

Bowling Alone: A Review Essay

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1. Introduction

Social capital has become one of the most active areas of analysis and debate in the social sciences over the last decade. From the perspective of a social science such as economics, the social capital literature represents a relatively heterodox way of thinking as it moves away from an emphasis on how individuals make purposeful, self-interest choices to understanding how social norms and social structures emerge and condition individual behaviors. From the perspective of public policy, social capital has been treated as a "missing link" in explaining the success or failure of different communities and even societies.

Among social scientists, Robert Putnam has been perhaps the most impassioned advocate of the social capital paradigm. Starting with his widely cited 1995 essay "Bowling Alone: The Strange Disappearance of Civic America," Putnam has articulated a broad vision of the role of social capital in our society. According to Putnam, a substantial component of fluctuations for phenomena ranging from voting to crime to philanthropy is attributed to fluctuations in the stock of social capital. In his book *Bowling Alone*, Putnam expands the suggestions of this original essay into a full-blown analysis of modern American life.

At one level, the book is an impressive empirical achievement. No one can go away from the book unpersuaded that for the United States as a whole, participation in voluntary organizations has experienced a profound decline in the last 30 years. And certainly something "feels" correct about much of *Bowling Alone*, at least from the perspective of economics. Much of the exciting recent research in economics has focused on introducing greater sociological realism into the analysis of individual behavior; see Durlauf and Young (2001) for a broad ranging defense of these efforts.

However, despite the exhaustive documentation of these trends and the very worthwhile emphasis on group influences on individual outcomes, *Bowling Alone* is in many ways very disappointing, particularly when judged from the perspective of rigor or analytical depth. The many interesting facts that are documented are not subjected to a careful analysis of their causes or their consequences. Hence in my judgment, as a

piece of scholarly social science, the book is largely a failure. The problems with *Bowling Alone* cannot be attributed to Putnam's attempt to write a book with popular accessibility and appeal. Rather, the book's failings stem from weaknesses that beset the social capital literature as a whole. In this sense, *Bowling Alone* is very much an exemplar of the literature it summarizes and extends.

2. Conceptual vagueness

One problem with *Bowling Alone* is its lack of clarity as to what constitutes social capital. This holds in two senses. First, one finds inconsistencies in the various substantive definitions of social capital which appear in various places in the book. For example, *Bowling Alone* starts with the following definition of social capital:

"...social capital refers to connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them." (pg. 19)

Yet this definition proves to be quite malleable. In chapter 19, social capital is equated with labor market connections (pg. 319-322). As understood in the studies that he describes, networks are conduits for information flows and have no components of either reciprocity or trust (cf. the formal model of Montgomery, cited approvingly in *Bowling Alone*). And in the latter part of the book we are told:

"Fraternity, as the French democrats intended it, was another name for what I term 'social capital.'" (pg. 351)

Leaving aside the inherent vagueness associated with rhetorical flourishes like the latter (though one wonders whether it is the Girondist or the Jacobin notion of fraternity to which Putnam refers), the various substantive definitions deal with fundamentally different phenomena. Reciprocity and trust, taken together, are both quite different from information flows. From the perspective of economic modeling, one obvious reason for this difference is that behaviors undertaken due to reciprocal altruism, trust, or some other formulation, can only be understood as the volitional decisions of

purposeful actors. Information flows on the other hand, require no such understanding. While both norms and information may be modeled using networks of some sort, this does not mean that these phenomena are examples of a common natural kind.

Second, much of the discussion in *Bowling Alone* deviates from the use of constructive definitions of this type; as noted by Portes (1998), this is a generic problem with the social capital literature. Instead, in much of *Bowling Alone* social capital is defined functionally: when social groups exhibit "good behaviors," social capital is present. To see how this functional definition is unsatisfactory, consider Putnam's discussions of types of social capital, which is in my view probably the most original analytical discussion in the book. Putnam distinguishes between bridging social capital, which builds links between groups and bonding social capital, which solidifies links within groups. Notice that this does not seem to be a very natural dichotomy, as one would expect various forms of social networks to simultaneously do both. Take the example of national identity. Identification with one's country, and the attendant loyalties it induces towards other citizens, can act to bridge different ethnic groups within a country while at the same time bonding citizens in ways that may increase hostility towards foreigners. Does national identity increase or decrease a country's stock of social capital? This question is, in my view, ill defined.

This vagueness contrasts with the approach taken in economics to study social interactions. One longstanding area of such research can of course be found in game theory. For example, the basic ideas behind the Folk Theorem come down to the recognition that in repeated interactions, cooperation is possible; Binmore's (1998) description is particularly apt for this context

"...all interesting outcomes in the cooperative region of a one-shot game are also available as equilibria in an indefinitely repeated version of the game" (pg. 265)

"...for indefinitely repeated games, the *folk theorem*, tells us that we do not need to rely on anything but the enlightened self-interest of sufficiently forward-looking players to maintain the full panoply of cooperative possibilities." (pg. 293)

The basic intuition underlying the Folk Theorem is nothing deeper than the recognition that if individuals are punished in the future for acting in a noncooperative fashion

today, then cooperation can be sustained over time. An important paper by Kandori (1992) shows how this idea can be generalized to something that approximates a social norm, in the sense that each member of a group punishes noncooperative behavior, even when he has not directly suffered from it. This shows how the idea of social sanctions can be formalized.

From the perspective of *Bowling Alone*, the Folk Theorem has two implications. First, it illustrates that it is possible to supplement the very informal theorizing of the book (and the broader social capital literature) with a more rigorous, and I would claim logically coherent alternative. Second, it suggests that in equating social capital with reciprocity and trust, Putnam is mixing very different concepts together. The cooperative behavior which can occur in repeated games is consistent with the narrowest form of "homo economicus" in that cooperative behavior derives from self-interest defined with respect to very standard notions of utility. In this respect, one can think of the Folk Theorem as describing the emergence of a form of generalized reciprocity among selfish agents; indeed Binmore (1998) interprets many ideas associated with social contract theory in this way. In my view, trustworthiness means something quite different. Trustworthiness is cooperative behavior that occurs in the absence of either an enforcement mechanism or the prospect of future reward, and is perhaps better thought of as an internalized ethical norm. Explaining ethical behavior is very different than explaining adherence to socially enforced norms.

Putnam does comment on this distinction:

"In some cases, like neighborhood lawn raking, the return of the favor is immediate and the calculation straightforward, but in some cases, the return is long-term and conjectural, the benefit of living in the kind of community where people care for neglected children. At this extreme, generalized reciprocity becomes hard to distinguish from altruism and difficult to cast as self-interest. Nevertheless, this is what Tocqueville, insightfully, meant by "self-interest rightly understood." (pg. 135)

However, it is unclear what to make of this statement. From the perspective of the generative mechanisms for reciprocity and trust, they *are* very different ideas. Hence, if one is interested in policies to promote the outcome of cooperative behavior, which mechanism is operational will matter. At a minimum, the analysis of social capital

would be very much improved by explicit attention to game-theory and models of social interactions.

To be fair, while economics, especially game theory, has formulated a rich language for understanding reciprocity, I am less persuaded that much progress has been made in understanding ethics per se. One reason for this is that ethical behavior is often treated as a taste; in a deep study of trust by Glaeser et al (1999), cheating is treated as nothing more than an argument in a utility function. My own belief is that much of what we understand as ethical behavior can best be understood in terms of how individual cognitive processes are shaped by ethical constraints. So, rather than say that one chooses to be honest, perhaps it is better to say that dishonest behavior is absent from the choice set of those who have adopted certain ethical systems. In this sense, ethical behavior constitutes an integral part of one's identity, as discussed in Akerlof and Kranton (2000).

3. Causality

In contrast to the persuasiveness of evidence that various measures of voluntary association as well as a range of attitudes have shifted in the last few decades, Bowling Alone is surprisingly weak in terms of formulating a causal theory as to why social capital has declined in the United States.

One reason for this weakness is the absence of any well-delineated theory about the relationship between the underlying social norms which embody social capital, and the various activities which are alleged to signal its presence or absence. This absence in turn reflects Putnam's lack of attention to the nature of individual decisionmaking. An understanding of purposeful behaviors such as voting or the decision to join the Elks, requires an explicit formulation of the constraints, preferences, and beliefs that determine an individual's choice. This choice-based perspective can then be used to ask how individuals are influenced by the choices of others or by the past behaviors of a given individual. Without going through this type of analytical exercise, one cannot

develop a satisfactory causal theory of the relationship between social capital and observed behavioral patterns.

To see how a choice-based perspective alters the interpretation of evidence, Putnam, on pg. 1 of *Bowling Alone*, describes the large decline in membership for the Roanoke chapter of the NAACP. One can imagine many possible explanations that have nothing to do with social capital per se. If the issues facing the NAACP were less significant in 1990 than 1960, one would expect a large reduction in membership solely from this fact. Certainly, the elimination of de jure segregation laws is on a different moral level than the issue of affirmative action. Another reason might be the increase in economic opportunities for African Americans; as Putnam recognizes, participation in organizations takes time, so tradeoffs will occur. Again, this shift is consistent with a constant "stock" of social capital in the Roanoke community.

Of course, this would not mean that the exogenous shifts associated with the success of the civil rights movement or changes in economic opportunities cannot have dynamic effects on the stock of social capital. One could argue that civic participation in fact produces social capital, so that the reduction in voluntary activities leads, over time, to a reduction of social capital. However, this argument would require a theory of the relationship between social activities and social attitudes, one that is absent in *Bowling Alone*. Indeed one puzzling feature of the book is the absence of attention to the long history of social psychology experiments that have explicated many aspects of the influence of group memberships on individual behavior.

Further, Putnam's analysis focuses almost exclusively on a search for large exogenous events such as television or the passing of the World War II generation. This approach, however, fails to account for the ways in which phenomena such as levels of trust in a society are endogenous outcomes of social relations. Again, drawing on analogies from economic theory, a complete theory of trust would require an explanation of how trustworthy behavior and trusting attitudes coevolve; a natural way of doing this would be to posit a learning dynamic in which encounters with trustworthy behavior lead to trusting attitudes, and vice versa. One could then explore, using standard ideas from the theories of learning and rational expectations, conditions under which self-consistent levels of trust and trustworthiness emerge.

The modern economic literature on complementarities (cf. Cooper (1995)) makes clear how such feedbacks alter the way one thinks about causal analysis. Suppose that at some time t the level of trust in a society depends on a set of exogenous factors as well as the level of trustworthiness that existed at $t-1$. In this case, it is possible for there to be large social multipliers in the sense, that a small change in the exogenous factors can induce large changes in the steady state trust level. In an extreme version of this type of relationship, multiple equilibria in trust levels can exist. From this perspective, large differences in the levels of societal trust can exist for small differences in the exogenous factors. (And in the case of multiple equilibria, there can in principle be shifts across these equilibria. This would allow for changes in the level of societal trust without any of the sorts of exogenous changes that Putnam discusses.) Nothing in *Bowling Alone* addresses the possibility that the large changes that are documented reflect these feedback effects rather than large exogenous changes per se.

This absence of any well-developed endogenous mechanisms for social capital formation highlights a curious gap in the exhaustive empirical analysis of *Bowling Alone*. While there is extensive discussion of the time trends for various social capital measures, there is very little discussion of why cross-section variations in social capital exist. To be fair, there is some discussion of the role of social isolation in explaining the lack of labor market connections of the poor, but for a phenomenon such as state-level differences, no explanation or even discussion is given.

One should also note that there is some question as to whether the various declines, be they in voluntary organizations, youth groups, or social relations such as marriage, really measure declines in social capital per se. Individuals join groups for many reasons, including various forms of social pressure. These pressures have presumably decreased across time. Hence, the pressures to prove one is "one of the boys" by joining the Cub Scouts was, I think, far higher in the late 1950's than the late 1990's. So, among what sorts of individuals are declines in Cub Scout participation most likely? Clearly, those who derived the least benefit from the groups, i.e. those who did not acquire social capital from membership, but rather joined to avoid social pressure. Similarly, when rising divorce rates are treated as evidence of a reduced family social

capital, why should one conclude this rather than that it is those marriages that were already deficient in social capital that are now regularly dissolved?

One final concern with the discussion of social capital is the absence of any discussion of ways in which changes in the society will eliminate the need for many of the activities that are treated as expressions of social capital. The period of declining private philanthropy is one of increasing government support for social welfare. Social capital, as understood in many of the examples in *Bowling Alone*, emerges in response to some missing activity on the part of the government or by private markets (e.g. revolving credit associations among ethnic group members who cannot obtain loans).

More generally, social capital seems to arise in circumstances when there are socioeconomic "frictions," by which I mean circumstances where there is a need for collective action to overcome the failures of uncoordinated individual decisions. An example of this is the emergence of social norms that prevent overexploitation of a common resource or the existence of revolving credit associations among certain ethnic groups to facilitate economic advancement. As discussed in Durlauf (1999), to the extent that we are dealing with environments that exhibit externalities of various types, economic theory has made clear how it can be possible for government policies to alter individual incentives and aggregate outcomes. These alterations, further, have no necessary relationship to social relations per se. In principle, it is possible that increased school funding may overcome the need for parental involvement in education in poor communities. Similarly, appropriately targeted credit subsidies may overcome the need for revolving credit associations. This is not to say that government policies can always effectively substitute for social capital. It may be the case that government credit programs cannot assess individual creditworthiness as well as private associations, so that they will suffer from substantial waste; similarly, the use of legal penalties to enforce ethical conduct among diamond merchants is clearly more costly than a strong social norm for honesty.

4. Consequences

While the discussion of causality is unpersuasive, the discussion of effects of changes in social capital on individual and social outcomes is an order of magnitude weaker. This is true both from the perspective of arguments made based on secondary sources as well for arguments based on original research.

a. Secondary sources

The use of secondary sources in this book is typically polemical rather than scholarly. What I mean is that while a reader finds reference to a remarkable range of secondary sources, serious questions exist as to how these sources have been employed. To be fair, I cannot claim to have investigated more than a small fraction of the secondary sources employed. However, I have reviewed many of those employed in Chapter 19, "Economic Prosperity", as this is the area of my own relative expertise. For this chapter, there are considerable questions as to how these sources are used. For example, it is argued that an absence of social capital (defined here as labor market connections) is important in understanding labor markets for the poor.

"Recently, studies have found that such "weak ties" have an especially strong impact on the fortunes of people at the margins of mainstream economic and social institutions. As is usually the case, there is a lively debate over precisely how much job networks - or isolation therefrom - really influence the employment prospects of inner-city residents...Yet a mounting body of evidence suggests that social capital does matter, and its presence may help to surmount...employment barriers." (pg. 320)

How does Putnam justify this assertion? The study that is cited (via a footnote) as justifying this broad assertion is O'Regan (1993). This paper reports regressions of city-level youth unemployment rates against an index of the degree of concentration of poverty, which measures the extent to which poor families are residentially isolated in census tracts, along with a set of controls. In this study, a positive relationship between

this concentration index (which is found) and unemployment is interpreted as evidence of the importance of network effects.

This study, however, in no way justifies Putnam's claim. This regression has no direct measure of social networks, hence any claim that the regression relationship reflects information flows is speculative. Even on the narrowest interpretation, a regression of this type begs the question of why one observes group correlations of this type. Suppose that role models influence labor market behavior for purely cognitive reasons, so that youths who observe relatively few working adult males are less likely to equate work with one's identity as an adult male. The mechanism would produce exactly the same correlation as found in O'Regan.

This is not an isolated problem in the use of evidence in *Bowling Alone*. Throughout, Putnam treats very particular forms of social interactions, i.e. generalized reciprocity, norm enforcement or even information flows, as the exclusive channels through which social groups affect individuals. Role model effects and peer group influences are two examples of social interactions that do not fall under the rubric of social capital. Any claim that evidence of the type found by O'Regan supports a social capital explanation requires explaining why this is the only form of social interactions which can explain the empirical findings.

Further, there is considerable question as to whether empirical exercises of this type can provide compelling evidence of group effects. The literature on group influences on individual outcomes is well known to suffer from serious statistical problems related to identification, self-selection and unobserved heterogeneity (cf. Manski (1993), Brock and Durlauf (2000a)); these are not problems which are diminished by a multiplicity of methodologically flawed analyses. Evans, Oates, and Schwab (1992) show that these are not idle concerns. These authors show that an apparent relationship between teen pregnancy and the percentage of disadvantaged students in a high school disappears once one employs instrumental variables to account for the endogeneity of groups.

To be clear, my intent is not to disparage the O'Regan study (nor is it to unreservedly endorse Evans, Oates and Schwab), but rather to argue that this study does not justify the sweeping claim it is used to buttress. The criticisms I have made apply to many of the other empirical studies cited in *Bowling Alone*.

Similar overclaiming can be seen when specific examples of the role of labor market connections are explored. In discussing black teenage unemployment, Putnam states

"...the frequency of church attendance is one of the strongest predictors of whether inner-city black youths will become gainfully employed. The youth's religious beliefs have almost no impact on unemployment, suggesting that it is the social networking aspect of churchgoing, not the religious aspect, that is behind these youths' economic success." (pg. 321)

As in the O'Regan case, the actual study on whose basis this claim is made, Freeman (1986), does not support the assertion. First, the study did not find impressive evidence of any correlation between church attendance and labor market outcomes. Freeman in fact states that

"churchgoing has a powerful negative impact on socially deviant activity and a positive impact on school-going but only a modest positive impact on employment or time worked and relatively little impact on wage rates or annual income." (pg. 364)

Indeed, at the standard 5% statistical significance level, the hypothesis that churchgoing has no effect on either employment and wages could, for various model specifications, be accepted. (I mention this primarily because this is the standard by which other studies cited in *Bowling Alone* purport to find evidence in favor of social capital type effects.) Further, the claim that the churchgoing correlation is not due to religiosity per se is unfounded. Since the only measure of beliefs is via survey answers, it is perfectly plausible to conclude that actual attendance differentiates those youths who pay lip service to religious beliefs versus those whose lives are in fact influenced by them. Alternatively, it is possible that church attendance is correlated with unobserved individual character traits such as self-discipline which influence labor market outcomes. Freeman's original paper makes quite clear that these alternatives cannot be ruled out by his study. While the empirical observation on churchgoing and labor market performance is consistent with Putnam's preferred social network interpretation, it is equally consistent with a number of other perspectives.

More generally, *Bowling Alone* suffers from a problem that pervades social science, the overstatement of the implications of particular empirical studies. The fact that in a given data set, one finds a statistically significant coefficient of a particular sign far too often treated as justifying a claim that the associated variable is a causal determinant of the process under study. This not to say that causal inference in social science processes is essentially impossible, as suggested by Freedman (1991), for example, only that it is far more difficult than the facile citing of papers. At some level, what is missing in *Bowling Alone* is a systematic effort to first identify plausible alternative explanations for the various observed correlations of interest, and second, explore how one would discriminate between these different theories. Instead, one sees a substitution of quantity of documentation for quality of inference. The deep difficulties associated with causal inference, as I have very briefly delineated in the case of group influences, do not become less problematic because many studies draw the same unsupported conclusions.

The overwhelming use of different studies to buttress various claims also leads to internal contradictions in the text. To give one example, Putnam notes one study of unemployed women in Los Angeles, which found that "for most of these women, the person who was of the most direct help lived outside their own neighborhoods." (pg. 320). But if information flows are not determined by residential proximity, then the specification in the O'Regan study cannot be correct.

I would also note that in the interests of popular accessibility, *Bowling Alone* is filled with anecdotal empirical claims that do not stand up to scrutiny. On pg. 287, the suggestion in Los Angeles to rename LA International Airport after Jimmy Stewart is an example representing "an effort to recapture a time when public-spiritedness really did carry more value." Why is this a better explanation than the Hollywood connection to Southern California? And how would this interpretation be altered when one considers the actual renaming of the Orange County airport after John Wayne? Does this event represent evidence of incipient warmongering among these same Southern Californians? Of course, in isolation, this is a petty objection; but multiplied enough times it is indicative of the way in which evidence is marshalled.

b. Original analysis

Bowling Alone also contains some original research on the effects of social capital at a statewide level. In these analyses, a statewide index of social capital (which is extremely highly correlated with percentage of the population in a survey who agree with the statement "Most people can be trusted") is employed to understand how statewide levels of various socioeconomic outcomes differ. These socioeconomic measures include indices of educational quality, health, and crime. In the text, evidence for a relationship between a social capital index and a given socioeconomic outcome is presented in the form of graphs of the statewide observations of one versus the other. In addition, Putnam also describes, in footnotes to the discussion of these graphs, how the bivariate relationships between a given social capital index generalize to more formal statistical analysis. Typically, this amounts to describing a regression of some statewide outcome against the social capital index and some additional control variables, and then commenting that the coefficient on the social capital index is statistically significant. These additional variables include state level measures of ethnic composition, rural/urban mix, and income inequality.

However, it is difficult to see how the set of empirical analyses presented in Bowling Alone can be very informative. In order to make this argument I want to proceed in two steps. First, I wish to discuss why the bivariate graphs in the body of the text are not informative in terms of understanding whether social capital matters. Second, I will turn to Putnam's multivariate analyses to see whether the reasons one would be skeptical of the graphs have been adequately dealt with.

As Putnam of course understands, the basic problem with the bivariate analyses he presents is that such exercises can never distinguish between causality and correlation. As I have mentioned, in each graph, one finds a strong correlation between higher social capital and desirable outcomes. But what is one supposed to make of this? If one were to present a theory which stated that better educated, more affluent, and healthier people are more likely to adhere to liberal ethical values, including a belief in the essential goodness of human nature, would this be any *ex ante* less plausible than the assertion

that the causality goes from the social capital measures (which, recall is operationally a trust measure) to these others?

To give a sense of the problems with bivariate analyses, I took Putnam's social capital index and the percentage of African Americans in each state. One finds a strong negative relationship between these variables. What should one make of this? Obviously it would be silly to assert that high social capital reduces the percentage of blacks in a state. One could, I suppose, argue that racial tensions reduce social capital, so that causality runs the other way. However, such an argument cannot be justified by the data I have described. One reason why this is so is that the state observations are not "conditionally exchangeable," which means that after subtracting off the part of social capital attributable to percentage of blacks, the residuals for any two states are *ex ante* indistinguishable. In other words, there are many reasons why two states may have different levels of trust. Unless one believes that these additional reasons are uncorrelated with the percentage of blacks, then one cannot make causal inferences.

My discussion of exchangeability might appear to be a convoluted way to describe omitted variable bias. I use the exchangeability language to highlight a deep problem with statistical analyses that use aggregate objects such as states. This problem is comparability of the observations. What can be learned from running a regression or constructing a graph with statewide observations? If the goal is a statement of socioeconomic structure, such an exercise implicitly requires that there exists an invariant structure across the observations that can be identified in the presence of whatever unobservable heterogeneity, along with this structure, jointly determines the variables of interest. For the statewide measures Putnam uses, it is difficult to see how one can claim to learn anything of this sort. North Dakota and New York, for example, differ across such dimensions as ethnic diversity, urban/rural population distribution, and the degree of income inequality. One can make similar observations for any pair of states. Taken together, state-level differences of this type make it very easy to think of explanations for the social capital/social good correlation that are due to these differences rather than anything about these variables *per se*. My own conjecture is that the social capital index is reflecting some combination of ethnic and economic homogeneity, relative absence of urban centers, and general affluence.

To repeat, Putnam buttresses his graphical analyses with a description of regressions which do attempt to control for different sources of state-wide heterogeneity. One problem with these descriptions is that they typically amount to reporting statistical significance, of the social capital coefficient as opposed to giving any sense of how this variable quantitatively matters in terms of improved explanatory power of regressions, resolution of outliers, etc. More important, it is unclear from these descriptions whether these multivariate regressions in fact are successful in doing this. To see why, one can again employ the idea of exchangeability (see Brock and Durlauf (2000b) for a detailed discussion of these ideas).

Intuitively, what one ideally wants in a regression exercise of the type Putnam conducts is to be able to say that once one has controlled for social capital and the other variables in a linear regression, that the errors in the regression are exchangeable. Exchangeability of the errors, in this context, means that a researcher does not have way of distinguishing the error in one state from another. More formally, it means that the joint distributions of the all combinations of the errors are symmetric, so that one does not have a reason distinguishing the errors of the different states according to the identities of the states. The reason that this is a valuable benchmark is that if one does not believe the errors in a model are exchangeable, then it is incumbent on a researcher to explain why the regression is interpretable as revealing structure. This follows because the sources of exchangeability violations include factors which render a structural interpretation of a regression untenable. In the current context, two reasons for possible exchangeability violations are omitted variables and coefficient heterogeneity. The former I have already discussed. The latter refers to the idea that the effects of a one unit change in a variable such as the Gini coefficient may differ across states. This is, after all, what a structural regression purports to tell us. Notice that an exchangeability violation due to coefficient heterogeneity can be caused by nonlinearities in the data generating process.

What one cannot tell from the cursory footnote descriptions is whether these regressions which buttress the graphical exercises have achieved this exchangeability standard. Is there evidence of coefficient heterogeneity, or would a one unit change in the percentage of African Americans in North Dakota really have the same effect as

New York? Are there systematic regional differences in wealth or occupation that have not been accounted for and which would bias the results? Is the Gini coefficient an appropriate measure of inequality within a given state? Are the control variables a good proxy for the causal explanations of regional heterogeneity that have appeared in the urban economics and regional science literatures? Unless one believes that these types of questions have been adequately addressed, then the multivariate regressions can be subjected, at least qualitatively, to the same criticisms as the bivariate graphs. The bottom line in my judgment is that *at the level described in the text and footnotes* the analysis in *Bowling Alone* has not come close to the appropriate standard for drawing firm inferences.

c. The identification problem

The criticisms I have made of both the secondary and primary sources is that they have little ability to discriminate between a social capital explanation versus some other. In fact, given *Bowling Alone*'s conceptualization of social capital, one could argue that they have virtually no power to discriminate between a deficit of social capital or something else as a cause of socioeconomic differences across the states. Early in *Bowling Alone*, we are told

"A society of many virtuous but isolated individuals is not necessarily rich in social capital." (pg. 19)

If a community of isolated virtuous citizens does not possess social capital, then how can a decline in social capital be associated at an aggregate level with decreases in voting, increases in crime, etc. or at an individual level with poorer economic outcomes as opposed to a diminution of virtue per se?

Put differently, my various criticisms represent ways of saying that the analysis of the effects of social capital suffers from deep identification problems, problems that are largely ignored, outside of some occasional pro forma references to the difficulties of empirical social science and a few informal suggestions concerning directions of causality from social capital to socioeconomic outcomes. Identification problems are,

of course, endemic to social science. But this does not mean that they can be ignored; rather, the judgments necessary to make these inferences need to be made explicit. As Heckman (2000) comments:

"The information in any body of data is usually too weak to eliminate competing causal explanations of the same phenomenon. There is no mechanical algorithm for producing a set of "assumption free" facts or causal estimates based on those facts." (pg. 91)

While *Bowling Alone* is to be commended for its integration of qualitative information and quantitative data analysis, it misses a great opportunity to use this combination of sources to constructively address the deep identification problems that necessarily arise in any effort to generalize about American society. As argued in Brock and Durlauf (2000b), the interplay of qualitative and quantitative evidence will be essential in untangling causality in social science. What *Bowling Alone* needs is an explicit description of the joint determination of social capital and socioeconomic outcomes, so that one can adduce the conditions under which the effects of social capital on outcomes is identified. By then evaluating these conditions using the wealth of qualitative evidence Putnam has brought together, one could then develop a persuasive case that social capital matters.

5. Social goods and ills

One important feature of *Bowling Alone*, especially when contrasted with the insouciant tone of much of the social capital literature, is its development of a relatively nuanced view of the possibility that social capital may not be an unalloyed virtue. In the chapter "The Dark Side of Social Capital," Putnam delineates some of these possibilities. Following Portes (1998) among others, he argues that social capital can lead to pressures for conformity to mediocrity (à la Sinclair Lewis' *Babbitt*). Putnam does argue, however, that as an empirical matter, individuals who engage in civic activity appear to be more tolerant and open-minded than those who do not.

While this discussion is valuable, it does not, in my mind go far enough. To the extent that social capital constitutes a set of mechanisms which describe how intragroup relationships reinforce certain types of behaviors, one cannot conclude that any presumption exists as to whether this reinforcement is or is not desirable. Borrowing from Durlauf (1999), consider the case of racial segregation in the South. My reading of the history of that period suggests that social capital, as understood by Putnam, was an important component in perpetuating racial isolation. Why? To the extent that any member of a white community who violated segregation norms by hiring, socializing, or treating with dignity African Americans was himself subjected to social sanctions, then the social capital of these communities acted as an enforcement mechanism. In a famous example, James Coleman (1988) explained the absence of contracts among wholesale diamond merchants who lent each other many thousand of dollars of stones by the ostracism that anyone would experience for failure to honor an agreement. This is exactly the same mechanism that could constrain a white storekeeper from hiring a black.

The example of the enforcement of segregation norms illustrates a more general principle: social mechanisms that enforce certain types of community behavior logically lead to correlated behaviors, not necessarily good ones. Hence, discussions of social capital which do not specify how socially desirable versus socially undesirable behaviors are selected are necessarily question begging.

In fact, there are good reasons to believe that the negative consequences of group memberships are intrinsic to group identification, which would seem to be necessary for Putnam's social capital to flourish. A range of experiments in social psychology have documented how group identification can lead to intergroup stereotyping and hostility. In the celebrated Robbers' Cave experiment, Sherif et al (1961), demonstrated how this could occur in even the most seemingly benign contexts. These psychologists explored the influence of group memberships by assigning teenage boys to arbitrary groups designated as Rattlers and Eagles while living at a camp in Robbers Cave Park, Oklahoma. This assignment led to open hostility between the two groups, replete with the sort of stereotyping normally associated with racism. My own reading of this and many similar experiments renders me very skeptical that the bridging social capital that

Putnam emerges is a very realistic possibility in the tightly knit social networks he admires. And as compellingly described in Glover (2000), the bonding effects of social capital can be associated, because they work against equal esteem and valuation of “the other” in exactly the ways hinted at by the Robbers Cave experiment, with many of the worst events of the twentieth century.

6. Policy

The failure to clearly specify either what social capital is or how it is causally explained is reflected in the recommendations that appear in the last chapter of the book. Putnam's "policy" recommendations include the following

"So I challenge America's clergy, lay leaders, theologians, and ordinary worshipers: Let us spur a new, pluralistic, socially responsible "great awakening," so that by 2010 Americans will be more deeply engaged than we are today in one or another spiritual community of meaning, while at the same time becoming more tolerant of the faiths and practices of other Americans." (pg. 409)

"So I challenge America's government officials, political consultants, politicians, and (above all) my fellow citizens: Let us find ways to ensure that by 2010 many more Americans will participate in the public life of our communities—running for office, attending public meetings, serving on committee, campaigning in elections, and even voting." (pg. 413)

Such recommendations suffer from exactly the same problem as much of Putnam's characterization of social capital; namely they are functional as opposed to substantive. In formulating recommendations in this way, Putnam is implicitly assuming that there must exist some way to support any sort of desired observed behavior as a social equilibrium. If an author were to conclude a study of horrors of war by recommending that "governments act to ensure world peace," he would be understandably derided. It is unclear why one should react differently here. Further, Putnam undersells the complexity of the very objects he wishes to change. Had he called upon political leaders to promote

"a resurgence of nationalism, one that reinvigorates dedication to one's country without engendering hostility to minority groups or other societies"

I believe most social scientists would question whether such a thing is possible. The reason for skepticism is simple: nationalist sentiments simply do not work the way the proposition requires. Similar skepticism is warranted that some sort of new religious movement can simultaneously promote all the desiderata Putnam wants. To even begin to assess such a question, one would need a theory of why religious sentiments wax and wane. Such a perspective is completely absent in *Bowling Alone*, which thinks about religion exclusively as an instrument to promote social capital. It is unsatisfying to treat religious participation as nothing more than one of many possible social activities. Certainly, much of the political activity of the religious right does not create much optimism that an upsurge in religious sentiment can be produced which is simultaneously conducive to toleration, at least not if one is liberal, a nonbeliever or gay. Interestingly, in his discussion of the "dark side" of social capital, Putnam distinguishes between a colonial Salem Massachusetts with and without witchcraft trials; the latter is treated as an "example" of his desired civic community. Nothing in *Bowling Alone* hints at why this counterfactual could have been possible. In this sense, the book is remarkably ahistorical. One would at least want these recommendations to be consistent with findings in the social psychology and related literatures.

7. Conclusion

In short, *Bowling Alone*, despite its impressive compendium of facts concerning voluntary organizations in America and its admirable attention to the attitudes and beliefs of the American public, is ultimately unsuccessful as a piece of social science scholarship. Its failings reflect much of the ambiguity and sloppiness which have pervaded the social capital literature. If my criticisms of this book, and by implication the larger social capital literature, are correct, then an interesting question is why the social capital idea has found such popularity in the academic and policy communities, not to mention the high degree of public interest. My own guess is that the popularity

of social capital reflects a widespread belief that conventional economic approaches to behavior seem inadequate for understanding problems such as the social pathologies of the inner city. By conventional economic approaches, I am referring to models of individual behavior in which the psychological and sociological influences on individuals are treated as having second order significance. The economic approach to human behavior has become important throughout the social sciences; the attractiveness of social capital arguments stems, I suspect, from a recognition of limitations to conventional versions of this choice-based approach. Yet while I certainly remain convinced that much of current social science research, especially economics, works with an "undersocialized conception of man" (Granovetter (1985)), *Bowling Alone* ultimately does relatively little to substantively address this problem.

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