Social Capital and Democracy: An Interdependent Relationship

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Current democratic theory and recent international policy initiatives reveal an intense interest in the relationship between social capital and democracy. This interest is the most recent variant of a long theoretical tradition positing that a vigorous associational life is beneficial for the creation and maintenance of democracy. Despite the popularity of this view, little quantitative empirical evidence exists to support the relationship. Here, the relationship between social capital and democracy is tested using data from a large, quantitative, cross-national study. Two additional tests are introduced. First, the plausible reciprocal effect—from democracy to social capital—is included in models. Second, the potentially negative impact of some associations on democracy is considered. Using data from the World Values Survey and the Union of International Associations in a cross-lagged panel design, results show that social capital affects democracy and that democracy affects social capital. Additional tests demonstrate that associations that are connected to the larger community have a positive effect on democracy, while isolated associations have a negative effect. Theory relating social capital to democracy is drawn from the literature on civil society, political culture, and social movements.

Theorists have long argued that when a country has a vigorous associational life it is better able to create and maintain a democracy. When citizens interact often, join groups, and trust each other, their relationships aid democratization by crystallizing and organizing opposition to a non-democratic regime. Once a democracy is established, these relationships expand citizen access to information and political ideas, which increases governmental accountability. Furthermore, voluntary associations provide a training ground for new political leaders, help members practice compromise and learn tolerance, and stimulate individual participation in politics.

Theories concerning democracy’s dependence on associations are long-standing. Tocqueville ([1835, 1840] 1990) is often credited for first noting the relationship in the United States. The relationship is linked to a rich historical tradition on civil society, however, through such thinkers as Ferguson ([1767] 1995) and Montesquieu ([1748] 1989). Although the definition of what constitutes “vibrant” or “associational” varies, the basic theory has appeared under diverse names, including “civil society” (Habermas 1989; Calhoun 1993), “social capital” (Putnam 1993), “pluralism” (Lipset, Trow, and Coleman 1956; Truman 1951), “mass society” (Arendt 1948; Horkheimer 1947), and “civic culture” (Almond and Verba 1963). The hypothesized relationship between associations and democracy has influenced public policy in Eastern Europe and the developing world. Current development efforts concentrate on the formation of nongovernmental organizations (NGOs) in the belief...
that, once created, such institutions will help foster and maintain stable democracies. Based on these assumptions, funding to NGOs by governments, foundations, and international agencies has increased dramatically over the past decades (Nelson 1995). The proportion of total aid from members of OECD countries that is funneled through NGOs rose from .7 percent in 1975 to 3.6 percent in 1985 to 5.0 percent in 1994 (Edwards and Hulme 1996).

Despite the long time theoretical interest in the relationship between social capital and democracy, and its obvious policy implications, little quantitative empirical evidence exists to support the idea that associations affect democracy. Qualitative case studies of civil society provide little concrete evidence for the relationship, as they remain mainly at the theoretical or descriptive level (Kubik 1998:132). Some quantitative evidence exists, but it focuses largely on concepts like civic culture, which are based on aggregate attitudes rather than on direct measurement of associations (Almond and Verba 1963; Muller and Seligson 1994). The only study to measure associations is Putnam’s (1993) research on social capital in Italy. But Putnam considers governmental performance rather than democracy, and his study is restricted to Italy. Other quantitative research related to the question also tends to be geographically limited (Inglehart 1990, 1997).

Two additional questions have not been addressed in previous research. First, most empirical work does not incorporate the likely reciprocal effect of democracy on associations. A reciprocal effect is quite plausible because democratic institutions permit the formation of voluntary associations to a greater extent than do nondemocratic insti-

1 Although there has been no direct cross-national test of the civil society or social capital hypotheses, there are a few related studies. Following in the tradition of Almond and Verba (1963), three studies—Inglehart (1990, 1997) and Muller and Seligson (1994)—use “civic culture,” or the attitudes of a population, to explain democracy. These studies do not consider associations among individuals directly, however. Two studies consider the effects of trust or association memberships, but on governmental performance rather than democracy (Knack and Keefer 1997; Putnam 1993).

tutions. While most theories stress the associations-to-democracy causal path, various authors have noted the potential for a reciprocal relationship (Fox 1996; Levi 1996:49–51; Offe 1999:73–74; Rahn, Brehm, and Carlson 1999; Warren 1999).

Second, different associations need not have equivalent effects on democracy (M. Olson 1982; Putnam 2000). Previous theory and empirical research tends to treat all associations the same. That is, a bird-watching group is as likely to promote a healthy, effective democracy as the AARP. It is highly likely, however, that certain types of associations will do better in promoting democracy. And some types of associations may actually be detrimental to democracy. For example, nationalist groups are likely to exacerbate societal cleavages and interfere with democratic consolidation. Such associations could also reduce levels of tolerance, thereby undermining the overall democratic political culture. Thus, a significant question about the relationship between democracy and associations remains unanswered: Do different types of associations differ in their effects on democracy?

I test the relationship between democracy and associations (operationalized as social capital) using a large, quantitative, cross-national, panel study. To my knowledge, this is the first cross-national empirical test of this long-standing thesis. For my measure of social capital, I draw on two very different sources of data: the World Values Survey and the Union of International Associations. With sample sizes of 48 and more than 100, respectively, these sources include much greater developmental and regional variation than was available in past research. My measure of democracy, taken from Bollen (1998), is also superior to other measures on a number of criteria (see Bollen and Paxton 2000). Because my two data sources contain measures at multiple points in time, I use a panel design to assess a reciprocal causal relationship. I also distinguish associations that are connected to other associations from those that are isolated in order to test for differences in their impact on democracy.

To operationalize a “vibrant associational life,” I make use of the newest theoretical concept to emerge from the participatory democratic literature—social capital. I de-
fine social capital with two dimensions (Paxton 1999): First, social capital requires an objective network of ties among individuals. Second, it requires that the ties among individuals be trusting, reciprocal, and emotionally positive. Like civil society, social capital represents voluntary association memberships, but it captures other important features of association, such as subjective trust.

A BRIEF DEFINITION OF SOCIAL CAPITAL

The argument linking a vibrant associational life to democracy is found in a variety of literatures under the rubric of pluralism, civil society, and civic culture. Unfortunately, the link is often presented incompletely, in part because the operationalization of a vibrant associational life has not been clearly or completely specified. What is “vibrant”? What is “associational”? The first step in theoretically linking a vibrant associational life to democracy, therefore, is to define terms.

For my definition, I use the relatively new concept of social capital, which was popularized by Bourdieu (1983) and Coleman (1988, 1990). In brief, social capital is the notion that social relations can facilitate the production of economic or noneconomic goods. Social capital is explicitly social; according to Coleman (1988:S98), social capital resides not in individuals but in the relations between individuals. For Coleman, social capital takes many forms, including obligations within a group, trust, intergenerational closure, norms, and sanctions. Bourdieu (1983:249) stressed that the relationships between individuals must be durable and subjectively felt.

Following my earlier work (Paxton 1999), which builds on these two classic definitions, I define social capital with two dimensions. Social capital requires (1) objective associations among individuals, and (2) associations of a particular type—reciprocal, trusting, and involving positive emotion. When present, social capital can facilitate the production of individual or collective goods. For example, social capital in the form of network ties and trust among neighbors can be seen either as a benefit for individuals, who can freely walk the streets, or as a benefit to the community as a whole in the form of reduced crime rates. With these two dimensions, this definition of social capital captures both relations between individuals (Coleman 1988) and the fact that these relationships must be subjective, trusting, and positive (Bourdieu 1983).

Although social capital is only one of many possible operationalizations of a vibrant associational life, it is a useful operationalization for this analysis. With two distinct dimensions, social capital can be more precisely related to democracy. Because social capital is not constrained to attitudes (like civic culture is), it captures relationships among citizens. Yet, emphasizing associations alone is also limited in that there is no way to distinguish economic ties from true community. To distinguish vibrant associations, we should therefore think about the content of associations, and at a minimum this would involve assessing trust.

Although social capital was theorized by Coleman (1988) and Bourdieu (1983) as a feature of groups, Putnam (1993) brought the concept into macrosociological theory by claiming that social capital could be aggregated and influence effective government. My definition is general: Social capital can be measured at multiple levels and produce goods at multiple levels (i.e., at the individual, group, and community levels). My definition therefore divorces social capital from its potential consequences, which, according to Portes (1998), is a problem with other definitions of social capital. I focus on social capital as an aggregate feature of nations and consider its effect on the creation and maintenance of healthy democratic institutions.2

2 This aggregate formulation has been critiqued by Portes (1998, 2000), who argues that social capital should operate only at the individual level of analysis. However, I see social capital as a single concept—trusting ties among individuals—that can vary in its outcomes. The strategy of defining the term apart from the level of analysis is also found in human capital research (e.g., Becker 1964:23–24; Sen 1999:292–97). Portes (1998) gives four criteria for analyses of social capital, of which the first three are relevant to my analysis. An analyst must proceed by, “first, separating the definition of the con-
THE THEORETICAL LINK BETWEEN SOCIAL CAPITAL AND DEMOCRACY

Social capital can affect democracy in two ways. First, social capital can help to create democracy in a country that is not democratic. Alternatively, it can help to maintain or improve an already existing democracy. In the first case, strong associations reduce the ability of the state to directly oppress citizens and provide a space for growth in organized opposition to a nondemocratic regime. In the second case, these associations teach tolerance, promote compromise, stimulate political participation, and train leaders—all of which contribute to a healthy democracy.

Transitions to Democracy

There are two main ways that social capital can aid in a transition to democracy: (1) it provides a space for the creation and dissemination of discourse critical of the present government, and (2) it provides a way for active opposition to the regime to grow. Initially, non state-sponsored relationships between individuals spark conversations. Such conversations are a potential source of opinions that may differ from prevailing state ideology. Once these opinions have been formed, rather than remaining isolated, individuals can use their associations and trust to share ideas and speak about their dismay with the current regime. Ultimately, associations help disseminate information about protest activity and aid in the growth of opposition social movements.

Social capital as a space for discourse. High levels of social capital can help create and disseminate antigovernment discourse. This antigovernment discourse can be intellectual or popular, open or clandestine. Artists, novelists, and playwrights can ridicule the regime and keep alternative values alive (O’Donnell and Schmitter 1986:49). Or the intelligentsia may find ways to subvert regime policies (Goldfarb 1978; Michta 1997). At the same time, popular protest (e.g., stories, songs, complaints) can continue under even the worst oppression (Fatton 1995; Scott 1985, 1990).

Research on the creation and maintenance of dissenting opinions supports the role of trusting relationships in the origin of antiregime discourse. Group ties shield individuals from outside sanctions and allow unorthodox or dissenting views. For example, Finifter (1974) finds that friendship groups provide a protective space in workplaces for dissident political opinions. Milgram’s (1965) classic research shows that individuals are more likely to defy established authority in the presence of confederates.

Informal social ties then become important in spreading information about grievances (Oberschall 1993:24; Useem 1980). For example, opposition pamphlets may be distributed through trusted informal networks. Opp and Gern (1993:662) find that having friends critical of the East German regime was an important determinant of an individual’s tendency to protest during the revolution of 1989. Formal, organized associations play a role as well. In Eastern Europe (Michta 1997) and in Latin America (Smith 1991), the church both created an ideological alternative to the regime and helped to broadcast its alternative view.

Social capital and collective action. In the last stage of resistance to an oppressive regime, high levels of social capital provide resources for the organization of opposition movements and large-scale collective action. To begin, trusting associations can both form the site of early opposition and support a nascent movement (Morris 1981). Meetings can be planned, events can be organized, and opposition leaders can be trained when individuals meet in associations. In Brazil, Sandoval (1998) explains that in the early years of the democratization movement (1977 to 1980), organized opposition “first appeared in the relatively guarded environment of meetings of professional associations or . . . the church” (p. 176). For example, “the Brazilian Society for the Progress of Science, the country’s oldest scientific association, faced...
government obstruction of its thirty-seventh annual meeting as the government sought to avoid anti-government criticism . . . " (p. 176). In a very different time period, Markoff (1996a) explains how Sunday Mass brought the rural community together during the decades preceding the French Revolution. "After Mass, communal issues could be discussed, grievances aired, anger focused, plans hatched, and actions taken" (p. 308).

Social ties then aid in the growth of more large-scale, sustained opposition movements. Trusting associations provide a place for individuals to indicate their intent to counteract the state, thereby activating the critical mass necessary for larger-scale collective action (Marwell and Oliver 1993). Social movements actively opposing a regime can draw on preexisting association ties to mobilize for collective action (Morris 1984; Snow, Zurcher, and Ekland-Olson 1980; Curtis and Zurcher 1973; Useem 1980). Oberschall (1973) explains how established networks act as sites for "bloc recruitment" to social movements.3

There is evidence for the importance of social capital in the creation of democracy in Eastern Europe. Autonomous organizations persisted there despite years of totalitarian rule (Pacek and Kanet 1991:195; Tong 1994), quietly resisting (Hankiss 1989; Ekiert 1997), and helping to organize antistate activity and promote democratization (Bernhard 1993; Opp and Gern 1993).

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3 Social movement theory and civil society/social capital theory complement each other in the explanation of democratization. Social movements are traditionally defined by explicit, intended goals, like democratization, while social capital theory stresses the possibility of unintended consequences toward democratization through association. Therefore, as an unintended consequence, social capital may provide the "cooptable associational landscape" (McCarthy 1997:250) that is a resource for opposition groups in creating and organizing sustained collective action (Morris 1984; Coleman 1988: S108). Vibrant associations can also work alongside established social movements in the process of democratization. For example, case studies of the 1989 mass protests in Eastern Europe indicate that the protests far outstripped the established opposition movement's organizing capability. Karklins and Peterson (1993:600) explain that opposition groups played only a limited role in organizing protests, taking a leadership role only in the last stages when negotiation with the regime was needed. Instead, protest resulted from communication through informal associations about obvious times, dates, and places for protest (e.g., the 71st anniversary of the founding of Czechoslovakia, in the central city square). Of course, much movement research focuses on specific policy changes rather than democratization per se. McCarthy (1996:142–45) provides an extended discussion on how informal ties and associations act as mobilizing structures for social movements of all types.

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The Maintenance of Democracy

Once a democracy is established, it must be consolidated so that democracy becomes the "only game in town" (Linz and Stepes 1996). And even consolidated democracies need to remain healthy. The social ties and trust of social capital help maintain democracy by affecting both the quantity and quality of political participation by citizens.

First, formal memberships in voluntary associations help increase the amount of political participation—its quantity. Tocqueville ([1840] 1990) held that an individual's participation in "civil" associations would create feelings of duty, increase a sense of interdependence with others, and produce a habit of participation. These theoretical assertions are upheld by empirical research in a variety of countries linking membership in voluntary associations to increased political participation (Barnes and Kaase 1979; Verba, Nie, and Kim 1978; Wolfinger and Rosenstone 1980; for a more comprehensive list see Leighley 1995:183). A related line of research argues that informal ties to the community increase individual political participation (Guest and Orpesa 1986).

The bonds of social capital also affect the nature of participation—its quality. Quality of participation is important to theories of civil society that advocate the creation of the public sphere, which is a space outside established authorities for informed, reasoned, rational-critical discourse (Calhoun 1993; Habermas 1989). This idealized space should strengthen democratic virtues such as open-mindedness, tolerance, and respect for opposing viewpoints, while also creating an informed and reasoned public opinion.
Because relationships increase communication and the flow of information, they increase the exposure of individuals to political ideas and debates. New ideas and opinions are more quickly disseminated throughout the population, yet extremist ideas are more easily challenged, as they have less chance of remaining isolated. Finally, the bonds of community help socialize the next generations, which ensures the future stability of democracy.

To summarize: Through participation in trusting associations, individuals may experience changes in their values, preferences, and capacity to act. They should participate more in the democratic process, and the quality of their participation should increase. At the same time, it is the presence of associations, not simply changes in individuals, that provides further resources to collectively mobilize and pursue specific goals in a large society (Lipset et al. 1956). The argument for the relationship between social capital and democracy therefore occurs at both the individual and association levels. 4

THE POSSIBILITY OF NEGATIVE EFFECTS

Previous theory and empirical research tends to treat all associations as equivalent in their effects on democracy (Stolle and Rochon 1998). Yet the associations of social capital need not always produce positive benefits for democracy (M. Olson 1982; Putnam 2000; Warren 2001). Social capital within a single group should be positive for that group, but it could be positively or negatively related to social capital at the community level. For example, a militia or ethnic separatist group might have high internal social capital but exacerbate societal cleavages in the larger community. The internal social capital of other highly member-oriented associations could help mobilize members in favor of policy innovations that do not benefit the community as a whole (Berman 1997:408–16).

The important distinction is between groups that are tied to the wider community through associations and trust, and those that are not. Negative effects on democracy would be expected when there is high within-group trust and networks but low between-group trust and networks (Paxton 1999). This distinguishes the ties and trust present in Sweden from those in Yugoslavia prior to its breakdown.

One traditional way to distinguish such groups is to consider whether they cross-cut social boundaries (Blau 1977; Blau and Schwartz 1984). Recently Putnam (2000:22) introduced a similar distinction: “bridging” versus “bonding” associations. Cross-cutting, or bridging, associations are connected to other associations and to the larger community. These associations should traverse social boundaries, increase members’ tolerance through contact with diverse others (Allport 1954), and prevent the creation of pockets of isolated trust and networks. In contrast, isolated associations could intensify inward-focused behavior, reduce exposure to new ideas, and exacerbate existing social cleavages. For these reasons, associations that are connected to the larger community should be more beneficial to democracy than those that remain isolated.

THE POSSIBILITY OF A RECIPIROCAL EFFECT

Although most theoretical perspectives claim causation runs from social capital to democracy, the reverse could be true as well (Fox 1996; Levi 1996:49–51; Offe 1999:73–74; Rahn et al. 1999).5 Put simply, more associations would be expected to exist when governments allow them to exist. Because nondemocratic regimes often actively oppose the formation of associations, political or otherwise, liberalization of a nondemocratic regime should provide an opportunity for associating that did not previously exist. Associating outside of political parties could become legal, or if still illegal, might not be actively sanctioned. In addition, democrati-

4 The distinction mirrors Pollock’s (1982) separation of “intentional” and “unintentional” mobilization, or Warren’s (2001) differentiation between the developmental and institutional effects of associations.

5 Conn (1973) makes a reciprocal argument with regard to pluralism. Relevant arguments can also be found in the social movements literature (Eisinger 1973; Tarrow 1998, chap. 5).
zation should reduce regime surveillance and "disappearances," while restoring a variety of civil liberties. Together, these reforms should provide a climate that increases interpersonal trust and encourages informal relationships among individuals.

Although a reciprocal relationship has never been quantitatively tested, case studies of civil society and transitions to democracy provide some evidence for such a reciprocal effect. In their summary of transitions from authoritarian regimes in Southern Europe and Latin America, O'Donnell and Schmitter (1988) contend that the first step in democratization is actually elite political conflict rather than the independent growth of civil society, for "no transition can be forced purely by opponents against a regime which maintains the cohesion, capacity, and disposition to apply repression" (p. 21). When a crack in the system appears, then opposition has the opportunity to form (Fox 1996; Tilly 1978).

The Eastern European transitions provide additional evidence. Although scholars have searched for evidence of civil society in the predemocratic Soviet bloc, in some countries civil society was effectively stifled before the totalitarian regimes began to thaw. For example, Bernhard (1993) shows that in four Eastern European countries, only in Poland, with Solidarity and its umbrella groups acting to unite many citizens, did an active civil society lead to democratization. In East Germany and Czechoslovakia, civil society was barely present before governmental reforms (D. Olson 1997:154). Friedheim (1993) claims that East Germany and Czechoslovakia had low levels of civil society organization, possibly because of a high degree of regime homogeneity. Tong (1994) states the issue succinctly: "Given the totalitarian tendencies of state socialist systems, an autonomous civil society rarely emerges in a bottom-up fashion, except when the regime is in serious crisis. Instead, its emergence is often the result of top-down efforts, that is, through tolerance, encouragement, or sponsorship by state policies" (p. 334).

To summarize, theory and previous research point to a likely positive impact of social capital on democracy. However, isolated associations might have a negative impact on democracy. In addition, I expect the relationship between social capital and democracy to be reciprocal and mutually reinforcing.

**DATA AND MEASUREMENT**

To empirically test the link between social capital and democracy, I measure social capital and place it in a model of democracy with relevant controls. I introduce two measures of social capital, each with different strengths and weaknesses. I then define the dependent measure, democracy, and additional explanatory variables.

**Measuring Social Capital**

Cross-national data on social capital are sparse, but at least two sources of data are available and each has distinct strengths. The first source, the World Values Survey (WVS, World Values Study Group 1994), provides fairly precise measures of the two dimensions of social capital—associations and trust. This dataset has individual-level information on trust and voluntary association memberships in 48 countries. The WVS asks questions about individuals' number and type of group memberships, which can be used to estimate the general level of associations in the nation as a whole. To measure associations I sum two variables: the mean number of voluntary association memberships of individuals in a country, and the mean number of voluntary association memberships for which the

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6 The literature on Eastern Europe uses the terminology of "civil society" almost exclusively. As discussed above, civil society is just another way to discuss a vibrant associational life—or social capital.

7 Forty-two countries from the WVS were supplemented with six from Muller and Seligson (1994). However, the Muller and Seligson data were collected in a survey that was designed to be representative of the urban population. The measured levels of trust in the Central American sample are higher than those collected for other countries in Latin America. Because these Central American countries have low levels of democracy, if these levels of trust are artificially high, the test of the social capital/democracy relationship will be conservative.
member did unpaid voluntary work in the past year (the sum therefore provides a measure of depth as well as breadth of association membership). By aggregating group memberships, I estimate the density of associations in each nation.

To measure trust, I take the percentage of individuals in each country who believe that others can be trusted (from the following question: “Would you say that most people can be trusted or that you can’t be too careful in dealing with others?”). Here the focus is on an individual’s estimate of the trustworthiness of generalized others. Trust is important in democratic systems because individuals must be willing to place political power in the hands of “the people.” With low levels of observed trust, individual citizens would be unwilling to relinquish political power to those with opposing viewpoints, even for a short time, thereby preventing successful turnovers of power. Trust in one’s particular group, or in only a segment of the population, is inadequate. In diverse societies, individuals must display generalized trust because, at any time, any group could obtain power (see Uslander 1999 for further justification).

The WVS therefore provides fairly direct measures of social capital, but has a small cross-national sample. Although there is regional variation in the data, the sample is weighted toward developed nations. There are two time periods of the WVS, 1980 and 1990, which allows for the estimation of reciprocal effects.

The second source of data on social capital comes from the International Yearbook of Organizations (Union of International Associations 1990–1991). This yearbook provides information on the number of international nongovernmental organizations (INGOs) present in a much larger sample of countries. The number of INGO memberships is a substantially different measure of social capital than the one taken from the WVS. To begin with, rather than a measure of individual association memberships based in a probability sample, it is an actual count of organizations. The different nature of the measure is not, in itself, problematic. In fact, a count is preferable in some ways. Yet INGOs represent only a specialized subset of all the associations present in a country, so this measure cannot be considered an exhaustive source of association information.

INGOs are associations. Like other voluntary associations, INGOs require voluntary action by individuals for their continuance (Boli and Thomas 1997:180). INGOs are also international. INGOs include the World Health Organization and the Asian Women’s Human Rights Council, as well as Alcoholics Anonymous and the Caribbean Badminton Confederation. Some of these associa-

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8 One issue in aggregating variables across countries is whether the questions were interpreted in the same way across all countries. If this were not true, then differences among countries might occur simply because of an interpretation difference rather than from an actual difference in aggregate trust or association memberships. Recent work provides evidence that individuals in the different countries did interpret the questions from the WVS in similar ways (Paxton 1998). This work used new statistical techniques (i.e., multiple group analysis with a multiple indicator model) to test reliability across social systems as proposed by older work on methods for comparative research (Przeworski and Teune 1970). Comparability of the measures of social capital across countries is therefore not a problem for the analysis.

9 Although most countries in the WVS have information about trust, fewer countries have information about voluntary associations. The countries in which questions about memberships were not asked are: South Africa, Poland, Nigeria, Belarus, India, Czechoslovakia, and Turkey.

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Respondents in Switzerland were asked about only a portion of the associations.

10 The countries included in the analysis are Argentina, Australia, Austria, Belarus, Belgium, Brazil, Britain, Bulgaria, Canada, Chile, Costa Rica, Czechoslovakia, Denmark, East Germany, El Salvador, Estonia, Finland, France, Guatemala, Honduras, Hungary, Iceland, India, Ireland, Italy, Japan, Latvia, Lithuania, Mexico, Netherlands, Nicaragua, Norway, Panama, Poland, Portugal, Romania, Russia, South Africa, South Korea, Slovenia, Spain, Sweden, Switzerland, Turkey, United States, and West Germany. Some of these countries are missing data on variables in one of the two time periods (N = 46).

11 The third wave of the World Values Survey, containing data for 1995, was recently released. Unfortunately, the wording of the question on associations was changed substantially, making across-time comparison impossible.
tions, such as Rotary Clubs International, are indicative of a national network of associations in a particular country. Others, however, are less clearly indicative of national-level social capital (e.g., the Association for the Promotion of African Community Initiatives has 30 individual members from 14 countries). Therefore, only some INGOs express voluntary associations at the local level; the others present a measurement error problem.

There are some benefits to considering INGOs as a measure of social capital. They are an "idealized" version of all associations—those that would be expected to positively affect democracy. Contrary to many other types of associations, INGOs have "resolutely democratic formal structures" and "habitually invoke the common good of humanity as a goal" (Boli and Thomas 1997:180–81). INGOs represent nonlocal ties among associations within a country as well as links to the larger global community (Chatfield 1997:21). Although INGOs by design do not pressure governments for democratic reform, like transnational social movement organizations (TSMOs) do, they do promote democratic norms within their own organizations. Therefore, there is less likelihood of negative effects on democracy when using INGOs as a social capital measure. Cohen (1999:244), argues that many of the most important civil society organizations are now global in nature.

Although INGOs may represent the most positive segment of associations in a country, when used as a measure of social capital they clearly contain measurement error. For this reason, I explicitly include measurement error in my model of INGOs. Accounting for measurement error allows an assessment of the true relationship between social capital and democracy without the potential bias from inaccurate measurement. INGO memberships are available for four time periods from the Yearbook of International Organiza-

zations: 1960, 1966, 1977, and 1990. An equivalent change in the number of INGOs should have a greater impact in a country with few INGO memberships than a country with more memberships. A logarithmic transformation of the number of INGOs can capture these diminishing effects while also reducing skewness and the potential for outliers. Together, these two different measures of social capital provide a fuller picture of the relationship between social capital and democracy than either can alone.

Democracy

Unlike social capital, there is a long tradition of research on the measurement of democracy. Bollen's (1998) measure of liberal democracy is the most carefully constructed measure of democracy available and ranges from 0 to 100. More information about this measure can be found in Bollen's (1998) data archive, which contains scores for 1972 through 1988. Using the components of the measure, I created the scores for 1991.

Control Variables

To assess the impact of social capital on democracy, social capital must be inserted in a reasonable baseline model of democracy. To begin, quantitative research has consistently

13 A number of validity checks were performed (Lin 1976:172–74). In terms of convergent validity, trust correlated highly with average association memberships (r = .69, p < .0001) and moderately with the number of INGOs (r = .36, p < .01). The measures of social capital also display discriminant validity, being uncorrelated (or less correlated) with a number of other cross-national concepts they are not intended to measure, including fertility and child mortality (Singleton et al. 1988). Because trust, connected associations, and INGOs are all indicators of positive social capital, they should reflect a single underlying latent variable. An auxiliary confirmatory factor analysis demonstrates that these three indicators significantly load on a single factor for the sample of countries with overlapping data. And their R-squares, as a measure of reliability (Bollen 1989b:221), were within acceptable range. As would be expected, the INGO measure had the lowest reliability. Goodness-of-fit statistics were not available because the model was exactly identified.

12 Nelson (1995) argues that nongovernmental organizations may be viewed as a pyramid, with many grassroots organizations at the bottom, some intermediate national organizations above them, and fewer INGOs at the top. From this perspective, more INGOs in a country would indicate more NGOs as well.
demonstrated a strong, positive relationship between economic development and democracy (Bollen 1983:469; Burkhart and Lewis-Beck 1994; Lipset 1960; for a review of other studies, see Rueschemeyer, Stephens, and Stephens 1992). In response to the economic development hypothesis, world system theorists argue that current developing countries face a different set of opportunities than capitalist countries experienced in the past, and are, in fact, hindered in their democratic progress (Chirot 1977; O'Donnell 1973). This alternative hypothesis has received some support in empirical research (Bollen 1983; Bollen and Jackman 1985; Gonick and Rosh 1988). I employ the most commonly used measure of industrialization—the log of energy consumption per capita (United Nations, various years). For world system position I distinguish between countries in the "core" of the world system and those that are not in the core (taken from Burkhart and Lewis-Beck 1994). In view of the small sample size in the WVS, I did not further distinguish between semi-peripheral and peripheral countries.

Models of democracy should include some measures of the social forces that can affect democracy. I include variables with theoretical merit that have been empirically justified in at least a few previous studies. Protestant traditions and whether a country was a former British colony are often used to reflect cultural tradition and diffusion (Bollen 1979:575; Bollen and Jackman 1985; Schumpeter 1942). Other important social forces are indicated by school enrollment ratios (Crenshaw 1995) and ethnic homogeneity. I include a dummy variable for countries that are predominately Protestant and one for countries that were colonized by the British and became independent after World War II. School enrollment ratios came from the 1997 Statistical Yearbook (United Nations, various years). The percentage of the population of the most populous ethnic group is my measure of ethnic homogeneity (Sullivan 1991). These determinants of democracy are not exhaustive. Instead, because of the cross-national nature of this study, they necessarily capture broad, systematic forces, rather than process-oriented or path dependent explanations that may hold during certain times or in certain regions.15

Table 1 provides descriptive information for democracy and the independent variables for both datasets. The differences between the WVS data and the larger INGO dataset highlight why using both sources in the analysis is beneficial. The countries in the smaller dataset are generally more democratic, more industrialized, more Protestant, and more central to the world system. They also have higher school enrollments and greater ethnic homogeneity than countries in the larger sample. The standard deviations and ranges indicate that the smaller dataset also has less variation in democracy, industrialization, and ethnic homogeneity. In essence, with the specialized questions in the WVS comes a more restricted set of countries for analysis. Also, fewer cases are available in the WVS with data on associations (31 instead of 46).

MODELS OF SOCIAL CAPITAL AND DEMOCRACY

The analysis is divided into several parts. First, the WVS and INGO panel analyses provide slightly different perspectives on the social capital—democracy relationship. Because of its smaller sample size, the panel design for the WVS includes only those additional explanatory variables that were significant in an auxiliary cross-sectional analy-

15 Additional variables were included in the WVS models to test for spurious relationships. First, a measure of state strength (total government expenditures as a percentage of GNP) did not significantly influence democracy and did not affect any other relationships in the model. Second, a measure of political culture—support for gradual reform (Inglehart 1997: Muller and Seligson 1994)—was included. Political culture had a positive significant effect on democracy, but no other relationships in the model changed. If political culture is viewed as aggregate democratic values, then it may mediate the relationship between social capital and democracy. Future research could attempt to elucidate the causal relationships among these variables.
sis. After presenting these models, I investigate whether cross-cutting associations have a different impact on democracy than do non-cross-cutting associations. This analysis is possible using the WVS, which breaks out associations by type.

**World Values Survey**

I begin with the WVS and analyze the model displayed in Figure 1. At the heart of this structural equation model are the cross-lagged relationships between social capital and democracy. The two components of social capital, mean number of associations and trust in 1980, affect democracy in 1991. Likewise, a measure of democracy in 1982 affects social capital in 1990. Stability parameters are also estimated (social capital in 1980 has effects on social capital in 1990, and democracy in 1982 affects democracy in 1991). The errors in the equations of social capital and democracy are correlated to reflect possible covariation between social capital and democracy that is not captured by the cross-lagged, stability, or control effects of the model.

The main concern when estimating this model was the small sample size of the WVS. In addition, comparatively more countries are available for the 1990 wave, creating an "unbalanced" panel design (Finkel 1995). There were 23 countries in common across the two waves. The smaller number of cases for 1980 demands that I account for missing data in some way in order to be able to use the full 46 cases. A full information maximum-likelihood missing value routine implemented in AMOS (Arbuckle 1995) estimates the model with

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**Table 1. Data Source and Descriptive Statistics for Variables Used in the Analysis: Countries with Full Information, 1990**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of Countries</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Range</th>
</tr>
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<tbody>
<tr>
<td>World Values Survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democracy</td>
<td>46</td>
<td>81.79</td>
<td>22.14</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Percent who trust most people</td>
<td>46</td>
<td>36.26</td>
<td>13.97</td>
<td>6 - 66</td>
</tr>
<tr>
<td>Mean number of association memberships</td>
<td>31</td>
<td>1.71</td>
<td>.79</td>
<td>.52 - 3.39</td>
</tr>
<tr>
<td>Industrialization (energy per capita) (log)</td>
<td>46</td>
<td>7.83</td>
<td>1.15</td>
<td>5.14 - 9.24</td>
</tr>
<tr>
<td>Noncore member of world system</td>
<td>46</td>
<td>.70</td>
<td>.47</td>
<td>0 - 1</td>
</tr>
<tr>
<td>Protestant country</td>
<td>46</td>
<td>.28</td>
<td>.46</td>
<td>0 - 1</td>
</tr>
<tr>
<td>School enrollment ratio</td>
<td>46</td>
<td>77.83</td>
<td>27.39</td>
<td>19 - 117</td>
</tr>
<tr>
<td>Ethnic homogeneity</td>
<td>46</td>
<td>82.89</td>
<td>15.90</td>
<td>32 - 100</td>
</tr>
<tr>
<td>Mean number of connected association memberships</td>
<td>31</td>
<td>.85</td>
<td>.45</td>
<td>.23 - 2.10</td>
</tr>
<tr>
<td>Mean number of isolated association memberships</td>
<td>31</td>
<td>.73</td>
<td>.36</td>
<td>.18 - 1.60</td>
</tr>
<tr>
<td>International NGOs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democracy score, 1991</td>
<td>101</td>
<td>56</td>
<td>38.01</td>
<td>0 - 100</td>
</tr>
<tr>
<td>Number of international NGOs, 1990 (unlogged)</td>
<td>101</td>
<td>886</td>
<td>700.70</td>
<td>48 - 2,700</td>
</tr>
<tr>
<td>Industrialization (energy per capita) (log)</td>
<td>101</td>
<td>6.57</td>
<td>1.77</td>
<td>2.89 - 9.27</td>
</tr>
<tr>
<td>Noncore member of world system</td>
<td>101</td>
<td>.84</td>
<td>.37</td>
<td>0 - 1</td>
</tr>
<tr>
<td>Protestant country</td>
<td>101</td>
<td>.20</td>
<td>.40</td>
<td>0 - 1</td>
</tr>
<tr>
<td>Former British colony</td>
<td>101</td>
<td>.16</td>
<td>.37</td>
<td>0 - 1</td>
</tr>
<tr>
<td>School enrollment ratio</td>
<td>101</td>
<td>53.69</td>
<td>28.00</td>
<td>3 - 102</td>
</tr>
<tr>
<td>Ethnic homogeneity</td>
<td>101</td>
<td>71.02</td>
<td>24.84</td>
<td>17 - 100</td>
</tr>
</tbody>
</table>
the maximum amount of information available for each case and allows me to maintain a sample size of 46. Another issue in the WVS panel was that two outliers were identified in a cross-sectional analysis—China and Nigeria. I report the results with those two outliers omitted. Although the essential pattern of results does not change with the inclusion or exclusion of those cases, there is a significant negative correlation between two of the errors of the equations with China and Nigeria in the model. Negative correlations between errors can be an indication of poor fit in similar synchronous simultaneous equations models (Gillespie and Fox 1980). When these two influential cases are removed, the negative correlations are no longer significant.

The most important result in this part of the analysis is that democracy significantly affects the two components of social capital—associations and trust—while the reverse effect is not found. This finding stands in stark contrast to the ubiquitous theory in the area. Table 2 shows that democracy in 1982 influences both associations and trust. Although the effect of democracy on associations is substantively marginal, a 10-unit increase in a country’s democracy score increases the percentage of individuals who say that others can be trusted by approximately 1 percentage point. We see these results despite high stability in trust and associations over time.

As for the other explanatory variables, there is a positive effect of industrialization
Table 2. Coefficients from Panel Model of Social Capital and Democracy: World Values Survey, 1980 and 1990

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy, 1982</td>
<td>.18***</td>
<td>.01*</td>
<td>.13***</td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td>(.00)</td>
<td>(.03)</td>
</tr>
<tr>
<td>Associations, 1980</td>
<td>-5.43</td>
<td>.72*</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(5.90)</td>
<td>(.36)</td>
<td></td>
</tr>
<tr>
<td>Percent who trust most people, 1980</td>
<td>.13</td>
<td>—</td>
<td>.94***</td>
</tr>
<tr>
<td></td>
<td>(.14)</td>
<td></td>
<td>(.07)</td>
</tr>
<tr>
<td>Industrialization, 1980</td>
<td>6.07*</td>
<td>.18</td>
<td>-3.44***</td>
</tr>
<tr>
<td></td>
<td>(3.57)</td>
<td>(.23)</td>
<td>(.96)</td>
</tr>
<tr>
<td>Noncore position in world system</td>
<td>.51</td>
<td>-.01</td>
<td>-1.15</td>
</tr>
<tr>
<td></td>
<td>(4.78)</td>
<td>(.36)</td>
<td>(2.77)</td>
</tr>
<tr>
<td>Ethnic homogeneity</td>
<td>.20*</td>
<td>.00</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td>(.01)</td>
<td>(.06)</td>
</tr>
<tr>
<td>R²</td>
<td>.63</td>
<td>.64</td>
<td>.91</td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses are standard errors; N = 46. Goodness-of-fit statistics: χ² = 4.7, d.f. = 2, p = .09; IFI = .99; NFI = .98; RMSEA = .17.

*p < .05 **p < .01 ***p < .001 (two-tailed tests)
†p < .05 (one-tailed tests)

on democracy, while noncore position in the world system does not have a significant effect. We see a positive effect of ethnic homogeneity on democracy as well. The three control variables do not strongly influence social capital in the later time period. The only exception is industrialization, which has a negative effect on trust. Although disappointing, this finding is not entirely unexpected by theories that argue that industrialization breaks down trust (Fukuyama 1999). The R²s for the three equations in the model are high, including an R² of .91 for the trust equation, reflecting its strong stability effect.

Structural equation models like the one in Figure 1 can be evaluated for their goodness of fit to the data (Bollen 1989b:256–89). Fit statistics for the model appear in the note to Table 2 and indicate that the model fits the data well. Consider first the chi-square test statistic—we do not reject the null hypothesis that the model fits the data perfectly (although the p-value is close to conventional levels of significance). Other fit statistics agree with the chi-square: The incremental fit index (IFI) (Bollen 1989a) and the normed fit index (NFI) (Bentler and Bonett 1980) both indicate an excellent fit. The only indication of a poor fit is the Root Mean Square Error of Approximation (RMSEA). Overall, the picture provided by the fit statistics is of a well-fitting model.

**International NonGovernmental Organizations**

Sample size and missing data are not a concern for the INGO analyses. Instead, I must account for the likelihood of measurement error. I begin by estimating a model without measurement error and then demonstrate its robustness to various levels of measurement error.

Figure 2 shows a four-wave cross-lagged panel model for the INGO data. As in the WVS analysis, the heart of this model (indicated by lines in bold) includes the cross-lagged and stability paths between social capital and democracy. In 1966, 1977, and 1990, INGOs and democracy are determined by their own values in the previous period.

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17 The closer the IFI and NFI are to 1.0, the better the fit of a model. The closer the RMSEA is to 0, the better the fit of the model. Generally, values below .05 are considered to be an excellent fit, between .05 and .10, good, and values above .10 indicate some problem with the fit of the model (Browne and Cudeck 1993).
the lagged value of the other variable, some exogenous variables, and an error term. All of the explanatory variables except former British colony are hypothesized to influence both democracy and INGOs in every time period. Former British colony is not hypothesized to influence INGOs. The errors in the equations for INGOs and democracy are correlated in each time period to reflect possible covariation not captured by the rest of the model.

Table 3 presents the results of the INGO panel model. In contrast to the WVS panel, the INGO analysis reveals significant cross-lagged effects for both democracy and social capital. The effects are not simultaneous but instead alternate by year—democracy has an effect on INGOs in the first time period (1960 to 1965), while INGOs affect democracy in the later time periods (1965 to 1977 and 1977 to 1991). Overall, the effect of the number of INGOs on democracy increases over the time period, while the effect of democracy on the number of INGOs decreases over the time period. Because the number of INGOs is logged, the effect sizes of the reciprocal relationship are not immediately obvious from the coefficients. In 1991, for a 10-percent increase in INGO memberships, a country’s democracy score is expected to increase by 1. For example, if a country’s INGOs increase by 10 percent—from 50 to 55, or from 500 to 550—its democracy score, holding other variables constant, would be expected to increase by 1. Note that for a country with a small number of INGOs, a small number of additions can make a substantial difference whereas for a country with a large number of INGOs, a proportionately larger number of additions is needed for the same impact on democracy. For the reciprocal effect, a 10-unit increase in democracy would result in a 6-percent increase in INGOs. This analysis provides more support for the traditionally hypothesized direction of causality, with social capital significantly affecting democracy in two of the three time periods. We continue...

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Democracy</th>
<th></th>
<th>Number of INGOs (ln)</th>
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<td>Democracy</td>
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</tr>
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<td>1960</td>
<td>.838***</td>
<td>.451***</td>
<td>.358***</td>
<td>.006***</td>
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<tr>
<td></td>
<td>(.047)</td>
<td>(.100)</td>
<td>(.092)</td>
<td>(.002)</td>
</tr>
<tr>
<td>1965</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
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<td></td>
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<tr>
<td>1977</td>
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<td>—</td>
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<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.092)</td>
<td></td>
</tr>
<tr>
<td>Number of INGOs (ln)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>1.060</td>
<td>—</td>
<td>—</td>
<td>.393***</td>
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<tr>
<td></td>
<td>(.999)</td>
<td></td>
<td></td>
<td>(.034)</td>
</tr>
<tr>
<td>1966</td>
<td>—</td>
<td>8.672*</td>
<td>—</td>
<td>.867***</td>
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<tr>
<td></td>
<td></td>
<td>(3.792)</td>
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<td>(.027)</td>
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<tr>
<td>1977</td>
<td>—</td>
<td>10.813**</td>
<td>—</td>
<td>.749***</td>
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<td>(.045)</td>
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<td>Industrialization</td>
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<tr>
<td>1960</td>
<td>.035</td>
<td>—</td>
<td>—</td>
<td>.181***</td>
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<td></td>
<td>(1.447)</td>
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<td></td>
<td>(.049)</td>
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<td>1965</td>
<td>—</td>
<td>.648</td>
<td>—</td>
<td>.025</td>
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<tr>
<td></td>
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<td>(2.920)</td>
<td></td>
<td>(.021)</td>
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<tr>
<td>1975</td>
<td>—</td>
<td>—</td>
<td>.752</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2.276)</td>
<td>— (.078**</td>
</tr>
<tr>
<td>Noncore position in world system</td>
<td>-4.471</td>
<td>-23.750*</td>
<td>9.976</td>
<td>-2.63+</td>
</tr>
<tr>
<td></td>
<td>(4.220)</td>
<td>(8.684)</td>
<td>(8.813)</td>
<td>(1.40)</td>
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<td></td>
<td></td>
<td>(8.13)</td>
<td></td>
<td>(.061)</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>(.096)</td>
</tr>
<tr>
<td>Protestant country</td>
<td>2.500</td>
<td>7.486</td>
<td>-5.391</td>
<td>-0.98</td>
</tr>
<tr>
<td></td>
<td>(3.281)</td>
<td>(6.558)</td>
<td>(6.455)</td>
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<td></td>
<td>(.071)</td>
</tr>
<tr>
<td>Former British colony</td>
<td>5.266*</td>
<td>2.605</td>
<td>-17.248**</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(3.151)</td>
<td>(6.367)</td>
<td>(6.221)</td>
<td>—</td>
</tr>
<tr>
<td>School enrollments</td>
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<td>.295*</td>
<td>.000</td>
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<td></td>
<td>(0.93)</td>
<td>(1.81)</td>
<td>(1.58)</td>
<td>(.003)</td>
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<td></td>
<td></td>
<td>(1.58)</td>
<td></td>
<td>(.001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(.002)</td>
</tr>
<tr>
<td>Ethnic homogeneity</td>
<td>.133**</td>
<td>.266*</td>
<td>.186*</td>
<td>-0.002</td>
</tr>
<tr>
<td></td>
<td>(0.51)</td>
<td>(1.03)</td>
<td>(1.05)</td>
<td>.001</td>
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<tr>
<td></td>
<td></td>
<td>(1.05)</td>
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<td>R²</td>
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<td></td>
<td>.97</td>
<td>.92</td>
<td></td>
<td>.97</td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses are standard errors; N = 101 countries. Goodness-of-fit statistics: $\chi^2 = 47.7$, d.f. = 27, $p = .008$; IFI = 1.0; NFI = .99; RMSEA = .09

* $p < .05$  ** $p < .01$  *** $p < .001$ (two-tailed tests)

The dummy variable for former British colony displays a fascinating effect over time. In the earliest time period (1965), it has a positive, significant effect on democracy. Its effect in the second time period (1977) is not significantly different from zero, and in the final period (1991) it has a

18 The fit of the model is good. Although the chi-square test statistic is significant (47.7, d.f. = 27, $p = .008$), the other fit statistics indicate that the model fits the data well. The IFI and NFI are 1.0 and .99 respectively while the RMSEA is .09 (values below .10 indicate a good fit). Regarding the significant chi-square value, I found evidence.
significant negative effect. Previous research has found an unequivocal positive effect on democracy for British colonies (e.g., Bollen and Jackman 1985). But most of those studies were conducted using data from the 1960s and 1970s. This longer-term analysis indicates that while the transition to self-rule, as facilitated by the British, enhanced democracy early in a country’s independence, that effect diminished over time. Eventually, those countries experienced democratic reversals. We again see very high $R^2$s, ranging from .67 to .97, for the equations in the model.

Because some measurement error is likely in the INGO variables, I also explicitly include measurement error to test the robustness of the results in the face of mild, moderate, and severe levels of measurement error. That is, I model the INGO variables with measurement error and fix the variance of that measurement error to predetermined values. The values were chosen to represent reliabilities of .9, .8, and .7 (mild, moderate, and severe measurement error). For more information on this procedure, see Bollen (1989b:168–71). Only under the condition of severe measurement error do the results change substantially.

With reliabilities of .9 and .8 for INGOs, there are some changes in the coefficients of both the cross-lagged portion of the model and in the paths from the control variables (minor at a reliability of .9 but with increases in magnitude at a reliability of .8). The largest changes occur in the INGO equations, as expected, and center around the stability effects for INGOs, the coefficients for noncore position in the world system, and the coefficients for school enrollment. There are no changes in significance, however, until a reliability of .7 is used. There, in the cross-lagged portion of the model, the path from democracy in 1960 to number of INGOs in 1966 becomes nonsignificant, the path from number of INGOs in 1977 to democracy in 1991 becomes nonsignificant (with a severe change in the coefficient as well), and the path from democracy in 1977 to INGOs in 1990 becomes significant. Measurement error influences our assessment of the democracy–social capital relationship, but only when severe, and then in an ambiguous direction. Changes in significance for some of the control variables (noncore position in the world system and school enrollment) are seen as well. The fit of the model declines substantially as the reliability of the variables is lowered. In addition, first one, then two negative error variances appear in the model as measurement error is increased. Overall, this analysis indicates that the findings for the INGO analysis are robust to mild and moderate levels of measurement error.

What can we conclude from the panel analysis of the WVS and INGOs? While the INGO analysis supports the hypothesized effect of social capital on democracy, it also supports a reciprocal effect from democracy to social capital. The WVS analysis shows only the effect from democracy to social capital. These effects hold through the inclusion of controls for other relevant variables and the introduction of measurement error to the INGO variables. At a minimum, therefore, these results indicate that we can no longer ignore a reciprocal path from democracy to social capital.

**DO DIFFERENT TYPES OF ASSOCIATIONS HAVE DIFFERENT EFFECTS ON DEMOCRACY?**

Still to be addressed are the potential differences in impact by type of association. To reiterate my earlier arguments, although associations that are connected to the wider community are expected to positively influence democracy, isolated associations could be detrimental to democracy. At a minimum, membership in an association with ties to other associations would keep individuals from being isolated. I assess the connectedness of associations by looking at the multiple memberships of their members. Associations whose members have many ties to...
other types of associations are more likely to cross-cut social boundaries and promote contact with diverse others than associations with fewer such ties. Figure 3 presents, for each type of association in the WVS, the proportion of members who have at least one other membership and the mean number of other memberships of members, respectively. Three associations stand out as less connected than others: trade unions, sports associations, and religious associations. In addition to their obvious separation from the other associations, these are the only associations with standardized scores of less than –1.0.20 I code these three types of associations as isolated and the others as connected. This produces two variables to measure associations in each country: the mean number of connected voluntary association memberships of individuals in a country,

20 The isolated nature of these associations is confirmed in another dataset. The American Citizen Participation Survey (Verba, Schlozman, Brady, and Nie 1995) contains detailed information on the memberships of respondents. Using a variety of measures of connectedness produces low scores for trade unions, sports associations, and religious groups.
and the mean number of isolated associations.  

Table 4 presents the WVS model with average association memberships split into two types. The results indicate that connected associations have a strong positive influence on democracy, while isolated associations have a strong negative influence on democracy. A one-unit increase in connected associations (which has a range of .23 to 2.1) is expected to increase a country's democracy score by 34 units. A one-unit increase in isolated associations (range of .18 to 1.6) decreases democracy by 41 units. The relatively similar size of these coefficients helps to explain why the overall effect of associations on democracy in the WVS analysis (Table 2) was not significantly different from zero. This analysis also helps account for the divergence in the effect of social capital on democracy across the original WVS analysis and the INGO analysis (Tables 2 and 3). Recall that INGOs are more likely to be nonlocal, internally democratic, and have links to global democratic norms. Associations had a positive impact on democracy in the INGO analysis because of this specialized nature.

In this model, trust has a positive effect on democracy, lending further support to

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21 The results presented below are robust to a variety of modifications. These include breaking out associations by the memberships in which individuals do unpaid work (a conservative estimate of membership) and by both membership and unpaid work. Including the associations with the next lowest standardized scores as non-cross-cutting does not change the results either. If associations are divided along political lines (using information from the American Citizen Participation Survey), neither politicized nor non-politicized associations had an effect on democracy.

22 The model is also trimmed, with the nonsignificant coefficients from Table 2 removed. This strategy conserves the ratio of parameters to cases. The results do not change if all paths are included.

23 Indeed, a simple correlation analysis shows that number of INGOs correlates positively and significantly with connected associations but is not significantly correlated with isolated associations.

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<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Democracy, 1982</td>
<td>.22***</td>
<td>.01**</td>
<td>.01*</td>
<td>.14***</td>
</tr>
<tr>
<td></td>
<td>(.05)</td>
<td>(.00)</td>
<td>(.00)</td>
<td>(.02)</td>
</tr>
<tr>
<td>Connected associations, 1980</td>
<td>34.23*</td>
<td>.63*</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(20.16)</td>
<td>(.38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolated associations, 1980</td>
<td>-40.75*</td>
<td>—</td>
<td>1.03***</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(22.01)</td>
<td>(.26)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent who trust most others, 1980</td>
<td>.23*</td>
<td>—</td>
<td>—</td>
<td>.92***</td>
</tr>
<tr>
<td></td>
<td>(.13)</td>
<td></td>
<td></td>
<td>(.07)</td>
</tr>
<tr>
<td>Industrialization, 1980</td>
<td>1.16</td>
<td>.07</td>
<td>.06</td>
<td>-2.26**</td>
</tr>
<tr>
<td></td>
<td>(3.48)</td>
<td>(.12)</td>
<td>(.07)</td>
<td>(.84)</td>
</tr>
<tr>
<td>Noncore position in world system</td>
<td>2.32</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(4.78)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic homogeneity</td>
<td>.25**</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>(.10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.66</td>
<td>.54</td>
<td>.73</td>
<td>.91</td>
</tr>
</tbody>
</table>

*Note: Numbers in parentheses are standard errors; N = 46. Goodness-of-fit statistics: $\chi^2 = 13.17$, d.f. = 12; $p = .36$; IFI = 1.0; NFI = .95; RMSEA = .047.

*p < .05    **p < .01    ***p < .001 (one-tailed tests)
the hypothesis that social capital affects democracy. Yet the return effect of democracy on trust and associations persists, indicating that the relationship is reciprocal. Democracy increases both cross-cutting and non-cross-cutting associations, which corresponds to theory—if liberalization enhances the climate for associations, this should occur for all associations.

The fit of the model with both measures of associations is substantially better than the fit of the model with the single measure of associations. The chi-square test statistic is now solidly nonsignificant, indicating that the model fits the data perfectly. More striking is the substantial decrease in the RMSEA, from .17 to .047. The RMSEA now falls within the range for good-fitting models (Browne and Cudeck 1993:144).

In a parallel analysis, I tested a model with an interaction between trust and associations. The interaction effect was positive and significant (2.12, p < .001) while the main effects for trust and associations were negative (−1.98, p < .001, and −100.9, p < .001, respectively). This means the impact of associations on democracy depends on the level of trust present in society. At low levels of trust, increases in association memberships have a negative impact on democracy.

For example, when only 24 percent of the population expresses trust, the effect of a one-unit change in associations on democracy is −50 (−100.9 + [2.12 × 24]). Only when approximately 50 percent of the population is trusting do increases in associations lead to increases in democracy. These results support the findings in Table 4—associations in a climate of distrust are potentially harmful to democracy (Paxton 1999). Overall, these results provide evidence that the type of associations present in a country has implications for its level of democracy.

CONCLUSION

Current democratic theory and recent international policy initiatives reveal an intense interest in the relationship between social capital and democracy. I began by outlining the theoretical justification for the long-standing thesis that vibrant associations help create and maintain democracy. I then presented an equally plausible alternative hypothesis—that democracy can increase social capital through a reciprocal effect. Quantitative, cross-national tests of both the conventional hypothesis and the alternative hypothesis were introduced. Social capital was operationalized as associations and trust using two sources of data—the World Values Survey (World Values Study Group 1994) and international nongovernmental organizations (Union of International Associations 1990–1991). I also tested the hypothesis that connected associations are more beneficial to democracy than are isolated associations.

The findings have shown that the relationship between social capital and democracy is reciprocal. In the panel analyses, social capital was found to promote democracy while a return effect from democracy to social capital was also established. The analysis also confirmed that certain types of associations do better in promoting democracy. When associations were broken into two types using the WVS, connected associations had a strong positive influence on democracy, while isolated associations had a strong negative influence on democracy.

24 Although this analysis focused on the aggregation level, a note on individual-level relationships is relevant. If trusting associations promote tolerance and political participation, then individual-level relationships should demonstrate this effect. Using individual-level responses from the WVS, I tested whether connected versus isolated associations had different effects on tolerance toward different groups, measured as the number of different groups the respondent would not like as neighbors (Muslims, Jews, immigrants, etc.), and political efficacy, measured as the reverse-coded response to the question, "If an unjust law were passed by the government, I could do nothing at all about it." Interestingly, connected associations had a significant negative effect on intolerance, while isolated associations had no significant effect. In predicting "If an unjust law were passed, I could do nothing," both connected and isolated associations had a negative effect. However, the coefficient for connected associations was three times the size of the coefficient for isolated associations. In both cases, the R-square for the model with individual-level indicators of social capital was considerably higher than a model with basic demographic variables. These analyses are intriguing and should be investigated further in future research.
Overall, these findings demonstrate that to fully understand how democracy and social capital are related, both their reciprocal nature and the possibility of negative effects must be recognized.

There are some important limitations of the present analysis. Essentially, the analysis sailed between the Scylla of sample size and the Charybdis of precise measurement. The WVS provided better measures of social capital than did the Union of International Associations, but it had a smaller sample. The smaller sample meant that the developmental variation of the WVS sample was somewhat limited. Most of the countries come from western or Eastern Europe, with a few countries from South America, Africa, the Middle East, and Asia remain underrepresented in the sample. Most of the findings of the WVS were replicated in the INGO analysis, with its larger sample size and greater developmental variation giving more confidence in the overall findings.

Further, because this analysis remained largely at the aggregate level, it cannot adjudicate whether the effect of social capital on democracy is due to the different values vibrant associations may impart to their members or to specific activities undertaken by the associations themselves (intentional versus unintentional mobilization). Disentangling the two explanations could be difficult, but future research using multilevel models, comparative or case-study techniques, or data with greater detail about the characteristics of associations may bear fruit. In addition, future research should consider the possible correlation of cases resulting from association ties across national boundaries (Hironaka 2002), the invigoration of protests through demonstration effects (Karklins and Petersen 1993:601–602), or mimicry by government officials (see Markoff 1996b: 26–34 for a discussion of the transnational context of democratization).

With larger and larger proportions of their aid being funneled to NGOs (Edwards and Hulme 1996), international funding agencies are clearly committed to the view that social capital will positively increase democracy. The present analysis has provided some justification for this position. Yet it also provides some cautionary evidence: (1) Some types of social capital may be detrimental to democracy, and (2) social capital can in turn be affected by democracy. Funding agencies should consider these issues in funding NGOs to foster democracy.

First, if certain types of associations have substantially greater benefits for democracy, or if certain types of associations are actually harmful to democracy, then agencies that fund NGOs or nonprofit organizations should consider a differentiated funding policy. With evidence that certain types of social capital are more beneficial to democracies, the creation of cross-cutting associations and trust among individuals should be the focus of attempts to increase social capital. Ultimately, a more precisely focused donor policy could help the national and international community foster more stable, healthy, and effective democracies.

In addition, donor policy should recognize that a singular focus on funding NGOs and grassroots organizations may not, by itself, produce democratization. Instead, the institutional environment in which NGOs are embedded is important for their growth and expansion. Other strategies to encourage democratization, such as promoting the rule of law, assuring respect for human rights, or encouraging transparent governmental processes, may result in increases in social capital or civil society indirectly.

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