Geographical scale, the 'feel-good factor' and voting at the 1997 general election in England and Wales

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Many analysts associate voting patterns in Great Britain with electors' evaluations of the state of the economy, whereby those who think it has improved recently are likely to vote for the government's return to power, whereas those who think it has worsened are more likely to vote for an opposition party. Most of these studies consider the national economy only, but data derived from the 1997 British Election Study cross-sectional survey show strong relationships between votes and evaluations of recent changes in the electors' (self-defined) home areas. This paper relates those evaluations, and the resultant voting patterns, to the 'objective circumstances' in the respondents' home areas, using unemployment rates as an indicator of local economic well-being. Using specially devised data for 'bespoke neighbourhoods' around each respondent's home, we show that the probability of a vote against the government was a function of both 'objective conditions' and 'subjective evaluations', and that there were significant scale effects in this: people apparently reacted to very local variations when making their voting decisions.

key words economic voting scale neighbourhood effect England and Wales

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There was a major shift in the nature of voters' choices at British general elections from the 1970s onwards. Before then, there was a deep class cleavage in society: the majority of those on one side of it (the 'working class') regularly voted for the Labour party whereas those on the other side (the 'middle class') supported the Conservatives. Interelection changes in party support were largely the result of shifts by the 'floating voters' (who had weaker commitments to a particular party), and of alterations to the country's class structure. From approximately 1970 on, however, the class cleavage became a less-marked feature of the socio-electoral landscape (Sanders (1997) claims that it has now totally disappeared) and a greater proportion of the electorate became, in effect, floating voters: the 1970s, according to Särlvik and Crewe (1983), were a decade of dealignment. Instead of regularly voting in the same way, an increasing number of voters – especially those in younger generations not socialized into identification with the party of 'their class' (on which see Franklin 1985) – made their decisions at election time on the basis of economic evaluations. They decided how to vote on the basis of either (or both) their perception of the condition of the national economy and their

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own (and their household's) financial situations; the 1980s and 1990s were increasingly decades of 'pocket-book voting'.

The main models of 'pocket-book voting' are based on a series of economic evaluations, both sociotropic and egocentric, retrospective and prospective. All involve a 'reward-punish' mechanism.[1] Voting decisions made on retrospective sociotropic grounds are based on evaluations of recent changes in the state of the national economy: people who think it has performed well are likely to vote to return the government that has overseen that period of prosperity; those who think it has performed badly are more likely to punish the incumbent government by voting for an opposition party, especially if they believe the latter is 'fit to govern'. Similarly, those who are optimistic about the future are more likely to vote for the incumbent government than for an opposition party, whereas those who are pessimistic are more likely to vote for a change in government. Voting decisions made on egocentric grounds assess government performance and opposition potential in the same way, but based on evaluations of the electors' own financial positions rather than the national situation.

Such models have been tested on a variety of datasets at both aggregate and individual scales, and largely validate what some have termed voting according to the 'feel-good factor': the satisfied and the optimistic vote for the government, whereas the dissatisfied and the pessimistic vote against it. As a result, governments try to manipulate the key economic indicators – rate of inflation, interest rates, unemployment rates – to induce an increase in the 'feel-good factor' in the months preceding an election (or, in the British case, may call an election when the indicators are favourable, and the opinion polls indicate a probable victory). British studies of the 'feel-good factor' at an aggregate (national) scale include several by Sanders (1996; 1999); for studies at the individual scale see Price and Sanders (1995).

However, these models lack an appreciation of geographical variability and scale in the country's economic performance, as they concentrate on the individual and the nation only (though see Marsh *et al* 1991 for macroscale differences).[2] And yet it is frequently the case in Great Britain that, whereas some parts of the country are relatively prosperous, others are deep in recession: this was certainly the case in the 1930s and 1980s (see Pattie and Johnston 1990) and, some suggest, in the 1990s also.[3] Voters who evaluate the situation sociotropically may do so not on the basis of their assessments of the national condition, but rather on how they judge the situation in their own part of the country. This implies a 'regional sociotropic' evaluation, as identified in the early 1990s (Johnston and Pattie 1995; Pattie and Johnston 1995).[4]

A notable feature of voting in British elections in the 1980s, following the onset of dealignment, was the increased spatial polarization in support for the main political parties (as set out in Johnston *et al* 1988; Johnston *et al* 1993); this diminished somewhat in the 1990s, but regional variations remain a significant feature of the British electoral landscape (Johnston and Pattie 1998). Part of the reason for these spatial variations may be geographical differences in the economic situation and how voters assess them: the 'feel-good factor' may vary spatially in its intensity (even, on some occasions, in its direction), with spatial variations in party choice at general elections as a consequence. Are these variations in party choice linked to the nature of the variations in regional economic performance? And if so, at what spatial scale (the region, the constituency, the local neighbourhood, or what)? These questions are addressed here, using data for the 1997 general election in England and Wales.[5]

Neighbourhood effects and spatial variations in economic voting

In exploring spatial variations in economic evaluations and their links to voting choices at the 1997 general election we are looking at a variant of the widely believed, but rarely empirically established, geographical process known as the *neighbourhood effect*. Cox (1969) and Reynolds (1969), for example, argued that people are influenced in their partisan choices by the nature of politically relevant information circulating in their neighbourhood. The greater the weight of that information in favour of one party, the greater the likelihood that residents who, because of their individual characteristics, might otherwise be expected to support one of its opponents will vote for it too. The result is that support for a party is spatially more polarized than the class or other relevant cleavage(s) within the electorate suggests: parties perform even better than expected where they have strong local foundations, but not as well as expected where their electoral foundations are relatively weak.

Many studies have found voting patterns that are consistent with this hypothesis, but they are mainly based on aggregate data and so the underlying process is not revealed. According to Miller (1977; 1978), they result from the operation of a process that can be summarized as 'conversion by conversation', or 'those who talk together vote together' (Miller 1977, 65). Little evidence has been available until recently to suggest that this process does operate, and although recent studies have shown that those who talk together tend to vote together (Curtice 1995; Pattie and Johnston 1999), they do not also demonstrate that those who talk together are spatially clustered in local neighbourhoods. The evidence for a neighbourhood effect remains very largely circumstantial. Similar patterns can be produced by a number of processes. For example, Cox (1969) identified two others: self-selection of where to live by people of different political persuasions; and differential rates of local campaigning and mobilization by the political parties (on which there is a great deal of evidence in the UK at the constituency scale: Denver and Hands 1997; Pattie *et al* 1995).

A further possibility, with particular reference to spatial variations in economic voting, is voters' observations of local conditions, perhaps assisted by information circulated through local media as well as conversation networks. Voters will be aware of the condition of their local economy simply by observation, and their local media (newspapers, radio and TV) will report important local events, such as factory closures or the creation of new jobs. They may use this information independently of any other available to them, or they may interpret it in the light of other pronouncements: claims made of national economic health (either through published statistics or by politicians) may be compared with information about the local situation, either by the individual voter or by those seeking to influence her/him, such as local politicians seeking electoral support. Thus a pattern of voting similar to that produced by the 'classic' neighbourhood effect may result through voter appreciation of the local situation, and its relationship to national patterns, achieved through a variety of communication channels. (This argument for an extended appreciation of the processes involved in producing neighbourhood effects is developed by Brooks and Prysby (1991), who identify four separate, though probably interacting processes: personal observation; informal interaction; organizationally based interaction; and cues delivered through the mass media.)

Part of the scepticism regarding the hypothesized neighbourhood effect among some analysts reflects concerns over the processes involved, such as the spatial scale at which the effect has been tested with aggregate data, especially in the British context where voting data at general elections are not available at scales below that of the parliamentary constituency. As Dunleavy (1979) argued, it is difficult to link findings obtained from analyses of areas with 60 000 or more voters to models based on very local social processes, and although others have argued that findings at such large scales may be consistent with the neighbourhood effect (eg Johnston 1983), this contention still lacks empirical backing. Only one major study has been undertaken at a smaller spatial scale: that of the electoral ward. Using the 1987 British Election Study (BES) data, Harrop *et al* (1992) found clear evidence consistent with the neighbourhood effect at a scale more in line with that of the assumed local communities within which politically relevant conversations take place. Nevertheless, many wards are relatively large, especially in urban areas (see Rossiter *et al* 1999, 172: Birmingham's wards had an average electorate of 18 900 in 1991), and using them as the data unit may well not be appropriate for studies of neighbourhood effects. To take account of this, we have developed a method of defining 'bespoke neighbourhoods' at a variety of small spatial scales for each respondent in any survey for which their postcode is known. These are used here in a search for neighbourhood variations in the relationship between economic evaluations and voting at the 1997 general election.

As with virtually all other studies of neighbourhood and similar contextual effects in voting patterns, the analyses here do not explore the processes involved – the flows of information that influence the voting decision. (One of the few exceptions is the detailed study of one town by Huckfeldt and Sprague 1995; Pattie and Johnston 1999; 2000, have used British data to study the role of informal conversations on voting decisions, but the absence of locational information means that even these cannot provide direct evidence of neighbourhood effects.) Thus the evidence discussed here regarding local contextual effects is circumstantial only. But it is strong, suggesting that the concept of neighbourhood effects should certainly not be dismissed as Dunleavy has suggested,

Table I Evaluations of regional economic performance

	N	%
A lot more prosperous	130	4.8
A little more prosperous	571	20.9
Stayed about average	1126	41.2
A little less prosperous	524	19.2
A lot less prosperous	272	10.0
Don't know	106	4.0

Table II Evaluations of regional economic performance by vote at 1997 general election

	Con	*Lab*	*LibDem*	*DNV*
A lot more prosperous	39.2	23.8	10.8	20.8
A little more prosperous	28.0	30.6	14.7	19.9
Stayed about average	26.3	33.8	14.6	22.1
A little less prosperous	16.0	46.3	13.0	19.0
A lot less prosperous	11.4	52.6	11.4	19.5
Don't know	11.3	34.0	10.4	40.6

Key to columns: Con – Conservative; Lab – Labour; LibDem – Liberal Democrat; DNV – did not vote

Note: The row percentages do not sum to 100 because we have omitted voting for other parties, notably the Referendum Party and Plaid Cymru. As with all data used in this paper, the figures refer to England and Wales only

and provides a powerful case for further study focusing on the processes.

Evaluating the local economic situation

The BES involves a survey of several thousand voters in the weeks immediately after each general election, proving a wealth of data on their socio-economic characteristics, their political attitudes and their voting behaviour. The 1997 survey included the following regional sociotropic question:

> 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')[6]

The responses for England and Wales are in Table I. Approximately one-quarter of all those questioned thought that their part of the country had performed relatively well during the 1992–97 inter-election period, whereas a further 30 per cent thought it had performed relatively badly: just over 40 per cent identified no difference between the national situation and their own region's.

There was a clear relationship between these regional economic evaluations and voting at the 1997 general election (Table II). The more satisfied people were with the local situation, relative to the national, the more likely they were to vote for the incumbent government (the Conservative party) and the less likely they were to vote for the main opposition party (Labour, who won the election by a margin of some 12 percentage points of the votes cast, or 9 percentage points of the total electorate, 29 per cent of whom abstained).[7] Conservative support was 3.5 times greater (as a percentage of the electorate) among those who thought their area had become a lot more prosperous than among those who thought it had become a lot less so: Labour support, on the other had, was 2.2 times greater among those who thought their home area had become a lot less prosperous than among those who thought it had become a lot more prosperous. These ratios are exactly in line with expectations from the 'feel-good factor' hypothesis: the locally satisfied were much more likely to vote for the party in power than were the locally dissatisfied, who in turn were much more likely to support the main opposition party. There was no such pattern to either the support for the third party (the Liberal Democrats) or the rate of abstentions, except that non-voting was very much higher among the small number who answered 'don't know' to the regional evaluation question (with the implication that these individuals were alienated from the political system). In an election that saw the Conservatives get their lowest share of the votes cast for more than a century, the party that had been in government for the preceding 18 years got a plurality of the votes cast among only one group only of those identified in Table II: those who thought their local area had become a lot more prosperous than had been the case in Britain generally.

Table III shows regional variations in those economic evaluations. With the partial exception of the North (where there had been considerable foreign direct investment in the years preceding the election – although some of it was later withdrawn: see Johnston and Pattie 1997a), there is a clear north/south divide, with respondents from

Table III Regional variations in evaluations of regional economic performance

Region	*LoM*	*LiM*	*AA*	*LiL*	*LoL*	*DK*
North	5.1	24.9	33.0	22.8	10.7	3.6
Northwest	1.9	15.9	34.9	27.9	16.7	2.7
Yorkshire/Humberside	1.1	16.5	36.4	22.2	19.5	4.2
West Midlands	1.7	18.4	43.3	23.2	10.2	2.7
East Midlands	4.4	13.7	50.2	15.9	11.5	4.4
East Anglia	8.4	24.6	38.3	16.2	5.4	6.6
Southeast	6.5	26.1	47.3	13.3	3.6	3.2
Southwest	4.4	16.5	46.4	19.0	11.7	2.0
Greater London	8.6	27.4	37.6	13.7	5.7	7.0
Wales	3.8	18.1	33.5	28.0	13.2	3.3

Key to columns: LoM – lot more; LiM – little more; AA – about average; LiL – little less; LoL – lot less; DK – don't know

the 'northern' regions plus Wales and, to a lesser extent, the Midlands more likely to think that their area has become less prosperous than was the case nationally. 'Southerners', on the other hand, were more likely to think that their regions had performed well relative to the national situation: there was regional variation in the 'feel-good factor' (as had also been the case in the ten years preceding the 1992 election: Johnston and Pattie 1997b).

Local economic evaluations, 'objective circumstances' and voting

The regions shown in Table III were extremely heterogeneous in their economic performance over the five years between the 1992 and 1997 general elections. The only 'objective' indicator which we have for this variation is to some extent a surrogate: the level of unemployment at the 1991 census. (Although absolute levels of unemployment varied over the period from 1991 to 1997, the relative levels across the country did not, hence this measure is a reasonable surrogate of spatial variations of 'objective' economic conditions.)[8] This 'objective indicator' is a measure of the situation at one date only, of course, whereas the 'subjective evaluations' obtained from the survey relate to change. Thus the two datasets are not directly comparable; rather the 'objective indicators' provide a measure of the local context within which those subjective evaluations were made.

The spatial variation in unemployment rates at both constituency and ward levels within each region is shown by the summary statistics in Table IV (minima and maxima, means and standard deviations). The intraregion variability is considerable at each scale: in general it is greater at the ward than at the constituency scale (in some cases, such as East Anglia, the South-East and Wales, the standard deviation at ward scale is more than twice that at the constituency scale). Given these variations, a finer spatial scale of analysis is needed than simply looking at regional variations: objective conditions in many of the respondents' home areas are only weakly indicated by the regional situation.

Table V shows the variations in unemployment rates for the BES respondents at the two spatial scales for which census data are normally analysed in electoral studies – the constituency and the ward – there were 569 constituencies in England and

Table IV Variations in unemployment rates within regions at constituency and ward scales (summary statistics), 1991

Region	*Constituency scale*				*Ward scale*			
	Min	*Max*	*Mean*	*SD*	*Min*	*Max*	*Mean*	*SD*
North	9.1	25.0	14.1	2.9	2.6	25.9	11.7	5.9
North-West	6.0	28.3	13.3	5.7	3.4	32.1	13.9	7.9
Yorkshire/Humberside	4.7	24.1	11.2	4.6	2.4	20.3	10.8	4.5
West Midlands	5.8	26.1	11.6	4.6	4.0	34.9	10.9	5.7
East Midlands	5.2	14.8	9.5	3.0	2.9	29.2	10.6	4.7
East Anglia	4.8	7.9	6.7	1.0	2.5	14.9	7.4	4.0
South-West	5.7	13.4	8.1	2.4	3.2	23.0	8.3	3.1
South-East	4.8	12.5	7.3	1.9	2.5	19.4	7.3	3.9
Greater London	5.7	24.4	12.4	5.9	3.6	32.9	12.5	6.9
Wales	9.3	15.3	11.5	1.9	6.1	22.3	13.3	4.2

Key to columns: Min – minimum; Max – maximum; SD – standard deviation

Table V Unemployment rates in 1991 (percentage of workforce) in constituencies and wards for respondents to 1997 BES

	Constituency	*Ward*
0.00–2.99	0	2.1
3.00–5.99	14.6	22.2
6.00–8.99	34.1	27.2
9.00–11.99	21.6	18.6
12.00–14.99	15.0	9.4
15.00–	14.6	20.5

Wales at the time of the 1997 general election, and the BES clustered sample included respondents from 177 of them. (The average constituency in England had some 70 000 electors at the time of the 1997 general election; that in Wales had approximately 55 000. Ward populations vary substantially, averaging just over 3000 in the non-metropolitan and 10 000 in the metropolitan counties.) About half of the respondents lived in areas with less than 9 per cent of their workforce recorded as unemployed in the 1991 census, at both scales, but there was greater variation in the unemployment rates for smaller areas than in larger ones – more wards than constituencies had unemployment rates in excess of 15.0 per cent, for example.

Is there a relationship between respondents' evaluations and the recorded unemployment rates – between 'subjective impressions' and 'objective indicators' of the state of the local economy? Table VI shows the unemployment rates in the constituency and ward for each respondent, according to their response to the question on the local economic situation.[9] At each scale, those who thought their part of the country had become more prosperous lived in an area with relatively low local unemployment rates, whereas those who thought their area had become less prosperous were more likely to live in an area with relatively high rates. But the relationship was not complete; some who thought their area had become a lot more prosperous, for example, lived in constituencies/wards with high unemployment rates, whereas some who thought it had become a lot less prosperous came from areas with low rates.

And is the pattern of voting related to the unemployment rates? Table VII shows the percentages for the respondents in each category. In general, the higher the unemployment rate in an area, the lower the Conservative vote and the higher both the Labour vote and the abstention rate. Holding constant the higher abstention rates, the Labour:Conservative and Labour/Liberal Democrat:Conservative vote ratios show very clearly that the higher the local level of unemployment the greater the propensity to vote for an opposition party rather than the incumbent government. But is this greater propensity to vote against the government in areas of high unemployment mediated by electors' evaluations of their local circumstances?

Table VI Evaluations of local economy and unemployment rate (percentage of respondents in each row)

	Unemployment rate (%)					
	0.0–2.9	*3.0–5.9*	*6.0–8.9*	*9.0–11.9*	*12.0–14.9*	*15.0–*
Constituency scale						
Lot more prosperous	0	24.6	36.2	18.5	9.2	11.5
Little more prosperous	0	22.1	33.5	17.2	14.4	13.0
About average	0	15.5	37.7	21.5	13.8	11.5
Little less prosperous	0	8.4	31.3	26.0	18.1	16.2
Lot less prosperous	0	3.3	26.8	27.2	15.4	27.2
Ward scale						
Lot more prosperous	8.5	23.8	32.3	14.6	4.6	16.2
Little more prosperous	2.5	28.4	27.1	14.0	8.6	19.4
About average	1.4	23.7	28.6	20.0	8.9	17.3
Little less prosperous	1.7	17.4	36.7	20.0	11.3	22.9
Lot less prosperous	1.1	10.3	24.6	23.5	12.5	27.9

Table VII Vote at 1997 general election by 1991 unemployment rate (percentage of column totals)

	Unemployment rate (%)					
	0.0–2.9	*3.0–5.9*	*6.0–8.9*	*9.0–11.9*	*12.0–14.9*	*15.0–*
Constituency scale						
Conservative	*	37.5	27.3	22.0	13.2	11.8
Labour	*	18.8	34.0	40.2	44.6	49.5
Liberal Democrat	*	25.3	13.4	11.7	9.5	9.3
Did not vote	*	14.3	20.4	21.0	28.5	24.3
L:C ratio	*	0.50	1.25	1.83	3.38	4.19
(L+LD):C ratio	*	1.18	1.74	2.36	4.10	4.98
N	0	400	931	590	410	400
Ward scale						
Conservative	33.9	36.0	27.5	16.3	15.9	12.5
Labour	21.4	25.6	33.6	42.8	44.2	46.8
Liberal Democrat	17.9	17.5	15.4	12.4	8.1	10.0
Did not vote	21.4	16.4	19.4	22.6	25.2	26.8
L:C ratio	0.63	0.71	1.22	2.63	2.78	3.74
(L+LD):C ratio	1.16	1.20	1.78	3.39	3.29	4.54
N	56	605	742	509	258	560

Key to rows: L:C ratio – ratio of Labour to Conservative percentage of votes cast; (L+LD):C ratio – ratio of Labour plus Liberal Democrat to Conservative percentage of votes cast

The interaction of 'subjective evaluations' and 'objective circumstances'

Tables VI and VII suggest that the BES respondents' evaluations of their regions' economic situations reflected the 'objective conditions' there, as indexed by unemployment rates, and that their voting decisions followed, as the 'feel-good factor' hypothesis suggests: people who thought their part of the country was doing badly voted Labour as a consequence of living in areas of relatively high unemployment. But were the two related in a slightly more complex way? Were people living in areas of high unemployment more likely to vote Labour, whatever their evaluation of the state of the local economy?

Tables VIII and IX provide positive answers to this question, with fewer economic evaluation categories to avoid problems associated with small sample size: the two adjacent 'a lot more' and 'a little more' categories have been combined, to give three ('more prosperous', 'staying the same' and 'less prosperous'). In these, if the hypotheses are confirmed, the Conservative vote should reduce down the columns within each matrix, with the Labour vote rising in counterpoint. In addition, the Conservative vote should be higher in the first of the three matrices (among those who thought that their region had become more prosperous) than in the second and, especially, the third (those who thought their region had become less prosperous).

This was indeed the case at the constituency scale (Table VIII). Among those who lived in constituencies with an unemployment rate exceeding 15 per cent, 20.2 per cent of those who thought that their region had become more prosperous voted Conservative, compared with 14.0 per cent of those who thought their region had performed about the same as the national economy and only 5.0 per cent of those who thought it was less prosperous. Within each of the matrices, the trend is in line with the expectations. The percentage supporting the Conservatives fell by almost exactly one-half among those who felt their region was more prosperous, for example, between unemployment rates of 3–6 and 15+ per cent; by 67 per cent between those same categories among those who thought things had stayed the same; and by almost exactly

the same figure among those whose region was perceived to be less prosperous. Paralleling this, the Labour vote approximately doubled across the first four unemployment categories in the second and third matrices and almost tripled in the first. The ratio of Labour to Conservative votes increased accordingly within each matrix, becoming higher the higher the local level of unemployment. Interestingly, too, the rate of abstention increased the higher the unemployment rate among those who thought that their region's prosperity had changed relative to the national average: the worse the 'objective situation', the less inclined people were to vote for any party. In addition, among those who thought that their region had become more prosperous, Labour's vote not only increased with the local unemployment rate but actually exceeded the Conservatives' where unemployment was 9 per cent or greater. Even among those who thought that their part of the country had become more prosperous relative to the national situation, if they lived in a high unemployment area they were more likely to vote for the main opposition party than for the incumbent government.

Exactly the same patterns appear in Table IX, for the ward rather than the constituency scale. There is, of course, a high correlation between constituency and ward unemployment rates, but a substantial proportion of the respondents lived in wards with either higher or lower unemployment rates than was the case for their constituencies (Table X: 26.9 per cent of respondents lie below the table's main diagonal, with 41.6 on the diagonal – their ward and constituency rates were the same – and 31.3 above). If we look at only those wards in constituencies with unemployment rates below 9.0 per cent, we find the same relationships as before (Table XI), providing clear evidence of the importance of local scale. In constituencies with less than 9 per cent of registered workforce unemployed, for example, 45.5 per cent of the respondents in wards with less than 3 per cent unemployed and who thought their area had become more prosperous voted Conservative, compared to 37.3 per cent in those where the rate was between 3 and 6 per cent, 36.0 where it was between 6 and 9 per cent, and 27.3 per cent where it was over 9 per cent. Similar declines were recorded among those who thought that their area had either stayed the same or had become less prosperous: the Labour:Conservative ratio (and also the Labour/Liberal Democrat: Conservative ratio) increased the higher the ward level of unemployment.[10] Holding constant both subjective (evaluations of the performance of their regional economy) and objective (constituency unemployment rate) indicators, the higher the ward unemployment rate the lower the likelihood of a vote to reward the incumbent government.

Table VIII Vote by 1991 unemployment rates and evaluation of regional economy: constituency scale

Unemployment rate	*Con*	*Lab*	*L:C*	*DNV*	*N*
More prosperous					
0.00–2.99	*	*	*	*	0
3.00–5.99	40.5	13.3	0.33	15.2	158
6.00–8.99	32.4	31.5	0.97	17.6	238
9.00–11.99	30.3	32.8	1.08	19.7	122
12.0014.99	16.0	38.3	2.39	33.0	94
15.00 –	20.2	38.2	1.89	22.5	89
About average					
0.00–2.99	*	*	*	*	0
3.00–5.99	42.3	22.3	0.53	10.3	175
6.00–8.99	28.0	31.5	1.13	22.6	425
9.00–11.99	23.1	36.8	1.59	22.3	242
12.00–14.99	18.7	39.4	2.11	28.4	155
15.00–	14.0	45.0	3.21	28.7	129
Less prosperous					
0.00–2.99	*	*	*	*	0
3.00–5.99	15.1	28.3	1.87	15.1	53
6.00–8.99	23.6	41.4	1.75	16.0	237
9.00–11.99	16.7	47.6	2.85	20.0	210
12.00–14.99	5.8	57.7	9.95	20.4	137
15.00–	5.0	59.1	11.82	22.6	159

Key to columns: Con – Conservative; Lab – Labour; L:C – Labour:Conservative ratio; DNV – did not vote
Note: *N less than 20

Changing the scale: are there 'neighbourhood effects' at smaller scales?

The analyses reported above have looked at spatial variations in economic evaluations and voting behaviour at two spatial scales – the constituency and the electoral ward. But are these the best scales at which to test the hypotheses, or do people's evaluations of local economic circumstances, represented here in 'objective' terms by the reported unemployment rate, reflect smaller scale variations?

Unfortunately, unemployment data are available for only one other scale, the enumeration district, a

Table IX Vote by 1991 unemployment rates and evaluation of regional economy: ward scale

Unemployment rate	*Con*	*Lab*	*L:C*	*NV*	*N*
More prosperous					
0.00–2.99	48.0	16.0	0.33	24.0	25
3.00–5.99	36.3	22.8	0.63	15.5	193
6.00–8.99	32.5	29.9	0.92	17.8	197
9.00–11.99	26.3	27.3	1.04	24.2	99
12.00–14.99	23.6	30.9	1.31	30.9	55
15.00–	19.7	41.7	2.12	22.0	132
About average					
0.00–2.99	*	*	*	*	16
3.00–5.99	40.8	23.2	0.57	15.0	267
6.00–8.99	31.1	28.6	0.92	21.1	322
9.00–11.99	16.4	43.1	2.63	24.0	225
12.00–14.99	14.0	40.0	2.86	33.0	100
15.00–	16.9	43.6	2.58	26.7	195
Less prosperous					
0.00–2.99	*	*	*	*	12
3.00–5.99	28.6	36.1	1.26	14.3	119
6.00–8.99	17.4	46.4	2.67	16.9	207
9.00–11.99	11.2	49.7	4.44	19.5	169
12.00–14.99	14.0	53.8	3.84	15.1	93
15.00–	4.6	56.1	12.20	26.5	196

Key to columns: Con – Conservative; Lab – Labour; L:C – Labour: Conservative ratio; DNV – did not vote
Note: *N less than 20

small area used for administration of the census with an average population of just under 500. We were able to match the home addresses of the BES respondents to their enumeration district, without compromising the confidentiality guarantee that respondents were given, and so could appraise the validity of our hypothesis at that very much smaller scale. In addition, we were able to build 'bespoke neighbourhoods' for each of the respondents, defined as those enumeration districts closest to the respondents' homes which contained their nearest *n* neighbours, where *n*=500, 1000, 2500, 5000 and 10 000, a procedure which allowed us not only to evaluate spatial variations at a variety of scales but also to remove the problem of dealing with wards of considerably different sizes.[11]

Table XII gives the ratios of Labour to Conservative votes (as percentages of all respondents) by unemployment rate for respondents' enumeration districts and each of the five bespoke neighbourhoods. It shows that, although the relationships are not linear, at all scales (in general): a) the worse the evaluation the better Labour's performance relative to the Conservatives; and b) the higher the local unemployment rate, the better Labour's relative performance. On the first point, for example, at the n500 bespoke neighbourhood scale, the ratio of Labour to Conservative votes where the unemployment rate was less than 3.0 per cent was only 0.5 among those who thought their local area had become more prosperous, and 0.67 among those who thought it had stayed about the same, but 0.83 among those who thought it had become less prosperous. On the second, and at the same scale, among those who thought that their area had become more prosperous, there was a fourfold difference in the ratios for districts with unemployment rates of under 3.0 and over 15.0 per cent, a sixfold difference among those who thought their area had stayed about the same relative to the national situation, and a thirteenfold difference among those who thought it had become less prosperous. Both subjective and objective indicators of their local economic situation were clearly

Table X Relationship between constituency and ward 1991 unemployment rates (percentage of all respondents)

Unemployment rate: Ward scale (%)	*Constituency scale (%)*					
	0.0–2.9	*3.0–5.9*	*6.0–8.9*	*9.0–11.9*	*12.0–14.9*	*15.0–*
0.0–2.9	0	1.1	0.4	0.5	0	0
3.0–5.9	0	9.7	9.7	2.7	0	0
6.0–8.9	0	3.3	12.2	7.0	3.0	1.6
9.0–11.9	0	0.4	8.8	5.7	2.9	0.8
12.0–14.9	0	0	1.6	3.0	3.3	1.6
15.0–	0	0	1.3	2.7	5.8	10.7

Table XI Vote by 1991 unemployment rate and evaluation of local economy: wards in constituencies with unemployment rates of less than 9.0%

	Ward unemployment rate (%)					
	0.0–2.9	*3.0–5.9*	*6.0–8.9*	*9.0–11.9*	*12.0–14.9*	*15.0<*
More prosperous						
Conservative	45.5	37.3	36.0	27.3	*	*
Labour	18.2	20.3	25.6	30.9	*	*
Liberal Democrat	4.5	22.0	18.4	9.1	*	*
Did not vote	22.7	15.3	16.8	21.8	*	*
L:C ratio	0.40	0.54	0.71	1.13	*	*
(L+LD):C ratio	0.50	1.13	1.22	1.47	*	*
N	22	177	125	55	9	8
About average						
Conservative	*	41.3	33.5	19.0	22.7	*
Labour	*	22.1	26.5	41.3	18.2	*
Liberal Democrat	*	17.9	15.7	14.9	13.6	*
Did not vote	*	15.0	21.1	23.1	31.8	*
L:C ratio	*	0.54	0.79	2.17	0.80	*
(L+LD):C ratio	*	0.97	1.26	2.96	1.40	*
N	13	240	185	121	22	18
Less prosperous						
Conservative	*	30.7	21.3	14.3	*	*
Labour	*	31.8	40.7	47.1	*	*
Liberal Democrat	*	18.2	17.6	18.6	*	*
Did not vote	*	14.8	17.6	12.9	*	*
L:C ratio	*	1.04	1.91	3.29	*	*
(L+LD):C ratio	*	1.63	2.74	4.59	*	*
N	3	88	108	70	12	9

Key to rows: L:C ratio – ratio of Labour to Conservative percentage of votes cast; (L+LD):C ratio – ratio of Labour plus Liberal Democrat to Conservative percentage of votes cast

Note: *N less than 20

linked to voters' propensities to support the main opposition party rather than that of the incumbent government.[12]

Table XII also provides some evidence of a scale effect, of voters responding more to high unemployment rates in very local rather than more extensive areas. Among those who thought their area had stayed about the same relative to the national situation, the Labour:Conservative ratio was higher where the unemployment rate of 15 per cent or more applied to their nearest enumeration district or the districts with the nearest 500 persons to their homes than where the same rate applied to the districts with their nearest 1000, 2500, 5000 or 10 000 persons.

To investigate whether the patterns are scale invariant further, Table XIII uses a nested design similar to that in Table XI, looking at only those n10 000 areas (ie the districts containing the nearest 10 000 persons to each respondent's home) with unemployment rates below 9.0 per cent. Within these, we provide summary voting data (the ratio of Labour to Conservative vote percentages) for the three smallest scales only: nED, n500 and n1000. For all three 'subjective evaluation' categories, these show that the higher the local unemployment rates the greater the propensity to vote Labour rather than Conservative. Thus there are variations in responses to the economic situation at these very local scales: within areas no larger than the average

Table XII Vote by 1991 unemployment rate and evaluation of local economy: various spatial scales – ratio of Labour to Conservative votes

	Bespoke neighbourhood					
Unemployment rate	*nED*	*n500*	*n1000*	*n2500*	*n5000*	*n10 000*
More prosperous						
0.00 -2.99	0.50	0.50	0.57	0.50	*	*
3.00–5.99	0.79	0.63	0.50	0.43	0.55	0.54
6.00–8.99	0.72	0.79	1.09	0.93	0.69	0.55
9.00–11.99	1.23	1.52	1.23	1.73	2.56	3.00
12.00–14.99	1.07	1.19	1.27	3.01	1.31	1.20
15.00–	2.36	2.14	2.33	2.33	2.19	2.52
About average						
0.00–2.99	0.50	0.67	*	*	*	*
3.00–5.99	0.95	0.80	0.78	0.75	0.71	0.67
6.00–8.99	1.00	1.11	1.18	1.06	0.87	0.95
9.00–11.99	1.77	1.52	1.49	1.84	2.16	1.94
12.00–14.99	2.17	2.41	2.09	2.33	3.67	2.88
15.00–	4.02	4.06	3.84	3.34	2.99	3.22
Less prosperous						
0.00–2.99	0.90	0.83	*	*	*	*
3.00–5.99	2.00	1.79	1.45	1.14	1.00	1.24
6.00–8.99	2.09	1.95	1.94	2.46	1.91	1.69
9.00–11.99	3.81	3.65	5.00	3.86	5.46	4.47
12.00–14.99	7.84	11.00	9.58	8.05	9.80	6.38
15.00–	10.64	10.89	9.08	10.59	10.48	11.48

ward in a metropolitan district (ie n10 000 bespoke neighbourhoods), the higher the unemployment rate in a subdistrict no more than a tenth of that size (n1000 bespoke neighbourhoods), the greater the support for Labour rather than the Conservatives. Voters, it seems, were responding in 1997 to very local variations in the economic well-being of their neighbours, as well as to variations at the scales of analysis usually employed. By holding constant the context at one scale, we have found substantial variations in the relationship between evaluation and voting at a smaller scale.

Conclusions

The analyses reported here have provided strong evidence not only that how people voted at the 1997 British general election in England and Wales was linked to their evaluation of the performance of their local economy since the last election, but also that this was very much a geographical phenomenon. There were geographical variations in those economic evaluations at a variety of spatial scales, which were correlated with an 'objective indicator' of an area's economic health – its relative level of unemployment. In line with models of economic voting, we found that those who thought their local area's economy had prospered over the previous five years, relative to the national situation, were more likely to vote for the government party (the Conservatives), whereas those who thought their area had prospered less than was the case nationally were more likely to vote for the main opposition party (Labour). Furthermore, we also found an interaction effect between subjective evaluations, the 'objective situation' and voting: whatever individuals' evaluations of the local situation, the higher the level of unemployment there the smaller their probability of voting Conservative and the greater their probability of voting Labour.

These findings are suggestive of a neighbourhood effect, of people responding to their local situation in how they vote. In addition, because we have been able for the first time to study voting patterns at a much smaller scale than has been the case in any previous analyses, we have shown that it is very much the *local* situation to which people are responding, down to individual 'bespoke neighbourhoods' averaging only 500 individual

Table XIII Vote by 1991 unemployment rate and evaluation of local economy: various spatial scales where unemployment rate at n10 000 scale was below 9.0 (ratio of Labour to Conservative votes)

	Bespoke neighbourhood					
	nED	*(N)*	*n500*	*(N)*	*n1000*	*(N)*
More prosperous						
0.00 – 2.99	0.53	(41)	0.56	(28)	*	(18)
3.00 – 5.99	0.64	(183)	0.56	(194)	0.46	(200)
6.00 – 8.99	0.43	(114)	0.48	(114)	0.62	(120)
9.00 – 11.99	0.72	(35)	1.10	(37)	1.00	(39)
12.00 – 14.99	*	(12)	*	(11)	*	(8)
15.00 –	*	(6)	*	(7)	*	(5)
N		(391)		(391)		(391)
About average						
0.00 – 2.99	0.50	(54)	0.67	(41)	*	(10)
3.00 – 5.99	0.76	(260)	0.65	(262)	0.67	(292)
6.00 – 8.99	0.95	(212)	1.03	(225)	0.93	(241)
9.00 – 11.99	0.90	(79)	1.00	(76)	1.32	(73)
12.00 – 14.99	1.14	(26)	1.16	(23)	*	(15)
15.00 –	*	(8)	*	(12)	*	(6)
N		(637)		(637)		(637)
Less prosperous						
0.00 – 2.99	0.90	(29)	*	(18)	*	(5)
3.00 – 5.99	1.48	(121)	1.39	(128)	1.13	(136)
6.00 – 8.99	1.53	(82)	1.58	(87)	1.48	(95)
9.00 – 11.99	2.00	(45)	1.60	(46)	4.59	(49)
12.00 – 14.99	*	(14)	*	(12)	*	(6)
15.00 –	*	(6)	*	(6)	*	(5)
N		(297)		(297)		(297)

Note: *N less than 20

residents. There is a twofold interaction effect. In the first place, there is the effect just described: the probability of a vote against the incumbent government is greatest among those who think their local area is performing badly, especially where the local unemployment rate is high. Secondly, there is a nested hierarchy of scale effects. People living in an area where the overall level of unemployment is relatively low (as indicated by their n10 000 'bespoke neighbourhood') are much more likely to vote against the government, whatever their evaluation of the local economy, if the unemployment rate is high in their immediate neighbourhood (their n1000 'bespoke neighbourhood', for example). Local pockets of high unemployment in an area where it was generally low produced greater support for the Labour party than was the case elsewhere in the area.

The processes involved in producing these interaction effects have not been divulged by the data employed here, and we can only infer why it is that people vary in not only their evaluations of the local economy but also how they translated this into their party choice at the 1997 general election. But the circumstantial evidence is very strong. Not only do the well-established economic voting models operate, but they also involve a local interaction effect: people living in relatively small areas with relatively high unemployment are much more likely to vote against the incumbent government than are those living in areas of lower unemployment – whatever their views on the state of the local economy. As geographers are demonstrating in an increasingly wide range of studies of individual behaviour, place matters!

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Notes

1 The seminal work on pocket-book voting was Fiorina (1981); for an overview, see Lewis-Beck (1988)

2 Price and Sanders (1995) do include region as one of the independent variables in their models – showing that where people live at the macroscale was linked to how they voted, when their economic evaluations were held constant – but did not look at any possible interaction effects of interregional variations in those evaluations.

3 The Governor of the Bank of England was reported as saying in 1998 that increased unemployment in the 'north' was a necessary price for controlling inflation in the 'south'.

4 Brooks and Prysby (1999) note that, despite the popularity of economic voting models in the USA, only one study had been undertaken of spatial variations in its operation (Weatherford 1983a; 1983b): their own study was followed by Niemi *et al* (1999).

5 Scotland had to be omitted because of difficulties matching the individual and ecological datasets discussed.

6 The relative lack of spatial specificity in the question may have introduced considerable variation in the responses, with some interpreting 'this part of Britain/Scotland/Wales' as a large region, others as a smaller region, individual city or town, or even neighbourhood – with implications for the patterns analysed here. Unfortunately, there is no way of specifying the area referred to in any greater detail.

7 As with all studies of voters conducted after an election, there is a possibility that some of them may have been influenced in their evaluations of the local economy by their voting choice, rather than vice versa. This is probably more serious a problem with questions regarding prospective than retrospective economic evaluations.

8 Using JUVOS data on the number of registered unemployed, the correlation between the number unemployed in May 1991 and May 1997 at the constituency scale was 0.9422; at the ward scale it was 0.9566. These provide convincing evidence that the relative geography of unemployment did not change over the six years.

9 Similar data relating to the 1992 general election are analysed in Pattie *et al* (1997).

10 The only exception to this occurs among the small number who thought their area's situation had remained 'about average' and whose ward unemployment rate exceeded 12 per cent.

11 We ran our algorithm five times for the respondents in the BES survey. In this way, we constructed bespoke neighbourhoods for each respondent comprising not only their home ED but also the nearest 500, 1000, 2500, 5000 and 10 000 persons to their home addresses. This was done without in any way compromising the confidentiality undertakings given to the BES respondents by the CREST team who undertook the survey. Initially, we were provided with the respondents' postcodes only, with nothing that would link that file to any other containing data about the individual. We then created the bespoke neighbourhoods and returned these to the CREST team, who merged our file with another containing identifiers that allowed us to link it with the original data files. At no time, therefore, were we able to identify where individual respondents live below the ward scale.

12 Only a small proportion of the sample (170 of 2713 respondents) were either unemployed at the time of the survey or had experienced a period of unemployment between the 1992 and 1997 general elections, so these findings are not replicating an individual-level factor.

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