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What Do They Know and How Do They Know It? An Examination of Citizen Awareness of Context

Published in

American Politics Research

2005, 33(4):492-520

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This is a pre-typeset version of a peer-reviewed paper published in *American Politics Research* developed for deposit on the SIUC institutional repository. All references should refer to the published version, details given above.

Abstract

The connection between the individual and her aggregate geographic environment, usually defined as the neighborhood, is a key component of the contextual model of social influence. However, there is substantial anecdotal evidence that people have very little knowledge or connection to their neighborhood. In this paper we explore the connection by using data from the South Bend Study (Huckfeldt and Sprague 1985) to answer two questions. What do people know about objective conditions of their neighborhoods? Second, do these conditions influence perceptions people have of their neighborhoods? We find that (a) people have a good deal of knowledge about the objective conditions, and (b) even after controlling for individual factors, these conditions positively influence how people perceive their status within the neighborhood. In short, there is a connection, albeit an imperfect one, between the individual and the geographic context.

Geography plays a prominent role in some explanations of political behavior. High profile examples can be seen in contemporary analysis of political problems, such as work by Oliver (2001), which suggests that the suburbanization of America has dramatic negative consequences for levels of engagement. Similarly, Robert Putnam (2000) argues that urban sprawl and the decline of neighborhood attachments have had a detrimental influence on our stock of social capital. Less renowned, but more prolific, examples of geographic influence on citizens can be found in the literatures on voter participation (e.g., Highton 2000; Huckfeldt 1979) and citizen political attitudes (e.g., Huckfeldt and Sprague 1995; Putnam 1966).¹

When geographic units overlap political boundaries – as in the study of state registration laws – then the theoretical justification for causal attributes measured at that level of analysis is clear. However, it is often the case that geographic boundaries are being used to delineate the more amorphous concept of social context. This means that, in practice, an implicit assumption behind geographically-oriented studies is that location matters because the physical boundaries of a ward, neighborhood, city, or any other similar of analysis is analogous to the social environments that in the aggregate influence individuals.

Very little attention has been devoted to investigating the theoretical grounding for using geographic boundaries as a measure of social context (Books and Prysby 1991). While it may be the case that social environments ground in local geography are salient enough to shape political behavior, it may also be possible that the effect is an illusory one based more on aggregation bias than a true causal linkage. One way to tackle this problem is through improved data and methods (Achen and Shively 1997); another is to look for other observable implications of the theoretical link between geography and social context (on this point see King, Keohane and Verba 1994, 223-4). Towards this latter end, we empirically investigate three questions in this paper: Do citizens understand their surrounding geographic

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¹ See Books and Prysby (1991) and Huckfeldt and Sprague (1993) for a more complete review of the relationship between geography, social context, and citizen behavior.

environment? Are there distinct asymmetries of this understanding (or lack thereof) across individuals? Does understanding of the geographic environment impact political behavior?

We examine these questions with data that provide information on citizen's neighborhoods and their views of them. While many of our measures are admittedly rough, we examine the relationship between an individual's perceptions of her neighborhood and the reality of existence. We use survey data that asks for a citizen's appraisal of her neighborhood in economic or political terms, and we compare this appraisal with the objective reality of neighborhood conditions.

GEOGRAPHY, SOCIAL CONTEXT, AND POLITICAL BEHAVIOR

A commonly used approach for linking community life and individual behavior that exploits geographical boundaries is the contextual model of political behavior. In general terms, this model posits that social environments probabilistically influence individual behavior (Huckfeldt 1983, 1984; Huckfeldt and Sprague 1987, 1988; McPhee 1963; Berelson, Lazarsfeld, and McPhee 1954). The term <u>social environments</u> refers to the social, political, and demographic composition of any social space (Huckfeldt and Sprague 1995, 10), while a <u>social space</u> is any formal or informal group in which a person is likely to have social interaction such as churches, neighborhoods, communities, places of employment, schools, friendship groups, family groups, and so forth. The mechanism in this model is a process of *social learning* rooted in interaction with other people (McPhee 1963; Huckfeldt and Sprague 1995) or observation of other politically-relevant cues, such as yard signs in an election campaign (Huckfeldt and Sprague 1992).

The standard approach in studies of context is to examine the effect that an aggregate-level compositional measure has upon an individual behavior or attitude. The aggregate variable can be either geographic or social, for example, the percent Democrat in a neighborhood, and covariation between the individual variable and the aggregate variable is taken as evidence of a contextual effect. This covariation becomes particularly interesting if the individual response measure is contrary to what the individual measures would predict. For instance, if you are a high income conservative, yet you vote Democratic, and your neighborhood votes overwhelmingly for the Democratic Party, this is evidence that your context

works to influence your vote. Through persuasion, pressure, and the provision of contextual information in more subtle ways, context provides the means for you to act contrary to what we would expect given your individual characteristics.

Although the contextual model is flexible enough to be used in a variety of social contexts (e.g., Huckfeldt, Plutzer, and Sprague 1993), geographically-bound environments play a central role in this tradition (e.g., Books and Prysby 1991; Huckfeldt 1986; Huckfeldt and Sprague 1995; Berelson, Lazarsfeld, and McPhee 1954). In part this is true because a geographic boundaries in physical space tend to roughly correspond with the social construction of the neighborhood. As a measurement strategy, then, operationalizing social environments in geographic terms aids empirical analysis by simplifying the need to clearly demarcate the social environment, an amorphous and fluid concept.

Additionally, using geographic boundaries to operationalize the contextual model is attractive because it is one of the more stable social environments in which people interact. Even in a world where people are more mobile geographically and less attached to one particular place, geographically bounded social environments represent one of the more stable components of people's lives. Putnam (2000, 205) notes, for example, that mobility has actually dropped from the 1950's (where it was 20%) to the 1990's (where it was 16%). People may travel further distances in their day-to-day lives, but they are still rooted at a residence, which, of course, is located in the social and geographic location of the neighborhood.

Although geography is a convenient – and perhaps even substantively motivated – means of organization for the contextual model, it may not be an appropriate measure of social context or causally linked to political behavior. As suggested in the introduction, the results in these models are open to other interpretations. One particularly vexing possibility is that the factors which draw people to a particular location, such as good schools and high property values (Tiebout 1956), may lead people to cluster together in such a way that looks like a causal effect when in fact it is some unmeasured individual characteristic that is producing the behavioral change.

A second source of criticism, which exacerbates this situation, is that little direct evidence shows that people understand even basic features of their local environment, such as how their neighbors are

doing financially or whom they are supporting politically. If people do not exhibit any understanding of their local context, then it poses a serious challenge to an assumption deeply embedded in the link between geography, social context, and political behavior – that the local geographic environment influences people's beliefs and behaviors *because they are learning about it*.

Finally adding to fuel to the skeptic's fire is indirect evidence that people are becoming increasingly ignorant of their local social and political geography. The social environment of today is one of increasing complexity – with the revolution in telecommunications, the explosion of the internet, and the (relative) ease with which people can travel, information diffusion has changed substantially (see Wuthnow 1998, Chapter 4; Cairncross 1997). An individual no longer has to rely upon local sources for information. For example, one can have friends that are in other neighborhoods, cities, regions, states, or even countries, and keep in touch as little or as often as the beneficiaries of the relationship require (Baybeck and Huckfeldt 2002). A logical extension of this is that as our day-to-day lives have become more fluid, geography matters less; our relationships transcend the geographic boundaries of the neighborhood and our connectedness to the neighborhood has lessened.

WHY DOES KNOWING MATTER? FINDING THE LINK BETWEEN INDIVIDUAL AND CONTEXT

Do geographic units capture meaningful social environments that influence human behavior?

One way to tackle this problem is to look for evidence that people possess accurate information about their information. If context influences people via a process of social learning, then the implication is that people are exposed to information from the social environment contained in a particular geographic unit.²

If a person receives no information from the environment, there is very little reason to believe that the environment would influence the individual. But as John Zaller's (1992) work on public opinion shows us, exposure is but one part of the equation; for information to be effectual, it must also be internalized and accepted by the person. As such, we expect that people must be able to demonstrate some knowledge

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² In this context, exposure can come in the form of human interaction (e.g., political discussions) or from other non-interactive cues (e.g., visual cues provided by home improvements, political yard signs, or even the cars our neighbors drive).

or understanding of their environment in order for it to be a causally relevant factor. Finally, this information must affect actual behavior for it to then be considered a contextual effect.

To see why such knowledge is crucial for understanding contextual effects, consider the case of an individual with very little neighborhood contact: An office worker who lives with her family in a middle-class suburb of a metropolitan area. The neighborhood has at best a tangential relationship to her everyday life; she works 15 miles away in an office building in a different suburb, her husband works an even further distance away, and her children spend the day at the public school 8 miles away in yet another suburb. The mornings are rushes to get everyone where they need to go, the evenings filled with extracurricular activities, and the weekends with personal errands at malls and other shopping complexes usually some distance away from the residence.

Nowhere in this scenario is there any direct contact between this office worker and her neighbors. In fact, even informal contact is rare; she meets people through work or the children's schools, and the likelihood of her meeting and interacting with neighbors is very low. The vast majority of the time spent in her neighborhood is not an integral component of life, so there is very little reason to believe that she would have *any* knowledge of the neighborhood environment in which she lives. As this discussion implies, opportunities for contact with fellow residents of one's neighborhood are rare; such contact is simply not a part of every day life for many people. And, without any exposure or receipt of the information contained in the neighborhood social environment, a contextual effect consistent with the model outlined in the previous section is unlikely to exist.

For this reason, most geographically-oriented contextual models at least implicitly assume a link between the individual and the aggregate via a mechanism of local political knowledge (but see King 1996). Neighborhoods – or any other geographic aggregate unit – are convenient units of geography, but intuitively may have very little social meaning to an individual in a fast-paced American society. We empirically test this basic theoretical construct by answering the following questions: What do people know about their geographic surroundings? Do perceptions of neighborhoods vary as a function of actual neighborhood conditions? What factors distort or improve people's understanding of their local

environment? Are people who exhibit knowledge of the neighborhood more likely to be influenced by context?

Toward this end we test two hypotheses. The first hypothesis is that people's perceptions of their surroundings reflect knowledge about their neighborhood, controlling for other individual factors that might shape perceptions. This knowledge could be learned either through casual observation or informal social interaction, but it is critical that knowledge exist in order for geography to produce a contextual effect. The second hypothesis is that people who exhibit knowledge about their neighborhood context are more strongly influenced by that context than those who are ignorant of their surroundings.

We acknowledge that these represent fairly stringent tests of the link between contextual model and geography. The slow drip of everyday life, with mundane social interactions in the driveway and passing note of the neighborhood's yard signs, may expose people to relevant information without them exhibiting any notable change in understanding. In such a situation, people may be exposed to information without enough awareness to state with any precision what their local area is like. For this reason, rejecting our hypothesis does not necessarily nullify the contextual model or applications that exploit geographic classifications. But we argue that people whose perceptions of the neighborhood are unrelated to characteristics of the neighborhood – those who have nothing to show for the information exposure – have not necessarily been causally influenced by their context. Exposure to information without some acceptance or receipt of that information renders it meaningless.³

THE SOUTH BEND STUDY

Our analyses are based on data from a survey administered in South Bend, IN during the 1984 presidential election (Huckfeldt and Sprague 1985). During the course of this panel study, approximately 2500 South Bend residents were interviewed in at least one of three survey waves. The South Bend instrument included a wide variety of questions that measure perceptions of the social, economic, and political character of their local context; Table 1 provides a list of four questions we analyze in the

³ Even if this argument is rejected, we would suggest that, in the least, confirmation of this prediction is strong evidence *on behalf* of the model, strengthening the connection between context, geography, and political behavior.

empirical portions of this paper. There are two types of questions. The first group asks respondents to report their perceptions about current neighborhood conditions, such as whether people are doing better or worse and which presidential candidate will carry the neighborhood vote. The second group consists of questions asking respondents to compare their education and income to their neighbors' characteristics.

[Insert Table 1 about here]

The task of the paper is to determine the accuracy of these individual neighborhood perceptions, establish whether the neighborhood social context affects individual perceptions, and whether that knowledge influences political behavior. Along these lines, one important feature the South Bend Study provides is a stratified sampling technique that randomly selected respondents within well-defined neighborhoods (for details see Huckfeldt and Sprague 1985; 1995, Chapter 1). Within fifteen separate neighborhoods this approach typically obtained between 80 and 100 useable survey responses on any single question (the exact number differs from question to question due to missing data and respondent drop out rates). Since respondents can be grouped by their neighborhood of residence, a geographically-bound social environment, we obtain reasonable measures of social context by aggregating individual survey responses.⁴

We test our hypotheses by comparing individual perceptions to these aggregate measures, which estimate neighborhood conditions. For example, we assess whether neighborhood economic conditions improved or worsened by aggregating responses to the survey question which asked each respondent whether their family economic situation improved, worsened, or stayed the same over the past year. We then compare this aggregate measure to individual perceptions of the *neighborhood* in order to judge how much people have learned about the neighborhood. Although this approach may yield measures that are somewhat imprecise due to measurement error and sampling error, they have the advantage

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⁴ To obtain measures of the social environment via aggregation, it is important not to include each participant's response while determining the social context in his or her environment. Doing so prevents situations in which a respondent's own attitude is being used to predict his or her own attitude. We have taken the necessary precautions in the aggregation routine. The result is that individuals in the same neighborhood do not have exactly the same values for their contextual measures. However, the large number of responses in each neighborhood ensures that they are roughly the same.

corresponding directly with substance of the problem (unlike, say, census data). In short, we sacrifice some reliability for face validity.

WHAT PEOPLE KNOW ABOUT THEIR NEIGHBORHOOD

The best place to begin a study of how much geography matters is to investigate what individuals do and do not know about geographically-bounded social environments. Here we examine whether individual perceptions about neighborhood conditions are accurate, where accuracy is judged by comparing individual perceptions to our estimate of "actual" neighborhood conditions described above. If the respondent's perception is in the same direction as our aggregate measure, we judge it to be accurate, and vice versa. For example, respondents were asked whether or not they had more, less, or about the same education as their neighbors. We judge the accuracy of these perceptions by comparing them to the average level of education for other respondents in that neighborhood. If a college-educated individual thinks that she is more educated than her neighbors, the answer would be correct if the average level of education in the neighborhood was less than sixteen years. Likewise, the answer would be incorrect if the level of education was sixteen or more years.

The methodology for calculating an accurate perception can be subtle. Because the perception question has three categories – variants of less than, the same, or more – requiring the objective neighborhood indicator to be *exactly* the same is far too strict. For example, if a respondent answered that the neighborhood financial condition has not changed (a response of zero on a three-point scale), it would be a bit conservative to expect that the average response of the 80 or so other neighborhood residents would be exactly zero. We loosen this restriction by classifying an accurate perception as being one that is within a half-point of the neighborhood average – for example, an individual response of no change would be correct if the average neighborhood response is between -0.5 and 0.5. This classifies respondents who see the general social and political contours of the neighborhood as being accurate.

What do people tend to know about their neighborhoods? Table 2 reports the proportion of respondents holding accurate perceptions about their neighborhoods. A few interesting patterns emerge in these data. Generally speaking, over half of the respondents have accurate perceptions about their

neighborhood on each indicator. For example, 54 percent offer correct judgments of the neighborhood financial condition while 59 percent know whether the family is better or worse off than the neighbors. The results also suggest that people understand the political characteristics (presidential vote choice) of the neighborhood, which may just be a function of the landslide that was the 1984 presidential contest. It is easy to guess that the neighborhood is going for Reagan when Reagan won overwhelmingly.⁵

[Table 2 about here]

Figure 1 provides an aggregated view of respondent knowledge by adding together the four individual measures from Table 2 and graphing the distribution. From this we find that roughly two-thirds of respondents offer two or three correct perceptions about neighborhood conditions and a near majority of about 48 percent has three or more accurate perceptions. In contrast, only about 3 percent have no correct perceptions. All in all, the typical person is capable of forming at least a couple fairly precise and accurate perceptions about her neighborhood. This pattern is consistent with studies of general political knowledge, where most people possess some correct perceptions about politics and relatively few know everything or nothing (Delli Carpini and Keeter 1994).

[Figure 1 about here]

These are encouraging results, especially to the extent that they suggest that people learn about their immediate geographic surroundings. Most know a good deal about the political and social contexts of their neighborhoods. However, this is a very basic investigation of how individuals can and cannot learn about geographically bound social environments, so deeper analysis is warranted. In particular, it is important to investigate the factors that shape perceptions of the neighborhood: What factors influence how people develop perceptions about the social environment encompassed by local geography?

²One of the difficulties in examining this topic centers on how to determine what constitutes knowing about the context. As the discussion above implies, we advance one particular definition of what is a "correct" answer. But if we used the stricter definition – that is, the neighborhood average must be zero in order for a "stayed the same" response to be judged correct – we still find substantial levels of knowledge. By that standard, the percent correct on the four questions is 31%, 67%, 25%, and 18% respectively. While the stricter standard obviously depresses the

PERCEPTIONS OF NEIGHBORHOOD CHARACTERISTICS

The above findings demonstrate that people do possess a substantial amount of knowledge about their geographic surroundings, but do not speak to how people learn about their geographic surroundings. If the contextual model we outline has merit, and people learn about their local geographic context, perceptions of the neighborhood should vary as a function of what the aggregate neighborhood looks like. If people are not learning about their neighborhoods, and instead are basing their perceptions on other factors, then we should find no relationship between these two factors. Thus, we predict that individual perceptions of political, economic, and social conditions are related to our estimate of neighborhood conditions.

A basic correlation between contextual information and perceptions may not necessarily reflect a process of social learning, as the contextual model posits; other factors may play a role in how people learn about their aggregate conditions. We therefore control for other processes that might look like a contextual effect but are in actuality an individual-level process. The most obvious alternative hypothesis is individual experience. In forming judgments about the neighborhood, people might simply extrapolate from their personal experience. On the question of whether the neighborhood financial condition has improved, worsened, or remained the same in the past year, for example, a respondent might reflect on his or her own situation and formulate a judgment consistent with their individual life. Even if this person has noticed his or her neighbor home on workdays or had a conversation with someone who is worried about losing their job, that is only part of the neighborhood story and individual circumstances may supplement the gaps in their information about the neighborhood. Individual circumstance might also be important stems from the fact that people often live and associate with people much like themselves. If people extrapolate from their own lives to their judgments of neighborhood conditions, they could possess "correct" perceptions even if they possess no information or knowledge about their neighborhood. This is, in fact, consistent with other possible interpretations of contextual effects, where the effect is

number of answers judged as "correct," we find these to be relatively high numbers given the difficulty of the test and further support for our conclusions.

interpreted as a function of personal selection into the social context rather than social influence (Finifter 1974; MacKuen 1990).

People may also glean information from two other sources – membership in a neighborhood organization and newspaper readership. People who have access to these sources of information about the world, the city, and their neighborhood may exhibit systematically different perceptions about their local context. Unfortunately, without knowing what the information content is of the groups or in the local newspaper, we cannot make specific predictions about how they will bias neighborhood perceptions. But if they do influence perceptions, people who belong to the same groups and read the same paper should exhibit similar behavior and have the same bias – except if their neighborhood differs. These two variables, measured as the frequency with which people read the *South Bend Tribune* and whether or not someone belongs to a neighborhood group, are included in all models.

Finally, learning may occur through the simple process of showing up, that is, of living in the neighborhood for a long period of time. Through sheer repetition of daily life (leaving the house, going to work, coming home), one should be able to pick up cues about one's residential surroundings. The less residential mobility, the more information provided through this almost osmotic process. Thus we include a measure of how long, in years, a respondent has lived in South Bend.

Current Financial Well Being. Our investigation begins by examining retrospective evaluations of the neighborhood economic situation. The South Bend respondents were asked to assess whether other families in their neighborhood were better off, worse off, or about the same financially than in the previous year. They were also asked whether their own family economic situation had changed in the past year. Respondents were allowed to report that the economic situation of their family, neighborhood, and the nation were better (coded 1), worse (coded –1), or the same (coded zero). Measured as the average across all neighborhood respondents, actual neighborhood conditions serve as the contextual measure. Individual responses to this question serves as our measure of the relevant personal condition influencing perceptions of the neighborhood. The first column of Table 3 reports the results from an

ordered logit model predicting the effect of these variables, newspaper reading, neighborhood group membership, and mobility on perceptions of the financial well-being of the neighborhood.

[Table 3 about here]

Consistent with our expectations, the positive and significant result for the neighborhood condition implies that, if the neighborhood improved, an individual was more likely to answer that the neighborhood improved. Likewise, respondents in neighborhoods where the economic situation had worsened were more likely to report that the neighborhood situation had worsened. These results suggest that social learning does occur – people are aware of changes in their geographic context. A respondent's personal financial situation also exerts a statistically significant effect on impressions of the neighborhood. Belonging to neighborhood organizations, reading the local newspaper, or living in the community for a long period of time do not influence people's perceptions in a consistent manner.

Table 4 shows the effect of personal and contextual characteristics on respondent perceptions. Each column in this table provides a probability for one of the three dependent responses, controlling for individual economic well-being and the aggregate characteristics. Individual characteristics exert the strongest substantive effect on neighborhood perceptions. For example, a respondent whose family was better off in the past year is 48 percent *less likely* to perceive her neighborhood as worse off when compared to a respondent whose family was worse off, even though for both respondents the aggregate neighborhood is in fact worse off. Moreover, the worse-off family in this neighborhood had *only* a 50 percent probability of forming a correct perception. While this bias may reflect the general economic optimism surrounding the 1984 election, undoubtedly personal characteristics exert a pull on these opinions.

[Insert Table 4 about here]

Neighborhood condition – the contextual supply of information – is still a relevant factor. The last row of Table 4 illustrates the effect of moving a family from the worst off neighborhood to the best off neighborhood and it contains three interesting findings. First, such a change in the contextual

environment increases the probability of an "accurate" perception by about 25 percent when it is consistent with personal conditions. Second, the effect of context is generally about one-half the magnitude of the personal characteristics. Third, for the extreme contextual conditions represented here, the probability of forming an accurate perception is highest when both the context and individual circumstance point in the same direction. Both are necessary for accurate perceptions.

Votes for President in the Neighborhood. Our next question focuses more directly on neighborhood politics. The South Bend Study includes questions that asked respondents which candidate would win the neighborhood presidential vote, in this case Mondale or Reagan.⁷ To create a measure of personal preferences, we created a measure of whether each person stated a preference for Mondale (coded –1), Reagan (coded 1), or that they were unsure (coded 0).⁸ We then found the average value of this measure within each South Bend neighborhood, providing a rough indication of who will actually carry the neighborhood. This variable has a mean of .11 (favoring Reagan), with extremes of -.34 (pro-Mondale) and .55 (strongly for Reagan). While it might be argued that this represents an "easy" test of respondent knowledge due to the largely uncompetitive nature of the 1984 presidential election, that is countered somewhat by the strong Democratic tradition in South Bend (Huckfeldt and Sprague 1992).

The results are provided in the second column of Table 3. Consistent with the previous findings, both neighborhood and individual factors affect individual perceptions about the neighborhood. The distribution of neighborhood voting preference exhibits a strong positive effect on individual perceptions while individual political preferences also positively influence perceptions of the neighborhood vote.

[Insert Figure 2 about here]

Figure 2 shows the substantive effect of individual and contextual characteristics on respondent perceptions about the presidential race in the neighborhood. Both individual preference and contextual information affect people's perceptions in meaningful ways. For instance, respondents who favor Reagan

⁷ While respondents were allowed to answer with Mondale, Reagan, or Other, we collapsed the opinions into a dichotomous measure of whether or not the respondent believed Reagan would carry the neighborhood canvass. The ten respondents who did not answer Reagan or Mondale were dropped from the analysis.

always have a higher likelihood of believing that he would carry the neighborhood vote than do Mondale supporters. This gap is strongest where the contextual cue is least helpful – when the neighborhood is close to being even split, the probability that a Reagan voter believes Reagan will carry the neighborhood is 30-percent higher than that of the Mondale voter. Even more clear from this graph is the effect of contextual information. Whenever there is a fairly clear local majority (more or less than .15 on the neighborhood vote choice variable), we can see both types of voters have relatively high probability of possessing a correct perception.

Although the findings in this figure are similar to those in Table 2, it is important to point out that the contextual condition is much stronger than the individual condition on this political measure. When a neighborhood's majority becomes obvious, even opposing voters seem capable of figuring that out (though, surprisingly, Mondale voters were a little slower on the uptake). The non-competitive nature of the 1984 presidential campaign nationwide may have an impact here, yet both types of voters in neighborhoods supporting Mondale were likely to that Mondale would win the neighborhood. It might also reflect the fact that political campaigns may activate local political networks and spur learning about politics while no comparable mechanism exists for other dimensions of the local environment (e.g., McClurg 2004; Huckfeldt 2001). Unfortunately our data do not allow us to adequately unravel this problem, leaving it for future researchers.

Relative Levels of Education and Income within the Neighborhood. In this section we expand our findings to investigate yet another kind of perception – an individual's judgment about where he or she fits into the neighborhood social environment. The task here is somewhat different than the previous two measures, as the respondents are now required to identify their place in the neighborhood social context. These questions provide a rigorous test of our hypothesis, because people probably understand that not everyone in their neighborhood is the same; but at the same time, there are good reasons for people to

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⁸ This measure includes all respondents – those who planned on voting, those who were unsure, and those who did not plan on voting.

believe that they live around people "just like" themselves. For these measures, people may rely more heavily on personal characteristics to form their opinions rather than on contextual information.

In this section, we use the third and fourth questions listed on Table 1. For these two measures, we created a trichotomous variable that measured whether a respondent was worse off (coded -1), better off (coded 1), or about the same (coded 0) as those in their neighborhood. The independent variables in these models follow the same pattern as in the previous analysis, using newspaper readership, neighborhood group membership, and mobility. We include an individual's personal education or income and the average education or income of the respondent's neighborhood. It is important to note that our theoretical expectations for the aggregate variable change somewhat because of the wording of the dependent variable. In the preceding models, a *positive* coefficient value was consistent with the contextual learning hypothesis. In this case, the expectation is the opposite. As the average level of education and income rises in a neighborhood, we would expect that an individual is *less likely* to believe that he or she is more educated or well-off. This implies that a *negative* coefficient is consistent with the argument.

The third and fourth column of Table 3 show the results of two ordered logit models estimating the effect of the independent variables on judgments of how each individual fits into the neighborhood social environment. As before, the only two statistically significant variables are an individual's personal characteristic and the neighborhood characteristic. These results provide evidence that individuals with higher levels of education or income have a higher probability of thinking they are more educated than their neighbors, and vice versa. However, as before, these judgments are tempered by the actual characteristics of the neighborhood.

[Figure 3 about here]

For purposes of illustration, Figure 3 shows the change in the probability a respondent believes his or her family is on the whole more educated when compared to other families in the neighborhood. As was the case in Table 4, this graph demonstrates the power of individual characteristics. When controlling for different levels of neighborhood education, increasing individual levels of education

across the scale can change the probability between 40 percent and 80 percent (depending upon which neighborhood a respondent lives in). In Panel B we see a similar finding; respondents with higher levels of education are more likely to believe that their family is more educated than respondents with a low or even average level of education.

These graphs also illustrate the substantively important role that neighborhood characteristics play in structuring these perceptions. In Panel A, for example, the only time the curves move over the 50 percent line (which is substantively important) is when respondent education approaches its upper end, and then only for respondents in average to lowly educated neighborhoods. Panel B highlights the same dynamic. The probability for a respondent with seventeen years of education (the maximum) decreases from about 82 percent in the least educated neighborhood to just over 40 percent in the most educated neighborhood. A similar trend exists for respondents with an average level of education, while a respondent with the minimum level of education (just 2 years) sensibly has an insignificant probability of a positive response here. Similar to our demonstration in Table 4 but unlike that in Figure 2, the individual effect is strongest here but perceptions are still strongly related to contextual conditions.

Summary. Perceptions of geographically-determined social environments are influenced by two factors. The first is individual experience. In the absence of information about how educated or well-off one's neighbors are or what their politics are, it is reasonable that people might project their own characteristics and experiences into their beliefs about the neighborhood. This can be seen in the first two models outlined in Table 3, where personal income and vote choice exert a strong positive effect on perceptions. People sensibly use their own circumstance to determine how they fit into the socioeconomic strata of their neighborhood. Second, perceptions are linked to features of the contextual supply of information – the neighborhood that surrounds them. In each of the models, an estimate of the true contextual condition predicts individual perceptions about those conditions. Altogether, these contextual findings suggest that individuals learn about their immediate social environment.

Further evidence for this story can be obtained by comparing the results across the models. In essence, there are two different types of dependent variables used in this section. One asks respondents to

estimate some contextual condition in the neighborhood while the other asks them to judge their relative position in that context. If people base their perceptions strictly on the relevant information available in the neighborhood, the contextual condition would be the only predictor for the first model. Likewise, both individual circumstance and contextual circumstance would predict the second type of dependent variable. In these results, individual circumstance does bias perceptions of environmental conditions; contextual information is not the only factor driving perceptions of context. However, in the other case, our expectations are borne out. Sensibly, people's personal characteristics matter quite a bit in determining their position in the neighborhood social strata. Most important, the relevant conditions of the context are significant predictors in all of the cases. People form perceptions of their local social environment because individuals learn about the context in which they live.

THE EFFECT OF CONTEXTUAL KNOWLEDGE ON POLITICAL BEHAVIOR

To demonstrate the role of knowledge in mediating contextual effects, we first turn to the work of Huckfeldt and Sprague (1995). To show that social dynamics are related to election campaigns, they estimate the effect of three variables on the likelihood that South Bend respondents voted for Reagan: individual education, average neighborhood education, and an interaction between these two variables. They acknowledge that the model is simplified, but note that "we do not intend to suggest that education affects preference in any direct sense, but rather that (1) higher-social-status (better-educated) people are more likely to support Reagan, and thus (2) people surrounded by higher-status people are more likely to come into contact with Reagan supporters" and be similarly influenced (Huckfeldt and Sprague 1995, 86). Based on this approach, they argue that there are important contextual influences at play in the election because vote choice is directly influenced by mean neighborhood education and there is a significant interaction effect as well.

We use this as a point of departure. If our argument holds, we should find that contextual effects of education are strongest for those people who can accurately demonstrate knowledge of their local

context. If "knowers" are less influenced by the context, then it would provide strong evidence that contextual effects are driven by some other process *even when* people prove capable of forming accurate perceptions about their neighborhood. Our measure of local knowledge in this case is whether respondents can accurately identify which presidential candidate was likely to carry the neighborhood vote prior to the election. We choose this measure because it reflects the knowledge most directly relevant the dependent variable.

Table 5 displays the results of models designed to test our hypothesis. The first column provides a baseline – the same model reported by Huckfeldt and Sprague for the 900 respondents we use to test our perceptions of the neighborhood vote in the previous section. Although the specific coefficients and t-values are different from what are reported by Huckfeldt and Sprague, they are similar in magnitude and significance. We find that all three variables are statistically significant and that mean neighborhood influences the vote both directly and through the interaction term.

[Table 5 about here]

As a first cut at our hypothesis, we split the sample into two groups – one group composed of those who could not correctly identify which candidate would carry the neighborhood vote and a second group composed of those with correct answers. The results, shown in the second and third columns of Table 5, are consistent with our argument. For those respondents who had an incorrect answer, we see that the Huckfeldt and Sprague model does not predict their behavior, suggesting that their neighborhood environment does not structure behavior. By contrast, respondents who had a correct perception are strongly influenced by context. This is illustrated by the statistical significance and large coefficients (relative to the baseline results) associated with neighborhood education and the interaction effect.

⁹ Their application uses Boyd and Iversen's (1979) advice on estimating contextual models. Accordingly, individual education is measured as its difference from the neighborhood mean, while the neighborhood mean is measured as its difference from the sample mean.

¹⁰ The closest comparison is the second set of results in Table 5.1A on page 86 of Huckfeldt and Sprague (1995). They report an intercept of -15.40, an education coefficient of .85, a neighborhood education coefficient of 1.06, and an interaction effect of -.055.

Although this demonstration is consistent with our argument, it suffers from a key drawback – splitting the sample into two groups substantially reduces the number of respondents used to estimate results in the incorrect category. Consequently, the absence of statistically significant coefficients may reflect the size of the sample rather than the absence of an effect. We therefore estimate another model that introduces the knowledge measure directly as well as another interaction term – knowledge multiplied by neighborhood education. The shortcoming of this approach is that we have no expectations or interpretation for results associated with the coefficient for neighborhood knowledge directly, though it keeps the entire sample of 900 respondents intact.

Again the results, which are in the last column of Table 5, are consistent with our expectations. We first see that there are contextual effects on vote choice in this model, though the overall impact of neighborhood education (both via its direct effect and its interaction with individual education) is reduced in comparison to the baseline model. More important, people who have knowledge of the neighborhood are more strongly influenced by neighborhood education. This can be seen by contrasting the influence of neighborhood education for someone who displayed accurate knowledge (.74 + .50 -.07 x individual education) to someone who did not have an accurate perception (.74 - .07 x individual education). What this illustrates is that people who accurately could peg the neighborhood electoral outcome in advance of the election were more strongly influenced by their context.

SUMMARY AND CONCLUSION

Our paper begins with a simple question – do citizens learn enough about local geography to reasonably assess the social environment it binds? By virtually any benchmark, the answer is yes – over half of citizens accurately perceive their environment on the four conditions we examine. The results suggest that beliefs about the local context are influenced by real community conditions. A measure of the real social conditions in a neighborhood is a statistically significant predictor of perceptions, an effect that persists even when controlling for personal circumstance. We can confidently conclude that – to the extent people vary in their opinions about local context – perceptions of the local context are related to variations in the contexts in which respondents live. And while individual experience plays a prominent

role in these perceptions, in at least one case (the Reagan vote) local information plays the more dominant role. Finally, we provide additional evidence that people who understand political characteristics of their neighborhood are more strongly influenced by contextual variables. Altogether this evidence reinforces assumptions of the contextual model about social influence, and finds – contrary to what modern life would suggest – that people are not ignorant about the broad contours of their immediate geo-social and geo-political environment.

Although we take this evidence to support the geographic and contextual approaches, individual perceptions also play a role. People will use information from their own life to fill in some of the gaps in their knowledge, but this may also be related to the contextual conditions the individual experiences. Using personal circumstance may in part be a way of reasoning about the social environment. Individuals do not live in a vacuum – in order to define one's own situation, it is inevitable to compare it to the situation of others to find similarities and differences. This statement is supported by our evidence on how well people understand the place of their family and neighborhood relative to the broader social hierarchy.

Though we believe these results to be strong evidence about the potential of both social context and geography as analytic tools for analyzing the foundations of political behavior, there are some caveats that suggest future research is in order. Most notably, our data demonstrate that a number of people make *incorrect inferences* about conditions in their neighborhood. A substantial minority does not know about the conditions of their neighborhood, and finding out the reasons why would be useful. Second, we cannot accurately compute the extent to which people understand each individual component of the context. This prevents us from having a direct measure of knowledge about the geographic environment and forces us to use the modeling approach employed above. Further research using a design specific to the problem is required.

Do people pay attention to the events occurring in the geographically-bounded social unit of the neighborhood? The answer is a qualified yes. Our evidence indicates that although neighborhood is not everything, it is something – individuals are not isolated atoms, far removed from their surroundings.

Scholars interested in individual behavior should at least consider the geographic environment in which an individual lives when examining the factors that influence political behavior and attitudes.

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Table 1. Measures of Respondent Perception of Neighborhood Conditions. This table reports the question wording and descriptive statistics for six questions that we use to measure respondent perceptions of the neighborhood.

Туре	Category	Question
Assessing current neighborhood conditions	Financial well-being	Would you say that most families in your neighborhood are better off, worse off, or about the same financially compared with a year ago?
	Who will carry presidential vote in neighborhood?	How about in your neighborhood? Which candidate for president will carry this area? Mondale, Reagan, or Other?
Comparing your own family to the neighborhood	Financial affairs	When it comes to financial affairs, how do you and your family compare with other families in the neighborhood? Is your family better off, worse off, or about the same?
	Education	Compared with most families in your neighborhood, would you say your family on the whole is more educated, less educated, or about the same?

Table 2. How much do people know about their immediate locale? This table tabulates the number of respondents in the South Bend survey who have "correct" perceptions about the economics, politics, and education of their neighborhood. People are more well attuned to the politics of their neighborhood.

Perception	Percent with Correct Perception	Number of Respondents
Presidential candidate who will win the neighborhood vote	67%	1193
How well off R is compared to the rest of the neighborhood.	59%	1321
How educated R is compared to rest of the neighborhood.	56%	1477
Neighborhood financial conditions.	54%	2138

Figure 1. Histogram of Respondent's Local Knowledge. This graph shows a number of things about the distribution of knowledge on features of the local environment. First, a majority of respondents answered at least two questions correctly. Second, a substantial proportion of people (15 percent) do not get even one question correct.

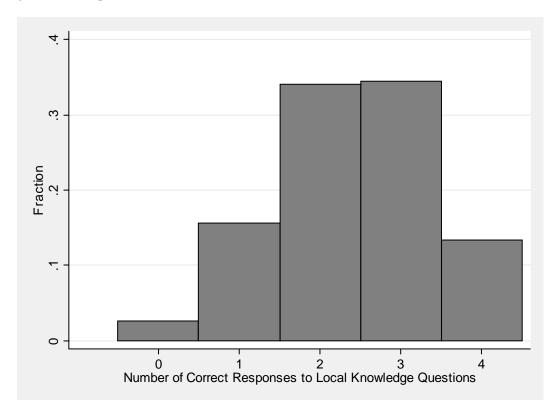


Table 3. The Relationship Between Respondent's Personal and Social Sources of Information and their Perceptions of the Neighborhood. These ordered logit models show that perceptions of the neighborhood are influenced by an individual's own personal circumstances and the actual neighborhood condition.

	Dependent Variable			
Independent Variable	Financial Well- Being	Neighborhood presidential candidate ^a	Relative Education	Relative Income
Personal	1.88*	1.35*	0.44*	0.54*
Condition	(0.12)	(0.17)	(0.03)	(0.05)
Neighborhood	2.01*	7.38*	-0.50*	-0.47*
Condition	(0.48)	(0.63)	(0.06)	(0.08)
Read Tribune	-0.03	0.19	-0.03	0.07
	(0.07)	(0.10)	(0.07)	(0.08)
Member of Neighborhood Organization	-0.14 (0.13)	0.15 (0.19)	-0.05 (0.12)	0.04 (0.14)
Years in South	0.00	-0.01*	0.00	0.01*
Bend	(0.00)	(0.005)	(0.00)	(0.00)
Cut Point #1	-2.25	-1.40	-4.74	-2.10
	(0.28)	(0.40)	(0.81)	(0.38)
Cut Point #2	2.24 (0.28)		0.17 (0.79)	2.70 (0.38)
χ ^{2 b} <u>N</u> Log Likelihood	324.87*	353.28*	211.79*	118.41*
	1150	873	1222	1116
	-778.62	-451.00	-799.62	-689.24

Standard Errors in Parentheses *significant at p<.01, two-tailed test ^a Logit model. All others are ordered logit models. ^b This is a Wald χ^2 test for the first, third, and fourth models. For the second model, it is a likelihood ratio

Table 4. Change in the Perceptions of Neighborhood Economic Condition. This table presents predicted probabilities, given certain neighborhood and individual conditions. Individual characteristics have a stronger effect on these perceptions, but aggregate characteristics are also important. The results imply that people learn about their neighborhoods beyond reasoning from their own personal experience.

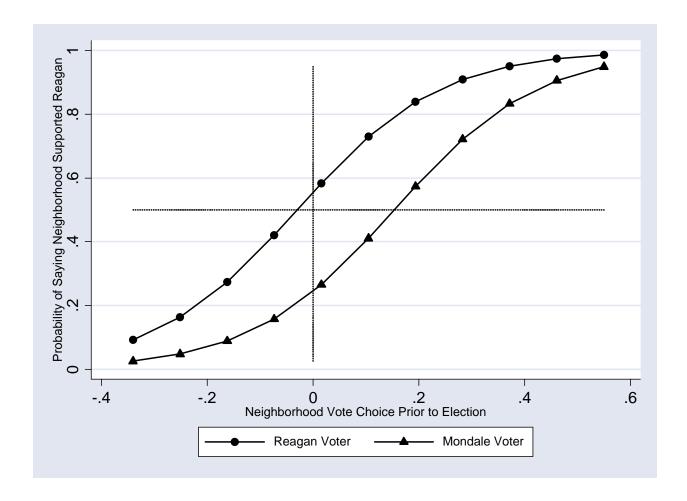
Actual Conditions	Probability a respon	dent answers families in	neighborhood are
Financially worst off neighborhood ^a	Worse off	About the same	Better off
Family worse off ^b	.50	.49	.01
Family about same	.13	.80	.07
Family better off	.02	.64	.33
Better off families – worse off families	48	c	.32
Financially better off neighborhood	Worse off	About the same	Better off
Family worse off	.24	.73	.04
Family about same	.05	.76	.19
Family better off	.01	.38	.61
Better off families – worse off families	23		.57
Change from best – worst neighborhood	Worse off	About the same	Better off
Family worse off	26	.24	.03
Family about same	08	04	.12
Family better off	01	26	.28

^aThis refers to the actual neighborhood condition, compiled by aggregating individual responses to the neighborhood level.

^bThis refers to the respondent's family condition. The question reads: "Would you say that your family is better off, worse off, or about the same financially compared with a year ago?"

^c Any cell where the change was non-monotonic over the range of the independent variable is left blank.

Figure 2. This figure shows the probability that a respondent thinks that Ronald Reagan will carry his or her neighborhood vote as a function of personal preferences and the actual level of support for Reagan in the neighborhood. Perceptions are strongly influenced by neighborhood conditions.

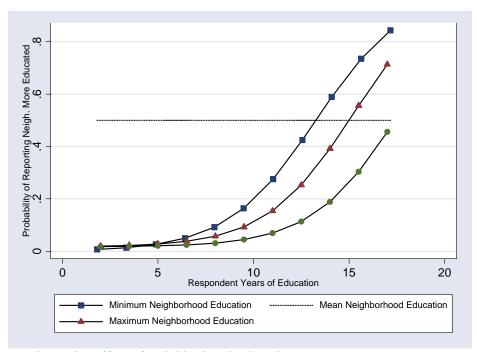


Note. Neighborhood Vote Choice can theoretically vary between -1.00 (everyone supports Mondale), 0.00 (everyone is unsure), and 1.00 (everyone supports Reagan).

Figure 3. Probability of Respondent Thinks Family More Educated than Neighborhood Families.

These graphs show that perceptions of where the respondent's family fits into the neighborhood social structure are a function of individual education and neighborhood education. They demonstrate both the powerful effect of individual characteristics and the substantively important role of neighborhood education in influencing these perceptions.

Panel A. The Effect of Respondent Education.



Panel B. The Effect of Neighborhood Education.

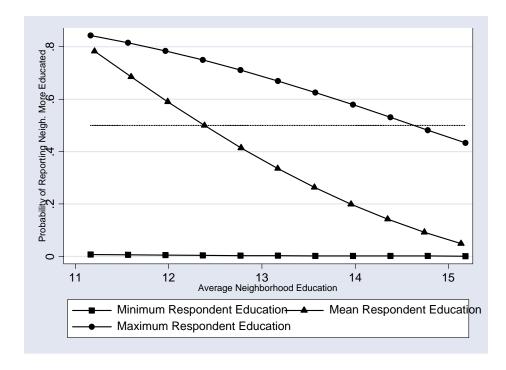


Table 5. The Effect of Knowing Neighborhood Political Preferences on Vote Choice. These logit models show the effect of correctly perceiving which candidate will win the neighborhood ballot on that individual's vote choice. The dependent variable in every case is the respondent's post-election vote choice. Each model builds on a specification originally advanced by Huckfeldt and Sprague (1995) to demonstrate the interdependency between individual and contextual characteristics.

Independent Variable	Huckfeldt & Sprague Specification	Sample Split by Perception of Neighborhood Political Preference		Interaction Model
		Incorrecta	Correct	
Individual education	0.69** (0.34)	-0.13 (0.86)	1.11*** (0.39)	0.94** (0.35)
Neighborhood education	0.98*** (0.36)	-0.45 (0.95)	1.44*** (0.41)	0.74* (0.40)
Individual ed. x Neighborhood ed.	-0.05* (0.03)	0.02 (0.07)	-0.08*** (0.03)	-0.07** (0.03)
Knows neighborhood vote				-5.25** (2.20)
Knows neigh. vote x Neighborhood ed.				0.50*** (0.17)
Constant	-13.27*** (4.68)	3.97 (12.09)	-18.71 (5.37)	-10.96 (5.11)
χ ² N Log Likelihood	42.53*** 900 -600.29	2.56 279 -174.89	34.57*** 621 -392.05	107.32*** 900 -567.39

^{***} p<.01, **p<.05, *p<.01

^a Respondents are divided here by their response to the second question in Table 1 which asked them to identify the candidate who would win the neighborhood ballot. In the final model in this table, this variable is added directly and interacted with neighborhood education in order to demonstrate the same thing.