. However, as it is not a priori clear that this information should be included in the composite measure, it might be deemed prudent to provide the results of both approaches in empirical applications. If both approaches yield similar results, this strengthens the conclusion as to the predominantly bridging or bonding nature of the various associations in the analysis.

[Insert Table 1 about here]

Importantly, both approaches recognize that “bonding and bridging are not either-or categories into which social networks can be neatly divided, but more or less dimensions along which we can compare different forms of social capital” (Putnam, 2000, 23). Although this is theoretically appealing, it necessarily implies that there remains some liberty on the side of the researcher applying this methodological framework to determine the cut-off point between bridging and bonding social capital. While one can clearly argue that some organizations are ‘more or less bonding than others’, defining an organization as either bridging or bonding *per se* remains at the discretion of the researcher.

Finally, it should be mentioned that our approach addresses three shortcomings in the previous work by Stolle and Rochon (1998) and Stolle (2001). Firstly, they only employ the first approach presented here to create a composite indicator of association membership heterogeneity. The results of the analysis, however, may vary depending on the exact procedure employed to generate the heterogeneity index. For example, as can be seen in Table 1, the first approach is able to distinguish between groups A and B, while the second cannot. Comparing the results across various summation procedures may

thus provide an important means of ascertaining the robustness of the analysis to such methodological choices. Secondly, they fail to normalize their diversity scores prior to adding them across socio-economic dimensions. This may lead to biased results because the various socio-economic dimensions are then not treated on a common scale (thus implicitly giving different weights to the various dimension included in the analysis). In our example, failing to normalize the diversity scores leads to total diversity scores of 15, 17.5 and 47.5 for A, B and C respectively. This implies that A is now more bridging than B, while the reverse is true when a normalization of the scores is applied. Hence, the implicit weighting of the various socio-economic dimensions by not normalizing the diversity scores might affect the conclusion regarding the relative bridging potential of voluntary associations. Thirdly, Stolle and Rochon (1998) and Stolle (2001) remove the dimension in which a voluntary association is furthest from the population distribution “in order not to penalize associations of youth, older people women and so forth – associations whose defining trait happens to coincide with one of the dimensions or representativeness we measure” (Stolle and Rochon, 1998, 64*n*). However, given that these associations specifically aim at certain groups in the population, one might argue that they, by definition, want to generate strong bonds between individuals characterized by this socio-economic trait. Hence, it would be inappropriate to exempt their defining trait from the analysis. Indeed, by removing this dimension, these associations will appear more bridging than they actually are.

### **Distinguishing bridging from bonding associations: a case study**

To illustrate our methodology and to assess the bridging or bonding potential of a set of voluntary association types in Flanders, we employ data from five surveys conducted by the “Administration Planning and Statistics” (APS) of the Flemish government. The APS-surveys were originally designed in 1996 and ask, among other things, whether or not respondents participate in certain types of voluntary associations (e.g. hobby clubs, sports clubs, women’s associations, and so on). Although the survey has been executed on an annual basis since 1996, we only use data from the waves of 1999

and the period between 2001 and 2004. The reason is that the question on voluntary association membership was considerably revised in 1999 (though the 2000-wave temporarily relapsed into the old question). Prior to 1999, people were asked whether they had during the previous year been active members of roughly ten types of voluntary associations. The revised question asked whether people were – or had been – active or passive members in 22 different types of voluntary associations. As this permits us to assess the relative performance of a much broader range of voluntary associations, we rely on this extended version of the membership question for our analysis and pool the results from the five survey waves using this extended question (i.e. 1999, 2001, 2002, 2003 and 2004). Pooling the various samples (each consisting of a random sample of approximately 1500 individuals representative for the Flemish population) maximizes the number of association members in the analysis and generates sufficient members for most association types to allow for a more meaningful analysis (see also below).

However, before we proceed to the analysis, it is important to point out that these survey data are not ideal to separate bridging from bonding associations. The reason is that they do not allow a test of the membership diversity of voluntary associations as such, but are necessarily restrained to an analysis of the associational types brought forward in the survey. Hence, the data entail the risk that the demographic profile of membership in association types may be quite different from that in the associations within each type. This ‘aggregation’ problem arises when one or more of the demographic variables used are correlated with membership in a particular association (e.g. women may be more likely to join knitting clubs), but *not* with the general propensity to join associations of that type (e.g. women may be no more likely to join hobby clubs in general). Hence, when a given association type harbours a very diverse set of homogeneous associations – an alternative example could be religious groups of various faiths – this may lead to the finding that this association type is more bridging than is justified based on the underlying associations (see also Stolle & Rochon, 1998). A more direct analysis of association membership based on data from the voluntary associations themselves would not suffer from this problem. Unfortunately, we lack such data on associations’ memberships and obtaining them for all associations in Flanders would undoubtedly be a task too



cumbersome and costly to be used in actual research. An important task for future research might therefore be to “generate a representative sample of organizations from which a sample of members may be contacted” in order to be able to make “strong statements about the composition of types of organizations” (McPherson, 1983, 1061).

Even though this aggregation problem should lead us to be very cautious in interpreting the results of our particular case study, we see two reasons – besides the empirical approach offered – why our analysis provides a valuable step in empirically separating bridging from bonding associations (or, more accurately, association types) in Flanders. Firstly, when all association types in our sample are approximately equally affected by this ‘internal diversity’ problem, the relative position of all association types on a scale from most bonding to most bridging is likely to be only weakly affected. While the level of the composite index then has little substantive meaning, the order of the association types might still give an adequate indication of the *relative* bonding or bridging potential of the various association types. Secondly, we exclude three association types from the analysis where the ‘internal diversity’ of the constituting associations is likely to be extremely problematic. This is the case for political parties, religious groups and labour unions.<sup>4</sup> Indeed, though one might convincingly argue that a person in one sports club feels some degree of “kinship” not only to other members of the same sports club, but also to those in other sports clubs (Stolle and Rochon, 1998, 59), this argument is much harder to make for members of, say, various political parties. Hence, we exclude these three association types from the analysis.<sup>5, 6</sup> As we also exclude health care associations (because

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<sup>4</sup> Labour unions are presented by Stolle and Rochon (1998) as an example of an internally homogeneous group of associations. Nonetheless, in the APS-surveys labour unions are grouped into one category with employers’ organizations and retailers’ associations. These three groups are obviously addressing a very different public, while each constituent group is likely to be highly homogeneous.

<sup>5</sup> An additional reason to exclude political parties and ‘unions’ (see comment on ‘unions’ in previous note) is that these association types are clearly politically inspired and endeavour to achieve certain policy aims (Wollebaek & Selle, 2002; Zmerli, 2002, 2003; Knack, 2003). As social capital theory focuses on apolitical associations as the typical sources of social capital generation, we decided to remove them from the analysis (Stolle, 2001). Still, the quantitative findings are similar if they are retained in the analysis in the sense that the ranking of the remaining association types from most to least bridging is only marginally affected by these types’ inclusion (results available upon request).

<sup>6</sup> Rather than excluding such association types from the analysis, one might also consider to assign them a normalized diversity score of 1 on those dimensions in which the aggregation problem is most forceful (e.g. religion for the group of religious associations). Technically, this lowers the inflated ‘bridging’ nature of these association types without altering the relative position of the other associations in the analysis. As

membership to one of these is obligatory in Belgium), self-help groups and the white protest movement (which both lack sufficient members in our sample to allow reliable analysis), this leaves us with 16 association types. A list of these 16 association types is given in Table A1 in appendix, along with the number of individuals claiming to be an active or passive member of an association of a given type (both in absolute terms and as a percentage of the total sample size, viz. 7276 individuals).<sup>7</sup>

The data allow us to compare membership composition with the population's composition on eight major dimensions of social cleavage.<sup>8</sup> These are age, gender, education level, religion, nationality, professional category (i.e. blue-collar, white-collar, unemployed, and so on), marital status and whether or not one has children.<sup>9</sup> As the methodology was explained in the previous section, we only show the results from the analysis in Table 2 (more detailed results are provided in Table A2 in appendix). Column 2 presents the sum of normalized diversity scores and column 3 shows the sum of the rankings obtained by the various associations. In both cases, higher scores imply that the socio-economic composition of the association differs more strongly from the composition of the total population and thus indicates that the association is more bonding. Lower scores, on the other hand,

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this, however, does not resolve the problems with these three association types in the present setting mentioned in the previous two footnotes, we refrain from executing this approach in the present study.

<sup>7</sup> We include both active and passive members as previous research indicates that the intensity of involvement has little effect on social capital formation, such that “research on voluntary associations should not limit itself to active participation” (Hooghe, 2003, 56; see also Stolle, 2001; Wollebaek & Selle, 2002; Stutzer & Frey, 2006). Moreover, it has been argued that associations that do not involve face-to-face interactions might nonetheless involve ‘symbolic’ communities that provide a resource for those involved (e.g. Minkoff, 1997; Keane, 1998). Still, one might question whether the choice to include passive members affects our findings. Re-analysing the data using only active members indicates that this is not the case. Indeed, the Pearson rank order correlations between the rankings obtained from the analyses with and without passive members are above 0.90 (full results available upon request).

<sup>8</sup> We thereby compare the composition of voluntary associations with the demographic profile of Flanders as a whole for two reasons. Firstly, the demographic profile does not differ dramatically across Flanders on the socio-economic traits we regard. Secondly, as mentioned before, our data concern association types in Flanders and do not identify particular associations in given areas, making it impossible to compare their composition to a more local population.

<sup>9</sup> Clearly, other socio-economic categories can be considered. Given data availability, it was, for example, not possible to include income or partisanship in the present analysis. Moreover, different socio-economic characteristics may be more important in other settings: viz. language (e.g. in Canada, Switzerland or Belgium), race and/or ethnicity (e.g. in the US) and so on. In any case, it is important to consider a significant number of socio-demographic characteristics to avoid spurious inferences. The reason is that some associations tend to form around one common characteristic (e.g. Skocpol, 1997). Each will thus be bonding on this particular dimension, but might be bridging along other dimensions. A limited scope of the analysis may then incorrectly categorize associations which are homogeneous on one dimension but heterogeneous on various others as a bonding association. This is avoided by including more socio-economic traits. Indeed, associations which are able to overcome this one bonding dimension best by being bridging on all other dimensions, will still turn out to have an overall high bridging potential.

suggest that associations represent more closely the composition of the total population, which implies higher bridging potential. The position of the associations on a scale from most bridging to most bonding is given between brackets.

[Insert Table 2 about here]

It is clear from Table 2 that the general conclusions from our analysis are robust with respect to the exact method used to generate the overall heterogeneity score.<sup>10</sup> Specifically, though one should keep in mind the possible effects from aggregating associations into particular types (see supra), we see that hobby clubs are the most successful in generating a membership that represents the average population in Flanders. This is also the case for associations organizing artistic activities and humanitarian organizations such as the Red Cross. These kinds of associations obviously exist apart from any religious pillar (*zuil*). Such pillarization (or *verzuiling*) is an important issue in Belgium and the Netherlands (see e.g. Billiet, 1993; Coffé, 2002) and involves that these organizations tend to particularly attract people with certain religious and political characteristics. This is, for example, the case for women's associations and associations for retired people, which generally belong to the catholic pillar. These associations are – obviously – also composed disproportionately of respectively women and retired people. As a result, both these association types are found to be among the most bonding groups in our analysis. Youth associations also have quite homogeneous memberships. Young and unmarried people are clearly overrepresented in these organizations.

Before concluding, it may be of interest to compare the ranking of association types produced by our method to that obtained by two other approaches. Firstly, Zmerli (2002) distinguishes between association types based on the associations' goals and activities rather than the diversity and inclusiveness of their membership (see also Wollebaek & Selle, 2002; Knack, 2003). In line with our

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<sup>10</sup> They are also robust when we measure membership diversity by calculating the degree in which members distinguish themselves from each other – rather than from the overall population (see also note 3). In fact, four of the five most bonding and four of the five most bridging associations are designated as such by both approaches and the Pearson rank order correlation between the rankings obtained from the alternative approaches is 0.79 (full results available upon request).

results, she argues that pensioner's and women's associations are predominantly bonding groups while sports clubs, cultural associations and humanitarian associations are bridging. At odds with our results is her designation of organizations for helping the elderly and disabled as bonding (these are located towards the bridging side of the bridging/bonding continuity in our analysis) and youth clubs as bridging (these are among the most bonding groups in our study). This indicates that although bridging and bonding social capital are related to the inward- or outward oriented aims of organizations (Putnam & Goss, 2002), the relationship is not always straightforward. Bridging associations do not always exclusively serve the 'common good' and bonding groups do not always limit themselves to the promotion of the material, social or political interests of their own members. Hence, it may prove useful in further research to develop indicators of bridging and bonding social capital that take into account both the socio-economic make-up of associations *and* their goals and activities. Secondly, Paxton (2002) defines associations as being more bridging (bonding) when they have more (less) extensive links with other associations. Her analysis indicates a very high level of external connections for human rights, peace and environmental associations and a very low level for unions, religious and sports organizations. This appears at odds with our findings as sports organizations are found to be predominantly bridging in our setting while human rights, peace and environmental associations are all located around the middle of the bridging/bonding spectrum. One possible explanation for this contradicting result is that associations allowing to build bridges across socio-economic dimensions *within* the organization reduces the need to build bridges *across* associations. This explanation is, however, highly tentative and deserves further attention in future research.

## **Conclusion**

Although social capital has – both in- and outside the scientific world – been presented as a good thing, it is important to acknowledge that it does not always have merely positive externalities. The recognition of this 'dark side' of social capital has led recent scholarship to a distinction between

bonding and bridging social capital. Bonding social capital refers to social networks that mainly comprise people that are similar in terms of their socio-economic characteristics (age, gender, social class, and so on), whereas bridging social capital refers to cross-cutting social networks. It is thereby often argued that the external effects of bridging networks are likely to be positive, while bonding networks might lack such positive externalities – or may even produce negative externalities (Putnam & Goss, 2002). Despite these theoretical arguments, the distinction between bridging and bonding social capital has as yet remained underdeveloped in empirical research.

In the present paper, we have introduced a methodology to measure bridging and bonding social capital. Our approach assesses how heterogeneous the composition of the various associations is. The idea is that it becomes harder to generate links between various socio-economic groups *within* an association when certain socio-economic groups are over- or underrepresented among in its members. By measuring the extent to which an association's membership deviates from the population on a number of socio-economic traits and summarizing these 'diversity scores' across various socio-economic dimensions for each organization, we introduce an index quantifying the relative presence (or absence) of bridging/bonding potential in the organization. The ensuing empirical designation of specific types of associations as being predominantly bridging or bonding provides a tool for future research on social capital to analyse the possibly differing effects of bridging and bonding associations and whether diversity works differently across various cultures.

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**Table 1:** An example

	Population	A	B	C
<i>Gender</i>				
Male	50%	+10%	+5%	-20%
Female	50%	-10%	-5%	+20%
Diversity score		10	5	20
Normalized diversity score		0.333	0	1
Ranking		2	1	3
<i>Age</i>				
< 19	25%	-5%	-10%	-20%
20-40	25%	-5%	-15%	-15%
40-60	25%	+5%	+20%	-20%
> 60	25%	+5%	+5%	+55%
Diversity score		5	12.5	27.5
Normalized diversity score		0	0.273	1
Ranking		1	2	3
<i>Total</i>				
Sum of normalized diversity scores		0.333	0.273	2
Sum of rankings		3	3	6

**Table 2: Bridging versus bonding association types in Flanders**

Association type	Sum of normalized diversity scores		Sum of rankings	
Hobby club	0.883	(1)	26	(1)
Humanitarian organizations	1.215	(2)	34	(3)
Arts activities (literature, dance, theatre, music)	1.371	(3)	30	(2)
Sports associations	1.878	(4)	51	(4)
Neighbourhood committee	1.897	(5)	53	(5)
Organizations aiding elderly, handicapped or deprived people	2.007	(6)	61	(6)
Local community advisory and school council	2.350	(7)	70	(9)
Associations linked to local pub	2.417	(8)	66	(7)
Third world development and international peace	2.787	(9)	67	(8)
Environmental and nature associations	2.969	(10)	80	(10)
Fan club	3.133	(11)	88	(14)
Socio-cultural associations	3.208	(12)	82	(11)
Family organizations	3.366	(13)	85	(12)
Youth associations	3.948	(14)	91	(15)
Women's groups	4.009	(15)	86	(13)
Associations for retired people	6.018	(16)	112	(16)

Note: The position of the association on a scale from most bridging (1) to most bonding (16) is given between brackets.

## Appendix

Table A1: Association types and memberships

Association type	Number of members	Percentage of the total sample
Youth associations	332	4.6
Environmental and nature associations	396	5.4
Organizations providing aid to elderly, handicapped or deprived people	466	6.4
Arts activities (literature, dance, theatre, music)	488	6.7
Women's groups	573	7.9
Socio-cultural associations	560	7.7
Sports associations	1766	24.3
Neighbourhood committee	323	4.4
Third world development and international peace	282	3.9
Local community advisory and school council	335	4.6
Family organizations	898	12.3
Associations linked to local pub	453	6.2
Humanitarian organizations	585	8.0
Associations for retired people	510	7.0
Fan club	112	1.5
Hobby club	492	6.8

Table A2: Detailed results on bridging versus bonding association types in Flanders

	Youth associations	Environmental and nature associations	Organizations aiding elderly, handicapped or deprived people	Arts activities	Women's groups	Socio-cultural associations	Sports associations	Neighbourhood committee
<i>Nationality (2)</i>								
Normalized diversity score	0	0.611	0.444	0.500	0.333	0.833	0.389	0.500
Ranking	1	13	7	8	5	15	6	8
<i>Gender (2)</i>								
Normalized diversity score	0.247	0.494	0.138	0.010	1	0.218	0.264	0.195
Ranking	11	13	7	2	16	10	12	9
<i>Age (6)</i>								
Normalized diversity score	0.523	0.164	0.247	0	0.251	0.163	0.167	0.178
Ranking	15	7	12	1	13	6	8	9
<i>Marital status (4)</i>								
Normalized diversity score	1	0.049	0.121	0	0.602	0.391	0.067	0.247
Ranking	16	3	5	1	14	11	4	9
<i>Religious involvement (5)</i>								
Normalized diversity score	0.325	0.467	0.325	0.022	0.776	0.430	0.243	0.034
Ranking	10	14	10	2	15	13	6	3
<i>Education (4)</i>								
Normalized diversity score	0.560	0.856	0.191	0.522	0.155	0.561	0.372	0.375
Ranking	10	14	3	9	2	11	6	7
<i>Kids (2)</i>								
Normalized diversity score	1	0.025	0.269	0.172	0.663	0.419	0.190	0.226
Ranking	16	2	8	3	14	10	4	5
<i>Profession (6)</i>								
Normalized diversity score	0.294	0.304	0.271	0.145	0.228	0.193	0.187	0.141
Ranking	12	14	9	4	7	6	5	3

	Third world development and international peace	Local community advisory and school council	Family organizations	Associations linked to local pub	Humanitarian organizations	Associations for retired people	Fan club	Hobby club
<i>Nationality (2)</i>								
Normalized diversity score	1	0.556	0.556	0.278	0.278	0.667	0.500	0.167
Ranking	16	11	11	3	3	14	8	2
<i>Gender (2)</i>								
Normalized diversity score	0.042	0.036	0.082	0.527	0.023	0.161	0.513	0
Ranking	5	4	6	15	3	8	14	1
<i>Age (6)</i>								
Normalized diversity score	0.084	0.207	0.229	0.101	0.040	1	0.270	0.046
Ranking	4	10	11	5	2	16	14	3
<i>Marital status (4)</i>								
Normalized diversity score	0.003	0.133	0.555	0.160	0.285	0.732	0.468	0.159
Ranking	2	6	13	8	10	15	12	7
<i>Religious involvement (5)</i>								
Normalized diversity score	0.368	0.054	0.249	0.252	0.217	1	0.284	0
Ranking	12	4	7	8	5	16	9	1
<i>Education (4)</i>								
Normalized diversity score	1	0.764	0.670	0.426	0	0.903	0.226	0.220
Ranking	16	13	12	8	1	15	5	4
<i>Kids (2)</i>								
Normalized diversity score	0	0.258	0.753	0.434	0.373	0.556	0.577	0.244
Ranking	1	7	15	11	9	12	13	6
<i>Profession (6)</i>								
Normalized diversity score	0.291	0.343	0.273	0.239	0	1	0.295	0.048
Ranking	11	15	10	8	1	16	13	2

Note: The number of categories for each variable is indicated between brackets.