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LOCAL CONTEXT, RETROSPECTIVE ECONOMIC EVALUATIONS, AND VOTING: The 1997 General Election in England and Wales

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Local context is widely believed to influence voting behavior with, for example, the voters' evaluation of the state of their local economy affecting whether they choose to reward or punish the incumbent government. Such reward-punish models apply in the United Kingdom at the national scale: those who believe that the government has delivered prosperity vote for its return, whereas those who believe that its policies have produced a worsening economic situation vote against it. This article shows that the operation of this calculus varies spatially, according to the level of unemployment in the voter's home area: the higher the local level of unemployment the lower the probability of someone who thought that government polices had delivered national prosperity voting for the incumbent government. It also shows that this is a consequence of cross-pressured situations. Those who thought that the government's policies had delivered both national and local prosperity were very likely to vote for it; those who thought that the policies had delivered national but not local prosperity were less likely to vote for it—especially in areas of high unemployment.

In a recent paper, Books and Prysby (1999) argued that studies of the relationship between retrospective economic evaluations and voting should take account of the local context in which those evaluations are formed and the consequent voting decisions. They presented data on evaluations of President Bush's economic performance, taken from the 1992 American Election

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Study, which showed that respondents' economic evaluations were related to the rate of unemployment in their home states, clearly suggesting the operation of a local contextual effect. People respond, they argued, not to the national situation but rather to their local situation—probably as it is presented to them in the local media. The present article builds on their foundation, looking at variations in voting in the 1997 general election in England and Wales according to respondents' evaluations of national standards of living.

Studies of retrospective economic voting—both sociotropic and egocentric—are based on a reward-punish model: Those who believe that the economy has been performing well, and credit government policies with that, will vote for the government, whereas those who believe that it has been performing badly, and blame the government for that situation, will vote against it. But when voting sociotropically, at what spatial scale do they make their decision regarding economic performance—at the national level or at some scale smaller than that? Books and Prysby's (1999) data, for example, suggested that respondents took account of their state's economic performance, but not that of their community within that state (defined as their home metropolitan area)—largely, they suggest, because local media focus on state-level economic data (such as unemployment rates), and it is these that influence voters' evaluations. On similar lines, Atkinson and Partin (1995) show that although voting decisions in senatorial elections are linked to presidential popularity, in gubernatorial elections perceptions of the condition of the state economy are crucial influences on the voter's choice.

Within Great Britain most economic performance data—notably those on unemployment levels and changes in dwelling prices—are reported for the country as a whole and for major regions (such as Scotland, Wales, Northern Ireland, and the nine 'standard regions' within England). Relatively little is reported in the national media at a more detailed scale. The United Kingdom has recently experienced strong spatial variations in economic performance at a variety of scales, however. These may be the basis of local contextual variations in evaluations of economic performance, and the voting decisions that follow, because they are apparent to voters in their everyday experience. They observe events in their local environments, talk about them to their neighbors, and, in some cases, hear about them in local media (local radio and—usually weekly—newspapers, many of which report local changes in unemployment rates and major contributors to those changes, such as plant closures and openings). In this article, we explore the hypothesis that voters respond to their local economic context, as well as to the national situation. In our study, we combined data from the 1997 British Election Study for voters in England and Wales with a newly created ecological data set containing information on each respondent's local area.[1]

RETROSPECTIVE SOCIOMETRIC EVALUATIONS AND VOTING IN ENGLAND AND WALES

The 1997 British Election Study (BES) included a cross-sectional survey of some 2,731 respondents in England and Wales.[2] They were asked a number of questions regarding economic conditions, including the following pair:

General standard of living
(. . . thinking back to the general election of 1992—the one where John Major won against Neil Kinnock) the general standard of living: has it increased a lot, increased a little, stayed the same, decreased a little, decreased a lot?
Why
Do you think this is mainly the result of the Conservative government's policies or for some other reason?

Cross-tabulation of the responses to the first of these questions against reported vote in 1997 shows the expected relationship—given that the Conservative party had been in power for the previous 18 years (Table 1). Those who thought that the general standard of living had increased a lot were more likely to vote for the incumbent government than for any other party. Those who thought it had fallen were more likely to vote for an opposition party, especially Labour, which had led the Conservatives in the opinion polls since late 1992. The punish component of the economic voting model is very apparent: those who thought that the general standard of living had increased a lot were *twenty-five* times more likely to vote for the incumbent government than were those who thought it had fallen a lot.

Turning to the second part of the question, the majority of the respondents

TABLE 1. Vote at the 1997 General Election According to Evaluations of Changes in the General Standard of Living (percentages of the row totals)

Evaluation	C	L	LD	O	DNV	N
Increased a lot	60.2	17.7	9.7	3.6	8.8	113
Increased a little	39.3	21.7	14.2	3.5	21.3	756
Stayed the same	24.4	34.4	15.3	4.6	21.3	783
Fallen a little	8.5	50.0	12.6	5.0	23.9	682
Fallen a lot	2.4	61.9	11.6	6.1	18.0	294
Don't know	13.7	33.3	12.7	9.9	30.4	102

Key to columns: C—Conservative; L—Labour; LD—Liberal Democrat; O—Other; DNV—did not vote; N—number of respondents.

associated the changes in general standards of living with government policy. As the last column of Table 2 shows, however, a larger proportion of those who thought that it had fallen blamed the government than was the case for crediting the government among those who thought that it had improved. (Of those who thought that the general standard of living had 'increased a lot,' 73 percent credited the government with this; of those who thought it had 'decreased a lot,' 88 percent blamed the government.) The greatest differences in voting were between those who credited/blamed the government for changes in the general standard of living, rather than 'other reasons.' Those who credited government policies with standards of living that had increased a lot, for example, were *thirty-seven* times more likely to vote Conservative than those who blamed government policies for them falling a lot (Table 2). Voting for the incumbent government was linked very clearly to evaluations of the impact of its policies on the national economic situation.

LOCAL CONTEXT: DEFINING THE SCALE

In recent decades, there have been substantial spatial variations in economic performance within the United Kingdom. The economic restructuring that characterized the 1980s saw major decline in many of the country's traditional

TABLE 2. Cross-tabulation of Vote at the 1997 General Election Against Evaluation of Changes in the General Standard of Living and the Attributed Reason for those Changes (percentages of the row totals)

Evaluation and Reason	C	L	LD	O	DNV	N
Increased a lot						
Government	66.3	12.5	11.3	3.6	6.3	80
Other	46.7	26.7	6.7	3.2	16.7	30
Increased a little						
Government	47.5	17.2	10.9	3.5	20.9	478
Other	22.7	31.5	20.7	3.2	21.9	251
Stayed the same						
Government	26.0	36.1	14.9	3.7	19.3	462
Other	21.3	31.1	17.1	6.0	24.5	298
Fallen a little						
Government	7.1	53.1	12.4	4.3	23.1	590
Other	16.7	29.8	14.3	9.4	29.8	84
Fallen a lot						
Government	1.8	63.3	11.3	6.1	17.5	275
Other	11.8	47.1	17.6	0.0	23.5	17

Key to columns: C—Conservative; L—Labour; LD—Liberal Democrat; O—Other; DNV—did not vote; N—number of respondents.

manufacturing industries, accompanied by substantial growth in service industries. There was a clear geography to these consequences of 'Thatcherism,' with the northern regions suffering from the manufacturing decline while regions further south benefited most from the service-sector growth (see Lewis and Townsend, 1989). This north-south divide was apparent in a number of indicators, not least the level of unemployment, and it remained in place through the 1990s, although slightly more muted. These spatial variations in economic prosperity were related—at an ecological scale—to variations in support for the Conservative party throughout the 1980s and, again in somewhat more muted more form, in the 1990s. (On the 1980s, see Johnston, Pattie, and Allsopp, 1988; on the 1990s see Johnston et al., 1998.) The implication was that people in the north blamed the Conservative governments for the economic situation there and voted against them, whereas those in the south credited them with delivering economic prosperity and voted to return them to power.

These are inferences from ecological data, however, and there have been few studies of spatial variations in economic voting and their direct relationships to the local context (see, however, Pattie and Johnston, 1995; Pattie, Dorling, and Johnston, 1997). One of the problems for such studies in the UK is the absence of data with which those relationships could be explored: general election voting returns are available for constituencies only (average electorate c.70,000), for example. Census data from which indicators of economic well-being can be derived are available at three scales: the constituency, the local government electoral ward (average population c.5000, though with great variation between urban and rural areas), and the census enumeration district (average population c.500). In the past, it has been possible to incorporate census data at the first two of these scales to enable studies of local contexts. Few studies have been undertaken, however, with only one published at the ward scale (Harrop, Heath, and Openshaw, 1991). The extent and nature of contextual variations in voting behavior in the UK is still largely based only on informed speculation, as in Miller's (1978) modeling using survey and ecological data at the constituency scale.

As part of a research project associated with the 1997 British Election Study (BES) we have built 'bespoke neighborhoods' for each of the respondents in England and Wales (though not in Scotland, because of data-matching difficulties). Using the enumeration districts as our building blocks, we identified for each respondent those districts containing the nearest 500, 1,000, 2,500, 5,000 and 10,000 individuals to her or his home, thus giving us detail on local contexts never before available. These are used in the analyses here; ward and constituency data are used for comparative purposes.

Books and Prysby (1999) argued that the unemployment rate is a good indicator of local economic conditions, as it is a widely cited index in media discussions. As noted previously, this is particularly apposite in the British

situation because of the spatial variations in unemployment associated with Thatcherism and its aftermath. Within the UK, however, there is no equivalent of the state for which unemployment rates are regularly reported. But many people are aware of local levels of unemployment without such data, both from their own social networks and from general observation and discussions of well-being in their area. A majority of the respondents to the 1997 BES reported that they either read a local newspaper or watch the regional TV news programs: 74 percent said they read a local newspaper at least once a week (most are weeklies) and only 11 percent said that they never do; 56 percent claimed that they watched regional TV news broadcasts daily (only 10 percent said that they never watch them). Discussions of local employment issues—plant closures and expansions, for example, as well as of national unemployment statistics—are common in those media, so that if there are local contextual effects in economic evaluations and voting in the British context, they should be related to the unemployment rates.

One slight problem with using this index is that the last date for which unemployment data are available at the enumeration district scale is the 1991 census. Unemployment fell substantially between then and the 1997 general election, but the spatial variations remained consistent—as demonstrated by other data available for the constituency scale only: the relative relief of the map of the geography of unemployment did not vary through the decade, even though its absolute relief did change substantially. Unemployment data are available monthly at constituency and ward scales. The correlation between the number unemployed at the time of the 1991 census and at the time of the 1997 general election was 0.94 at the constituency scale and 0.96 at the smaller ward scale.

The following analyses are in two parts. For the first, exploratory stage we have grouped the bespoke neighborhoods (and the wards and constituencies) into six categories according to their 1991 unemployment rates, as shown in the top block in Table 3. This enables us to illustrate the very substantial variations in unemployment at relatively small scales, which analyses at the constituency level do not disclose (the smaller the scale, the wider the spread of local unemployment rates). Second, to test whether there are significant relationships between local context and voting, holding constant economic evaluations, we use logistic regression analysis.

ECONOMIC EVALUATIONS AND VOTING

Because of the relatively small numbers of respondents who said that the general standard of living had either increased a lot or fallen a lot, for the exploratory analyses of variations in voting behavior according to local unemployment level we have reduced the number of categories to three: those who

TABLE 3. Voting Conservative by Evaluations of Changes in the General Standard of Living and Local Context (percentage in each cell voting Conservative)

Unemployment Level	n500	n1000	n2500	n5000	n10000	Ward	Const
			Number of respondents in each cell				
0.0–2.9	88	37	11	0	0	56	0
3.0–5.9	699	705	637	549	503	605	400
6.0–8.9	665	669	721	820	831	742	931
9.0–11.9	395	443	515	555	545	509	590
12.0–14.9	260	252	281	297	346	258	410
15.0<	557	558	499	443	439	560	400
			General standard of living improved				
0.0–2.9	41.7	*	*	*	*	50.0	*
3.0–5.9	48.7	50.5	54.9	50.5	48.9	52.3	52.0
6.0–8.9	44.8	41.9	41.7	48.4	49.5	45.7	46.1
9.0–11.9	43.8	43.2	35.4	34.2	34.2	33.1	42.1
12.0–14.9	34.7	41.9	40.6	30.1	34.3	33.3	25.0
15.0<	27.0	24.5	26.5	28.3	27.5	30.4	32.3
			General standard of living stayed the same				
0.0–2.9	44.4	*	*	*	*	*	*
3.0–5.9	36.1	37.2	40.8	42.9	42.0	38.9	39.8
6.0–8.9	28.9	29.0	28.6	30.6	31.5	31.1	30.1
9.0–11.9	22.0	20.2	19.4	14.2	15.2	16.6	22.3
12.0–14.9	10.1	11.8	14.1	14.2	12.8	12.3	12.2
15.0<	10.6	12.2	9.3	7.2	11.5	11.8	10.2
			General standard of living fell				
0.0–2.9	19.0	*	*	*	*	*	*
3.0–5.9	11.3	12.9	13.6	17.0	15.0	12.8	16.4
6.0–8.9	8.9	8.3	7.3	7.0	8.2	8.2	7.5
9.0–11.9	4.4	6.0	5.5	4.2	4.0	2,5	5.8
12.0–14.9	4.0	1.0	4.0	3.3	3.3	5.3	3.8
15.0<	1.7	2.2	2.5	2.5	3.5	4.0	2.8

*Less than 20 respondents in the cell.

Key to local areas: n500—nearest 500 neighbors; n1000—nearest 1000 neighbors; n2500—nearest 2500 neighbors; n5000—nearest 5000 neighbors; n10000—nearest 10000 neighbors; ward—electoral ward; const—Parliamentary constituency.

thought the general standard of living had (a) increased, (b) stayed the same, or (c) fallen.

In the context of the 1997 British general election, the important voting decision for the present analyses is whether or not the respondents chose to vote Conservative: those wishing to reward the government should have done so, whereas those wanting to punish it could either have voted for one of the

opposition parties (there was considerable tactical voting at the 1997 general election: Evans, Curtice, and Norris, 1998; Johnston et al., 1997) or abstained (turnout at the election was 71 percent, the lowest level since the Second World War). Thus, the remaining tables cover Conservative voting only, as the incumbent party whose economic record was the focus of the voters' reward-punish calculus.

The lower three blocks of Table 3 explore vote by retrospective evaluation at each of the seven spatial scales—the five bespoke neighborhood scales plus wards and constituencies. They show that, with very few minor exceptions, at all spatial scales the higher the local unemployment rate the lower the percentage voting Conservative—holding constant retrospective evaluations. Thus, for example, at the constituency scale among those who thought that the general standard of living had improved, 52.0 percent voted Conservative where the unemployment rate was less than 6 percent, compared to 46.1 percent where it was between 6.0 and 8.9, 42.1 percent where it was between 9.0 and 11.9, 25.0 percent where it was between 12.0 and 14.9 percent, and slightly larger (32.3 percent) where unemployment was more than 15.0 percent.

Table 3 shows that among those who thought that the general standard of living had improved, at every spatial scale the percentage voting Conservative in the areas where unemployment was above 15.0 percent was just over half of the comparable percentage where unemployment was below 6.0 percent. Among those who thought that the general standard of living had stayed about the same (the third block in Table 3), the percentage voting Conservative in the areas of highest unemployment was less than one-third of the percentage in the areas of lowest unemployment. Finally, among those who thought that the general standard of living had fallen, the difference between the areas of highest and lowest unemployment in their Conservative voting percentages was even larger: At the n5000 scale, for example, the percentage voting Conservative in the areas of highest unemployment was only one-sixth of that in the areas of lowest unemployment.

These tabulations suggest that whatever the respondent's evaluation of the general standard of living and the scale of the analysis, the higher the local level of unemployment the lower the Conservative vote. Respondents apparently took into account both the general (i.e., national) and their local situation when determining how to vote—and the poorer the situation locally the greater the likelihood of people voting to punish the government. To test that conclusion more formally, we conducted logistic regression analyses with Conservative vote as the dependent variable (coded 0 if the respondent did not vote Conservative in 1997 and 1 if he/she did). The independent variables were the five evaluation categories for the general standard of living (Table 1) and the local unemployment rate. The former were entered as dummy variables, with those

saying that the general standard had increased a lot as the comparator; the latter was the percentage unemployed in 1991 at the relevant spatial scale.

The results of these regressions are given in the first block of Table 4. In the first regression (the left-hand column), only the economic evaluations are included; the other seven include the unemployment rate at the scale indicated in the column heading. All of the regression coefficients are statistically significant at the 0.01 level or better, and have the expected signs. Thus, the worse the evaluation and the higher the local unemployment rate, the smaller the

TABLE 4. Logistic Regressions of Voting Conservative by Evaluations of Changes in the General Standard of Living and Local Unemployment

		Scale of Analysis						
		n500	n1000	n2500	n5000	n10000	Ward	Const
Constant	–1.45	–0.76	–0.71	–0.56	–0.47	–0.38	–0.62	–0.30
Change in general standard of living (comparator: increased a lot)								
Increased a little	–0.85	–0.90	–0.90	–0.93	–0.95	–0.95	–0.89	–0.93
Stayed the same	–1.54	–1.54	–1.53	–1.56	–1.58	–1.60	–1.54	–1.59
Fallen a little	–2.79	–2.77	–2.77	–2.80	–2.82	–2.83	–2.77	–2.82
Fallen a lot	–4.12	–4.23	–4.22	–4.23	–4.26	–4.27	–4.10	–4.14
Unemployment rate		–0.07	–0.08	–0.09	–0.10	–0.11	–0.09	–0.12
–2 log likelihood	2498	2360	2357	2357	2343	2343	2422	2413
Improvement		138	141	141	155	155	76	85
		With 1992 vote added						
Constant	–1.53	–1.15	–1.12	–1.05	–1.02	–0.95	–1.08	–0.79
1992 vote (comparator: did not vote Conservative)								
Voted Conservative	3.22	3.15	3.14	3.13	3.13	3.13	3.15	3.15
Change in general standard of living (comparator: increased a lot)								
Increased a little	–1.08	–1.11	–1.11	–1.11	–1.11	–1.12	–1.09	–1.12
Stayed the same	–1.50	–1.51	–1.50	–1.52	–1.52	–1.53	–1.50	–1.54
Fallen a little	–2.62	–2.64	–2.63	–2.63	–2.64	–2.64	–2.62	–2.64
Fallen a lot	–3.67	–3.84	–3.83	–3.83	–3.85	–3.86	–3.68	–3.70
Unemployment rate		–0.04	–0.04	–0.05	–0.05	–0.06	–0.05	–0.08
–2 log likelihood	1715	1655	1655	1653	1655	1654	1699	1692
Improvement		60	60	62	60	61	16	23

Key to local areas: n500—nearest 500 neighbors; n1000—nearest 1000 neighbors; n2500—nearest 2500 neighbors; n5000—nearest 5000 neighbors; n10000—nearest 10000 neighbors; ward—electoral ward; const—Parliamentary constituency.

probability of a Conservative vote. Comparison of the results at the various scales shows very little variation. As the scale of analysis increases, there is a slight rise in the size of the coefficient for unemployment rate (from –0.07 for n500 neighborhoods to –0.12 for constituencies), but model improvement (compared to the initial model, which excludes local unemployment rate) is less at the ward and constituency scales than the others. The implication is that people are particularly responding to contextual variations at the small scales represented by our bespoke neighborhoods.

The nature of the relationship with local context can be more fully appreciated by using the equations in Table 4 to estimate the probability that a respondent voted Conservative. For example, among individuals who considered that the general standard of living had increased a lot, the odds that they would vote Conservative were 0.45 if local unemployment at the n1000 scale was 1 percent and 0.10 if it was 20 percent, giving probabilities of voting Conservative of 0.31 and 0.09 respectively. There was thus a substantial difference in the likelihood of a person who thought that the national situation had improved voting Conservative according to the local situation, with similar differences at other spatial scales (at the n10000 scale, for example, the respective probabilities were 0.38 and 0.07). This was not the case with those who thought that general living standards had fallen a lot over the previous five years. At the n1000 scale, the probability of such a respondent voting Conservative was 0.01 where local unemployment was 1 percent and 0.00 where it was 20 percent. Similar differences occur at all other spatial scales. Thus, a person who was positive about the national situation was much less likely to vote for the incumbent Conservative party if local employment was high than if it was low, whereas a person who was negative about the national situation was very unlikely to vote Conservative whatever the local situation. Where local circumstances were inconsistent with respondents' views of the general condition of the economy, the local context created a cross-pressured situation, with a substantial number deciding to vote against the incumbent government as a consequence. But, for respondents who considered that general living standards had declined substantially, there was virtually no support for the incumbents, whatever the local situation.

One possible criticism of the results in the top section of Table 4 is that they relate to an underspecified model: the relationships shown may be spurious because they reflect the operation of other, excluded variables. This could be countered by incorporating a range of other independent variables, such as social class, selected to reflect known influences on voting in England and Wales. The process of class dealignment over the last four decades of the twentieth century has seen the decline in importance of many of these variables, however, with the implication that British voters are now much more responsive to the economic context at individual elections (see Sanders, 1997). Economic voting calculi now apparently dominate. Nevertheless, to incorporate other

major influences on voter choice in 1997 we have re-run the regressions incorporating one further variable—whether or not the respondent reported voting for the Conservative party in 1992.[3] A substantial proportion of the British electorate remains loyal to a party over successive elections—58 percent of those who reported voting Conservative in 1992 in England and Wales did so again in 1997 (Johnston et al., 1997). By holding constant the 1992 vote, therefore, we are not only implicitly incorporating independent variables that have a long-term influence on party choice, but also making our test of the influence of the impact of economic evaluations and local context much more stringent.[4] Our expectations are that: (1) those who voted Conservative in 1992 were much more likely to vote Conservative again in 1997; (2) those who thought that the general economic situation had declined were much less likely to vote Conservative in 1997, holding the 1992 vote constant; and (3) the higher the local unemployment rate, the lower the probability of a Conservative vote, holding constant both of the previous variables.

The second block of regression results in Table 4 confirms these expectations fully, with all regression coefficients statistically significant at the 0.01 level or better. Continuity in voting was clearly a major factor in 1997. Those who voted Conservative in 1992 were some 25 times more likely to vote for that party again in 1997, according to the first regression, which excludes local context. The regression coefficient of 3.22—indicating the log-odds of voting Conservative among those who voted Conservative in 1992—has an exponent of 25.03, indicating the relative likelihood of a person who voted Conservative in 1992 voting Conservative in 1997 compared with one who did not vote Conservative in 1992. Inclusion of local unemployment rate improves the goodness of fit—though again less so at the ward and constituency scales than at those of the bespoke neighborhoods. Local context was clearly related to voters' decisions whether to support the incumbent government in 1997.

Holding constant the 1992 vote changes the degree of the impact of local context on vote in 1997, but not the general pattern discussed above. Thus, for example, among respondents who did not vote Conservative in 1992 and who thought that the general standard of living had increased a lot, at the n1000 scale the probability of voting Conservative if local unemployment were 1 percent was 0.24, whereas if local unemployment were 20 percent it was 0.13; at the n10000 scale, the respective probabilities were 0.27 and 0.10. Local context mattered when it was not in line with the respondent's evaluation of the national situation. Among those who thought that the general standard had fallen a lot and who did not vote Conservative in 1992, however, the probability of voting Conservative was virtually zero whatever the local situation. Among those who voted Conservative in 1992, however, and who also thought that the general standard of living had increased a lot, the probability of voting Conservative in 1997 if unemployment was 1 percent at the n1000 scale was

0.88, whereas if unemployment was 20 percent the probability was 0.77; there were very similar differences at all other scales. The impact of local conditions on the probability of them voting again was less substantial, though significant, than was the case with those who did not support the incumbent party at the previous election.

The Question of Scale

The regressions reported in Table 4 show continuity in voting behavior between 1992 and 1997—the government party got much more support at the latter date from those who voted for it at the previous election. Retrospective sociometric evaluations were also clearly linked to support for the government party in 1997—the less satisfied voters were about the general economic situation, the lower the probability that they would vote for that party. In addition, local economic context was also related to voter choice—the higher the level of unemployment locally, the lower the probability of a vote for the Conservatives among those who were positive about the national economic situation.

But which scale was most important to voters—or was their response to local unemployment scale-invariant, with the same reaction whether the scale was that of their immediate neighborhood (the nearest 500 persons to their home) or their Parliamentary constituency (which averaged some 70,000 voters)? To answer that we have re-run the first block of regressions in Table 4 including local context at two scales instead of one, thus looking at very local variations within a wider context.

Each of the first block of regressions in Table 5 includes the constituency scale plus one other, smaller scale—from n500 to n10000. In every case, both variables are statistically significant (at the 0.01 level, or better), suggesting that voters were responding not only to the general level of unemployment in their home area, defined broadly as their Parliamentary constituency, but also to the level in their immediate local neighborhood. The probability of a Conservative vote declined the higher the level of unemployment in their constituency (equivalent in most cases to either their home town or to a major portion of a large city for those resident in the country's major urban areas), and declined even more in pockets of high unemployment within that constituency. People were responding to the local economic situation at both scales.

The second block of regressions in Table 5 involves a tighter packing of scales. The first four include both the n10000 scale plus one of the four smaller ones. There is some evidence that the probability of a Conservative vote was even lower in pockets of high unemployment at the n500 and n2500 scales, holding constant the probability at the larger (n10000) scale, but when the scales are close—the n10000 and n5000—neither coefficient was significant at the 0.05 level, indicative of collinearity between the two unemployment

TABLE 5. Logistic Regressions of Voting Conservative by Evaluations of Changes in the General Standard of Living and Local Unemployment Rate—Analyses at Two Spatial Scales

	a. Constituency and smaller scales							
Constant	–1.45	–0.30	–0.30	–0.27	–0.24	–0.23		
Change in general standard of living (comparator: increased a lot)								
Increased a little	–0.85	–0.93	–0.93	–0.95	–0.96	–0.95		
Stayed the same	–1.54	–1.56	–1.56	–1.57	–1.59	–1.59		
Fallen a little	–2.79	–2.79	–2.79	–2.81	–2.82	–2.82		
Fallen a lot	–4.12	–4.25	–4.24	–4.25	–4.27	–4.27		
Unemployment rate: scale								
Constituency		–0.07	–0.07	–0.06	–0.05	–0.05		
n10000						–0.08		
n5000					–0.07			
n2500				–0.06				
n1000			–0.05					
n500		–0.05						
–2 log likelihood	2498	2338	2339	2333	2334	2338		
Improvement		160	159	165	164	160		
	b. n10000/n5000 and smaller scales							
Constant	–1.45	–0.40	–0.40	–0.41	–0.40	–0.48	–0.48	–0.49
Change in general standard of living (comparator: increased a lot)								
Increased a little	–0.85	–0.94	–0.94	–0.94	–0.95	–0.94	–0.94	–0.94
Stayed the same	–1.54	–1.58	–1.58	–1.58	–1.59	–1.58	–1.58	–1.58
Fallen a little	–2.79	–2.81	–2.81	–2.81	–2.82	–2.81	–2.81	–2.81
Fallen a lot	–4.12	–4.26	–4.25	–4.25	–4.27	–4.25	–4.25	–4.25
Unemployment rate: scale								
n10000		–0.08	–0.08	–0.06	<u>–0.06</u>			
n5000					<u>–0.05</u>	–0.08	–0.09	<u>–0.06</u>
n2500				–0.04				<u>–0.04</u>
n1000			<u>–0.03</u>				<u>–0.01</u>	
n500		–0.03				<u>–0.02</u>		
–2 log likelihood	2498	2339	2340	2339	2341	2341	2342	2341
Improvement		159	158	159	157	157	156	157

Underlined coefficients are not significant at the 0.05 level.

Key to local areas: n500—nearest 500 neighbors; n1000—nearest 1000 neighbors; n2500—nearest 2500 neighbors; n5000—nearest 5000 neighbors; n10000—nearest 10000 neighbors; ward—electoral ward; const—Parliamentary constituency.

patterns. With the n5000 scale held constant (in all of the final three regressions) there is no evidence of smaller scale variations.

Again, estimating from the coefficients the probability of an individual voting Conservative in certain circumstances shows that the main impact of local effects was on those who were positive about the national situation, but lived in areas of relatively high unemployment. For example, using the first block of regressions in Table 5, among those who thought that the general standard of living had increased a lot and who lived in constituencies with very low unemployment (just 1 percent), the probability of voting Conservative at the n1000 scale was 0.40 if unemployment in their immediate neighborhood was 1 percent and 0.20 if it was 20 percent. The worse the very local situation, the smaller the likelihood of the respondent voting Conservative—even though at the wider, constituency, scale the situation was very good. Similarly, using the second block of regressions in Table 5, for a respondent who thought that the general situation had increased a lot and unemployment at the n10000 scale was just 1 percent, the probability of voting Conservative if unemployment at the n1000 scale was also 1 percent was 0.38, whereas it was 0.25 if it was 20 percent. There were no differences in the probabilities of voting Conservative according to the local situation among those who thought that general living standards had decreased a lot, however; they were virtually zero at all scales.

In responding to their local context, therefore, it seems that British voters responded to both the general situation in their home area, as represented by the level of unemployment in their Parliamentary constituency, and also to the situation in their immediate milieux—represented by the bespoke neighborhoods used here, relating to the areas containing the nearest 500–10,000 persons to the respondents' homes. Those who thought that the national situation was very good were less likely to vote Conservative if local unemployment were high, than if they lived in areas where it was low. The less rosy their picture of the national economy, however, the smaller the differences in their voting behavior according to the local context, with virtually no differences for those who thought the situation had deteriorated substantially and did not support the Conservatives at the previous general election.

REWARD AND PUNISH

Table 2 shows that respondents varied in their support for the Conservative party not only according to their economic evaluations, but also whether they attributed credit/blame to government policies for the perceived situation. In this section we take both of those into account, exploring whether the probability of voting for the government party was related not only to the general economic situation, but also to the respondents' linking of that situation with government policy. There was a nearly tenfold difference in propensity to vote Conservative

between those who thought the general standard of living had increased and attributed that to government policy (66.3 percent of those people: the 'rewarders') and those who thought it had fallen for the same reason (7.1 percent: the 'punishers').

Table 6 shows the percentages voting Conservative in these categories at the various spatial scales. (There were too few observations in a number of cells for those who thought that the general standard of living had fallen for 'other reasons,' and so that block of data has been excluded.) With very few slight exceptions, the higher the local level of unemployment, at every scale, the lower the support for the incumbent Conservative party—whatever the respondents' evaluations of changes in the general economic situation and their causes. In addition, the gap between areas in the support given to the Conservative party is greatest where the general standard of living is perceived to have fallen because of government policy, and least where it is thought to have increased: electoral punishment was greatest where the national situation was pessimistically evaluated and the local context was worst.

These conclusions based on the cross-tabulations were formally tested through logistic regressions, again holding constant reported vote in 1992. The results in Table 7 entirely confirm the expectations. Those who voted Conservative in 1992 were some 24 times more likely to vote Conservative in 1997 than were those who did not support the government party at the first of those elections.[5] With regard to the economic evaluations, compared to those who said that the general standard of living had improved because of government policies, all other groups were less likely to vote Conservative in 1997. The biggest difference was between the comparator group and those who thought that the general standard had fallen because of government policies. The probability of a Conservative vote among the latter group was only 0.11 of that for the former, comparator group, indicating a tenfold difference in propensity to vote Conservative according to whether the government was credited with economic prosperity or blamed for failure. Finally, holding constant 1992 vote and evaluations of changes in the general standard of living, there was a significant relationship (at the 0.01 level) between probability of voting Conservative and local unemployment rate: the higher the rate, the smaller the probability.

Interpolation of the situation in particular contexts for certain voter types again illustrates the extent of the influence of local context. For example, the probability of a Conservative vote in 1997 for a respondent who did not vote Conservative in 1992, and who thought that the general standard of living had increased a lot because of government policy since then, was 0.24 if he or she lived in an n1000 area with an unemployment rate of 1 percent and 0.13 if the unemployment rate there was 20 percent. As before, the probability of voting Conservative among those who evaluated the national situation positively

TABLE 6. Voting Conservative by Evaluations of Changes in the General Standard of Living, Attribution of the Reasons for Changes, and Local Context (percentage in each cell voting Conservative)

Unemployment level	n500	n1000	n2500	n5000	n10000	Ward	Const
General standard of living increased because of government policies							
0.0–2.9	*	*	*	*	*	55.6	*
3.0–5.9	58.6	57.9	61.9	55.8	55.6	62.2	60.2
6.0–8.9	51.7	48.9	49.4	58.2	57.2	50.3	54.8
9.0–11.9	49.3	52.4	41.1	40.4	42.7	42.4	47.3
12.0–14.9	43.2	50.0	40.2	37.7	38.5	40.0	45.6
15.0<	33.8	32.2	34.2	35.6	37.5	39.2	30.0
General standard of living increased for other reasons							
0.0–2.9	*	*	*	*	*	*	*
3.0–5.9	28.2	29.9	36.5	35.4	29.6	33.3	35.4
6.0–8.9	30.3	30.0	25.0	25.0	31.8	27.1	24.8
9.0–11.9	20.8	12.9	22.4	23.2	17.9	19.4	33.3
12.0–14.9	18.8	29.2	22.2	18.5	28.6	23.8	12.8
15.0<	16.7	1.58	16.1	18.8	16.2	1.82	13.9
General standard of living stayed the same because of government policies							
0.0–2.9	*	*	*	*	*	*	*
3.0–5.9	38.7	41.2	46.4	47.5	47.7	45.1	41.3
6.0–8.9	33.3	30.8	31.4	33.6	35.3	34.1	34.0
9.0–11.9	20.8	22.5	18.5	15.3	14.6	12.8	24.8
12.0–14.9	9.1	11.2	13.3	17.1	7.7	11.4	8.6
15.0<	10.5	10.8	7.4	11.4	9.3	11.2	9.8
General standard of living stayed the same for other reasons							
0.0–2.9	*	*	*	*	*	*	*
3.0–5.9	29.3	29.5	31.3	32.7	30.0	29.2	37.5
6.0–8.9	21.7	24.6	22.8	26.2	25.6	24.0	23.8
9.0–11.9	22.0	17.0	22.0	12.7	15.4	21.9	17.9
12.0–14.9	14.3	14.5	4.2	15.2	16.0	11.8	12.8
15.0<	11.1	11.1	14.0	8.3	10.9	11.7	10.8
General standard of living fallen because of government policies							
0.0–2.9	*	*	*	*	*	*	*
3.0–5.9	9.0	12.2	13.0	13.7	12.8	12.2	17.8
6.0–8.9	8.0	6.3	5.6	6.7	7.6	5.6	6.0
9.0–11.9	3.5	4.7	4.3	3.2	2.4	2.4	3.1
12.0–14.9	2.3	0.0	2.8	1.8	3.0	2.8	2.7
15.0<	1.0	1.5	1.7	2.5	2.6	3.5	2.6

*less than 20 respondents in the cell.

Key to local areas: n500—nearest 500 neighbors; n1000—nearest 1000 neighbors; n2500—nearest 2500 neighbors; n5000—nearest 5000 neighbors; n10000—nearest 10000 neighbors; ward—electoral ward; const—Parliamentary constituency.

TABLE 7. Logistic Regressions of Voting Conservative by Evaluations of Changes in the General Standard of Living, Attribution of Reasons for Changes and Local Unemployment Rate

		Scale of Analysis						
		n500	n1000	n2500	n5000	n10000	Ward	Const
Constant	–1.51	–1.14	–1.12	–1.03	–1.01	–0.97	–1.07	–0.79
1992 vote (comparator: did not vote Conservative)								
Voted Conservative 1992	3.18	3.11	3.11	3.10	3.09	3.10	3.11	3.10
Change in general standard of living and reason (comparator: increased because of government policy)								
Increased:other	–0.73	–0.75	–0.74	–0.73	–0.72	–0.72	–0.72	–0.75
Same:government	–0.64	–0.63	–0.62	–0.63	–0.64	–0.64	–0.64	–0.65
Same:other	–1.01	–0.98	–0.97	–0.98	–1.00	–0.98	–0.98	–1.00
Fallen:government	–2.20	–2.21	–2.20	–2.20	–2.19	–2.19	–2.19	–2.19
Fallen:other	–1.52	–1.53	–1.54	–1.53	–1.54	–1.53	–1.50	–1.51
Unemployment rate		–0.04	–0.04	–0.05	–0.05	–0.06	–0.05	–0.08
–2 log likelihood	1651	1597	1597	1594	1596	1596	1638	1630
Improvement		54	54	57	55	55	13	21

Underlined coefficients are not significant at the 0.05 level

Key to local areas: n500—nearest 500 neighbors; n1000—nearest 1000 neighbors; n2500—nearest 2500 neighbors; n5000—nearest 5000 neighbors; n10000—nearest 10000 neighbors; ward—electoral ward; const—Parliamentary constituency.

at one of the extremes according to local unemployment (the highest), was about half that in the areas of lowest unemployment—a difference that held at all spatial scales. Similar relative differences also occurred among those who thought that the general living standard had decreased a lot—though at much lower absolute levels. At the n1000 scale, the probability of such a respondent (and who also did not vote Conservative in 1992) voting Conservative in 1997 was 0.06 with a local unemployment rate of 1 percent and 0.03 where it was 20 percent.

ACCOUNTING FOR THE LOCAL CONTEXTUAL EFFECTS: LOCAL SOCIOMETRIC EVALUATIONS

We have provided strong circumstantial evidence regarding the operation of local contextual effects in the economic voting calculus employed by the electorate in England and Wales at the 1997 general election there. Those who were positive about changes in the general standard of living over the

five-year lifetime of the previous government, and who credited government performance with that situation, were most likely to vote for the governing party's return to office—but they were more likely to do that in local areas with low unemployment than they were where it was higher. The implication is that their propensity to reward the government for delivering general economic prosperity was tempered by evidence that such prosperity was not being experienced in their local area.

We can go further than that inference, however, because further questions used in the 1997 BES enable us to tap voters' evaluations of their local economic situation. Two questions similar to those relating to the national situation were asked.[6]

Local area change
Compared with other parts of Britain since the last general election in April 1992, would you say that (this part of Britain/Scotland/Wales) has been getting more prosperous than average, stayed about average, or been getting less prosperous than average?

(The show card used to structure responses divided the 'more prosperous' and 'less prosperous' categories into 'a lot more' and 'a little more'.)

Why
Do you think this is the result of government policies or for some other reason?

Combining the responses to these two questions gives voting outcomes very similar to those in Table 2 for the national situation. Those who thought their area had become relatively more prosperous, and credited that to government policies, were most likely to vote for the government party (43.2 percent), whereas those who though their area had become relatively less prosperous, and blamed that on government policies, were least likely (9.6 percent) to vote for the incumbent party.[7]

So, does this second pattern of economic voting (which we term regional sociometric voting) provide an account for the contextual effects set out in the tables discussed above? Does it remove the impact of local unemployment rate on the probability of a Conservative vote? To answer these we have re-run the logistic regressions reported in Table 7, adding a further set of independent variables relating to evaluations of changes in area prosperity.

The first regression in the left-hand column of Table 8 excludes the local unemployment variables. The coefficients for the first two blocks show the same, highly significant, relationships for 1992 vote and evaluations of changes in the general standard of living as in Table 7. The new set of variables includes two that are statistically significant, and adds substantially to the model's performance.[8] The significant coefficients are for 'local area economic situation was better because of other reasons' and 'local area situation was worse because

TABLE 8. Logistic Regressions of Voting Conservative by Evaluations of Changes in the General Standard of Living and Local Area Prosperity, Attribution of Reasons for Changes and Local Unemployment Rate

		Scale of Analysis						
		n500	n1000	n2500	n5000	n10000	Ward	Const
Constant	–1.51	–1.10	–1.07	–0.98	–0.96	–0.94	–1.08	–0.69
1992 vote (comparator: did not vote Conservative)								
Voted Conservative 1992	3.18	3.10	3.10	3.08	3.08	3.09	3.12	3.11
Change in general standard of living and reason (comparator: increased because of government policy)								
Increased:other	–0.57	–0.58	–0.57	–0.56	–0.56	–0.55	–0.55	–0.57
Same:government	–0.59	–0.58	–0.57	–0.59	–0.60	–0.60	–0.58	–0.60
Same:other	–1.01	–1.01	–1.00	–1.02	–1.01	–1.02	–0.99	–1.01
Fallen:government	–2.16	–2.20	–2.19	–2.19	–2.19	–2.18	–2.16	–2.18
Fallen:other	–1.44	–1.39	–1.39	–1.39	–1.39	–1.39	–1.41	–1.41
Change in area prosperity and reason (comparator: better because of government policy)								
Better:other	–0.48	–0.54	–0.54	–0.55	–0.55	–0.54	–0.52	–0.60
Same:government	–0.10	–0.13	–0.11	–0.10	–0.08	–0.10	–0.09	–0.14
Same:other	–0.14	–0.19	–0.19	–0.18	–0.18	–0.18	–0.18	–0.24
Worse:government	–0.65	–0.63	–0.62	–0.60	–0.60	–0.60	–0.62	–0.61
Worse:other	–0.36	–0.41	–0.41	–0.40	–0.40	–0.39	–0.38	–0.42
Unemployment rate		–0.04	–0.04	–0.05	–0.06	–0.06	–0.04	–0.09
–2 log likelihood	1489	1443	1442	1439	1441	1443	1477	1466
Improvement		46	47	50	48	46	12	23

Underlined coefficients are not significant at the 0.05 level.

Key to local areas: n500—nearest 500 neighbors; n1000—nearest 1000 neighbors; n2500—nearest 2500 neighbors; n5000—nearest 5000 neighbors; n10000—nearest 10000 neighbors; ward electoral ward; const—Parliamentary constituency.

of government policy'—in each case relative to the comparator, those who thought the 'local situation was better because of government policy.' The first of these shows that among those who thought that the local situation was better, those who attributed this to other reasons were only about 0.6 as likely to vote Conservative as those who attributed the improvement to government policy.[9] The 'feel-good factor' had the most impact on support for the government among those who ascribed their 'feeling-good' to the government's actions. The second significant relationship shows that those who thought that their local situation had become worse because of government policies were only about half as likely to vote Conservative as those who thought government

policies had produced an improvement in the local situation (holding constant national sociometric evaluations).[10]

These results suggest the operation of a regional as well as a national sociometric evaluation process in the voters' 1997 calculi. Their joint operation, however, did not eliminate the significant relationships with local unemployment rates, whose strength was as great as in the regressions reported in Table 7. Introducing the local evaluations did not remove the general finding identified throughout the analyses reported here that the higher the local unemployment rate the smaller the probability of a vote for the incumbent government. Whatever their national and local sociometric evaluations, people living in areas of high unemployment were less likely to vote for the Conservatives in 1997 than were those living in areas of low unemployment.

Interpolation of voting probabilities using the regression coefficients produces similar differences to those discussed above. For example, at the n1000 scale, the probability of voting Conservative in 1997 among those who (a) did not vote Conservative in 1992, (b) thought the government responsible for an increase in the general standard of living, and (c) thought that their local economy was more prosperous because of government policy was 0.25 if local unemployment was 1 percent and 0.13 if it was 20 percent. Among those with similar responses except that they did vote Conservative in 1992, the respective probabilities were 0.88 and 0.77. And among those who (a) did not vote Conservative in 1992, (b) thought that the national standard of living had decreased for other reasons, and (c) thought that their local was less prosperous for other reasons, the probabilities were 0.02 and 0.01. Variations in the local level of unemployment had most impact on non-Conservative voters in 1992 who thought that government policies had been successful since then, both nationally and locally—i.e. where the cross-pressures were greatest—and least on those who did not vote Conservative in 1992 and thought the economic situations had deteriorated since the election.

CONCLUSIONS

Books and Prysby (1999, p. 11) concluded from their study of one U.S. election that 'economic context does affect retrospective economic evaluations.' Our study of the 1997 general election in England and Wales not only comes to the same conclusion, but shows very clearly that local economic context was very influential on how people voted in two ways—as reflected by their evaluations of regional prosperity and by the unemployment level in their local area. The government was most likely to be rewarded by people living in areas of low unemployment who thought that government policies had delivered both national and local prosperity. Those who thought that the policies had

delivered the former but not the latter were much less likely to vote for the government's return to office, especially in areas of high unemployment.

Books and Prysby began their paper with the assertion that 'Individuals are influenced by their context.' There is considerable dispute among students of elections in the UK regarding the veracity of that assertion there (as exemplified by the debate between McAllister and Studlar, 1992, Johnston and Pattie, 1998, and Dunleavy's, 1979, general critique). This article, based on data sets never previously available, comes down firmly on the side of those who believe in the assertion, and moves it toward the status of a verified hypothesis. It has provided strong evidence of spatial variations in economic voting in England and Wales at the 1997 general election: the higher the level of unemployment in an area, the lower the support for the incumbent government, holding constant the voters' evaluations of recent changes in the general standard of living, whether they attributed those changes to government policies, and also their evaluation of the state of their local economy. Places matter when voters are deciding whether to support the incumbent government. They take cues from their local context and act accordingly.

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NOTES

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2. The respondents in Scotland have been excluded from this study because of difficulties creating the contextual data sets discussed below.
3. We explored the use of a further explanatory variable—whether the respondent was currently unemployed. The number was small, however (some 6 percent of the sample), and the variable was not significant in any of the equations. We also explored whether there were candidate effects—whether incumbents performed better than non-incumbents, whether 'Eurosceptics' performed better than 'Europhiles,' whether candidates against whom there had been allegations of 'sleaze' during the previous Parliament performed less well than those against whom there were no allegations, and so on. Like others who have sought such effects (e.g., Farrell et al., 1998), we found no evidence of such effects.
4. In the terms of the classic 'Michigan model' (e.g., Miller and Shanks, 1996), therefore, we

are incorporating all of the non-proximate causes of the voting decision into the single variable relating to vote in 1992 and focusing our investigations on the proximate causes.

5. The exponent of the coefficient of 3.18 is 24.05.
6. There are some slight potential difficulties with using these questions since the term 'this part of Britain' is imprecise. It could have been interpreted by respondents as meaning their home region, town, or even neighborhood.
7. A copy of the full table can be supplied on request to the first-named author.
8. The –2 log likelihood figure is 1489, compared to 1651 for that reported in the left-hand column of Table 7.
9. The coefficients for that variable range from –0.48 to –0.60; the exponent of –0.54 (the median value) is 0.58
10. The median value for those coefficients across all spatial scales is –0.62, which has an exponent of 0.54

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