Geolocation and vote: candidate-voter distance effects on party choice in the 2010 UK General Election


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Abstract

The effect of geographical distance between candidate and voter on vote likelihood in the UK is essentially untested. In systems where constituency representatives vie for local inhabitants’ support in elections, candidates living closer to a voter would be expected to have a greater probability of receiving that individual’s support, other things being equal. In this paper, we present a first proof of concept using constituency data (specifically, notice of poll address data) from the British General Election of 2010 and the British Election Survey, together with geographical data from Ordnance Survey and Royal Mail, to test the hypothesis that candidate distance matters in voters’ choice of candidate. Using a conditional logit model, we find that the distance between voter and candidates from the three main parties (Conservative, Labour and Liberal Democrat) matters in English constituencies, even when controlling for strong predictors of vote-choice, such as party feeling and incumbency advantage.
Introduction

The role of geographical distance in candidate evaluations by voters and subsequent vote choice remains one of psephology's relatively untested hypotheses. Theories of representation would suggest that, in systems where constituency representatives vie for local inhabitants' support in elections, candidates living closer to a voter should have a greater probability of receiving that individual's support, other things being equal. Yet, to date there have only been qualitative or inferential, indirect tests of this hypothesis in the UK, and relatively little research on other countries. This has principally been due to insufficient data to allow the measuring of distance from voter to candidate in any meaningful manner, as well as an absence of accessible software to allow the calculation of such distances other than by time-intensive means, even were locational data available.

Advances in open source geographical data and Geographical Information Systems (GIS) software, together with publicly available election data, mean that such hypotheses are now more easily testable. In this paper, we present a first empirical proof of concept using constituency data from the British General Election of 2010 and the British Election Survey, together with geographical data from Ordnance Survey, to test the hypothesis that candidate distance matters in voters' choice of candidate. We map constituency residence of all Parliamentary candidates, including candidates who under the new electoral law did not disclose their residential address, and where possible calculate a distance measure to voters sampled by BES living in their constituency. We find that, in English constituencies, distance between a voter and candidates from the three main parties (Conservative, Labour and

Thanks to Will Jackson for his work on collecting the notice of poll data, and Paul Ruenz for his work on collecting incumbency data. We also acknowledge the support of the Faculty of Arts, Media and Social Sciences of the University of Salford which provided the pilot-funding to carry out the data collection.

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Liberal-Democrat) does matter, even when controlling for traditional predictors of voting, such as party feeling and incumbency advantage.

**Locality and distance**

The literature dealing with candidate location is patchy. A set of works looking at the so-called ‘politics of presence’ considers the reasons for voters preferring candidates whose profile matches that of their eventual constituents, not just in terms of being ‘local’ – the definition of which we turn to shortly – but also in terms of their profile (Childs and Cowley, 2011; Evans 2011). Other work extends the notion of locality from the individual to the concept of constituency itself and notions of territorial constituencies (Rehfeld, 2005). In some respects, this work has a normative component rooted in thedelegate concept of representation – voters *should* support candidates with local roots and demographic, as well as attitudinal / ideological, proximity. A much broader literature looks at the supply side of candidate selection by parties in the UK and beyond (Denver, 1988; Pedersen et al, 2007). In earlier literature, there is some consideration of candidate residence (Katz, 1980; Crewe, 1985).

The empirical literature is less established, and in the UK case there is very little work specifically testing the hypothesis that ‘local’, in terms of candidate spatial location, matters. In the US, Gimpel et al (2008) look at the distance between gubernatorial candidates’ hometowns and other counties in the State, hypothesising that there is a non-linear relationship between distance and trust, and thus to vote, and find at the meso level that this relationship does pertain. Johnston’s earlier work on New Zealand local elections found limited evidence of a local effect (1973a: 422) but surmises that at national elections, “[v]oters are unlikely to cross party lines to support a local candidate” (420). Hypothetical mapping of the distance effect through residential and work location states most clearly a candidate-oriented methodological perspective (Johnston, 1973b: 75).

Cox’s seminal work on spatial effects included study of distance effects, such as centre-suburban location of London constituencies (1968), but
investigation of his influential concept of “neighbourhood effect” has been more prevalent in the UK, with different studies concluding that social interaction as an effect does not have a significant impact (Curtice, 1995) or precisely that conversations with family and friends will influence individuals as to how they should vote (Pattie and Johnston, 2000). This follows the extensive literature on peer socialisation, opinion leaders and group interests from Lazarsfeld et al’s work onwards (1948, 1954). Rush has looked at the number of MPs with direct constituency connections – not just living in the constituency, but also place of birth, education, public service and so on – and found that the highest levels are found amongst Labour and Liberal Democrat MPs, with much lower levels amongst Conservatives (Rush, 2001; Rush in Childs and Cowley, 2011: 6). Yet, this work is ex post – MPs are identified as having local connections, but the effect on electoral competition is unknown. The localism of all candidates, or at least of all relevant candidates, needs to be controlled for to test the effect on competition, rather than knowing the profile of MPs alone. Johnson and Rosenblatt show using the British Social Attitudes Survey and Hansard / Electoral Commission Audit of Political Engagement that relatively consistently across time, voters have identified localness – being from the local area – as one of the most important attribute for their MP to have (Johnson and Rosenblatt, 2007: 166). Again, however, this does not clarify how localness will affect an election with varying permutations of localness amongst constituency candidates.

Some other approximate tests similar to Cox’s neighbourhood effect have been carried out on the American case, in particular testing ‘home state advantage’ (Lewis-Beck and Rice, 1983; Garand, 1988). This builds on VO Key’s assertion that candidates for state office will do much better in their home counties (Key, 1950). Lewis-Beck and Rice’s work finds that presidential candidates will win a premium beyond their expected vote in their home state, not enormous but sufficient to matter in a close race (1983: 551). They also find that three other key variables mediate this effect – size of state, with smaller states providing opportunity for greater levels of contact, peer networks and knowledge of the candidates; the party affiliation of the candidate, to allow for differential turnout between Democrats and
Republicans; and an incumbency effect, with incumbents securing higher turnouts. Garand’s test is more mixed in its outcome, finding evidence of home-state but not of regional advantage (1988: 96).\(^2\) Rice and Macht (1987a) consider whether this advantage accrues from otherwise non-voters being mobilised by the local candidate, or by vote-switchers choosing the local against their normal party loyalty, and find that both play their part. Home-stage advantage is sufficiently well established to be used in forecasting models of US presidential elections to factor in the local premium candidates receive (Rosenstone, 1983; Campbell, 1992).

Being a ‘local’ candidate, then, can matter in a variety of ways. The definition of ‘local’ is of course multifaceted. Simply because a UK Parliamentary candidate lives in their constituency does not mean that they will be perceived as local. Potentially, a candidate who does not live in the constituency may conversely be perceived as ‘local’, because of their place of birth or some alternative affiliation, although \textit{a priori} such heterogeneous situations would appear skewed more to the former situation.

Whilst such complex considerations of localism are of undoubted interest, the lack of empirical research is a problem. At the empirical level, we are not aware of a test of first principles from the voter perspective, to verify that some – any – manifestation of localness matters in how voters decide in a UK national election contest. Public attitude data are unhelpful in this respect. Asking mass publics whether they think it is important that a candidate is local introduces a whole range of interpretative and context-specific meanings of local to the equation, and may even introduce notions with which voters agree, despite there having been in fact no influence in the election. In the first instance, then, we wish to identify as simple and unambiguous a test of localness as possible, before turning to more involved aspects of the definition.

\(^2\) Indeed, Garand’s analysis shows that presidential candidates seem to do worse in their home region, particular Democrat candidates (1988: 101).
If we ask the question ‘local to what?’, the most obvious response is ‘to the voter’. In that sense, what we should be interested in is a measure of localness between the voter and the candidate, and as a first step most likely a distance measure. Furthermore, the most obvious loci for measuring relative locality between candidate and voter should be residence. Simply put, if localness matters, then *ceteris paribus* a voter should prefer a candidate who lives closer to them than one who lives at a greater distance. This is intuitively appealing. As Lewis-Beck and Rice noted, a candidate in closer proximity to a voter will be more likely to be known to some degree ‘personally’ to the voter, can be expected to have similar concerns to the voter at local level, and will see the community resonate with them (1983:552). Johnston endorses the latter two of these arguments – “The candidate wins the voter’s support because a local representative is considered desirable, regardless of party, because he would fight for local causes, or because of the voter’s pride in the local boy and his hope for reflected glory.” (1973: 42) – but precisely steers away from a widespread effect of personal contact with the candidate due to its limited range.

Distance itself is a complex affair, but one well explored in physical and human geography. Building upon distance as commonly defined, ie. Euclidean distance between two points, geographers have identified more appropriate measures to be used according to context (Gatrell, 1983: 29). “Straight-line distance” or the “as the crow flies” metric is often replaced by favour of taxi-cab, city-bloc metrics or route metric – road distance covered, for instance. Distance as measured by time, for example using so-called ‘isochrones’, are fundamental to traffic analysis (Clark, 1977). Economic distance sees cost incurred to cover the space between two locations as a key metric (Lowe and Moryadas, 1975). The psychologically informed metric of ‘cognitive distance’, which taps respondents’ estimates of distance between locations, may differ from travel time and Euclidean distance (Canter and Tagg, 1975; MacEachran, 1980). In our study, all these distance metrics may be relevant for how voters are to be placed relative to their Parliamentary candidates.
In social science terms, distance could also be interpreted as indicating a relative position based upon a socio-economic index such as class, relative district wealth or another comparator. The role of social and locational context in determining voting behaviour has been well studied elsewhere, finding voters to be as influenced by their social environment and territorial position as by individual characteristics (e.g.; Johnston et al, 2001). In the context of voting behaviour, relative indicators would be likely to influence electoral choice: we might expect voters to favour candidates with less socio-economic distance between them, in terms of occupational status, residential area or indeed individual prosperity. However, we leave this test for another paper – such hypotheses would add an additional layer of complexity before we have tested the first principles. Lastly, returning to more commonly held notions of distance, the ‘true’ measure may not be one based upon a ratio scale, but rather a step-change based upon areas of proximity, e.g. ‘my street’, ‘my ward’, ‘my constituency’, ‘a neighbouring constituency’, ‘my region’, and so on.

Empirically, we restrict ourselves here to testing whether distance, as an objective proxy for a multiplicity of perceptions of localness, influences the probability of an individual voting for a candidate, other things being equal. Unlike US studies of localism, we do not predicate the distance hypothesis on the strength of local ties that a candidate may have, and the relationship this may have with size of population in the relevant agglomeration (Rice and Macht, 1987b: 450). Of course, local ties will matter, both directly – involvement in the community – and indirectly – perception of ‘localness’ through place of birth, length of residence, and so on. However, such indicators of localness and local involvement are not easily quantified, so we must necessarily leave these to one side. We do follow Rice and Macht in controlling for incumbency, although not for the same reasons as the US case, namely that incumbency may increase gubernatorial and senatorial candidates’ performance in other parts of the state, thereby diluting the home-state advantage. In UK general elections, candidates only receive a vote in a single constituency, and we are concerned with individual distance, tested
below in a probability model, rather than size of overall vote share. We return to the UK role of incumbency below.

In the UK case, of course, and most specifically in the 2010 election, which we use as our case-study, there is ostensibly a potential problem with the notion of localness. The phenomenon of ‘flipping’ – that is, the ownership of multiple properties, and the shifting designation of primary and secondary home for the purposes of Parliamentary expenses claims – has confused the notion of MPs’ residence in many people’s minds. If a candidate owns a constituency home, but lives in a London residence during Parliamentary terms, which of those will constitute their residence? Furthermore, the likelihood of owning a property designated as residence is much higher for MPs than for other candidates. Any apparent distance effect may in fact be simply due to residency where other candidates live further away.

A number of reasons lead us to believe that such an issue is of lesser importance than at first might seem the case. Firstly, this applies only to elected MPs, not to all Parliamentary candidates and, as above, any reasonable model specification will control for incumbency, thereby picking up any prior residential effect that might otherwise be spuriously picked up as a distance effect. Secondly, whilst there have been a number of high-profile cases of flipping in the expenses scandal, these remain the minority. Given that a number of MPs stood down in the aftermath of this scandal, however, the number of cases as a proportion of the number of candidates will be modest. (To distinguish between incumbent candidate and incumbent party in this respect, we include these as separate variables.) Indeed, from the high saliency of this issue in the two years leading up to the election, the main effect is likely to have been to draw the attention of voters to the location of their sitting MP’s home.

Another potential issue is whether voters know where the candidates live. Again, collecting survey data to enquire whether an individual knows these addresses would be an unsatisfactory method of tapping this information. A simple ‘yes / no’ response to multiple requests re individual candidates in a
survey will not yield data for which we can have confidence in its validity. Asking respondents to give an actual address sets the bar unattainably high. From the perspective of first principles, then, we need to assume that, if voters are aware of where candidates live, and this matters to them, this will be reflected in their likelihood of voting for the candidate. We do not expect that voters know the distance to each candidate’s residence. Rather, we wish to see if there is evidence that relative distance of candidates influences the party choice of voters to any degree.

It is certain at least that all voters have the opportunity to be aware of their candidates’ respective residential locations, as these are printed on all ballot papers. Whether voters recall seeing this information, or consciously use it in their selection is unknown – that the information is freely available to every voter is known. With one specificity of the 2010 General Election, which we will consider below, we therefore potentially have a dataset which gives full information for all candidates contesting the election.

Data
The analysis uses a range of datasets. To map constituency boundaries across England, the open-source OS OpenData Boundary-Line™ ESRI shapefile is imported into Quantum GIS (QGis), itself an open-source geographic information system package. Candidate addresses were collected using the notices of poll published four weeks before the election. All 650 UK constituencies were covered, with notices returned either directly or downloaded from local authority websites. The postcode for each candidate was recorded, where given. It is important here to note that the requirements for statement of residence of the 2010 election were different to previous elections held over the last 140 years, as candidates were not required to record their home address on the notice of poll, and were given the option of stating only their constituency of residence. Precise locations of candidate

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3 QGis is available from the OSGeo Foundation at www.qgis.org.
4 Consultation on the publication of candidates’ addresses at UK Parliamentary elections was held at the end of 2008 (Consultation Paper CP(L) 30/08) and a clause added to the Political
residences were identified using the Code-Point® point data file, which includes latitude / longitude coordinates for every GB postcode.\(^5\)

Voter-related data were taken from the short-term in-person panel component of the British Election Survey 2010. For reasons detailed below, we model electoral choices for the three main parties in England as self-reported after the election while controlling for pre-campaign feelings. However, Northern Ireland had to be excluded \textit{ab initio} due to an absence of the 2010 constituency boundaries in the necessary ESRI format, and therefore leaving us with 632 constituencies.\(^6\) The total sample size of the panel component is 1498. Because of the oversampling of the UK’s smaller nations, restricting the sample to English voters excludes about 23 per cent of the panellists, with self-declared non-voters and voters of smaller parties making up roughly 10 per cent of the remainder, leaving us with 887 cases.\(^7\) These cases represent 146 of the 149 English constituencies that were covered by the BES short-term panel.

\textit{Method}

We start by considering some simple diagnostics of candidate location – whether they live in their constituency or not, and whether they reveal their address or not – by political party, to ascertain the extent of candidate address withholding, as well as a rough proxy for distance from their constituency of residence. Somewhat counter-intuitively, it is easier to

\textit{Parties and Elections} Bill in March 2009 allowing candidates to withhold their full address on their nomination paper, and instead identify their residential constituency (SN/PC/05004). A new and confidential ‘home address form’ now accompanies the nomination paper.

\(^5\) Both the OpenData Boundary-Line™ and Code-Point® datasets are available from Ordinance Survey’s OpenData site (http://www.ordnancesurvey.co.uk/oswebsite/opendata/).

\(^6\) At the time of writing, the 2001 constituency boundaries were available in ESRI format, together with a postcode dataset from the Northern Ireland Statistics and Research Agency (NISRA). However, since the 2007 constituency boundary review, the admittedly small changes to Northern Ireland constituencies render the 2001 dataset unusable for the purposes of this research when precise locational data is required.

\(^7\) 30 respondents who refused to reveal their vote choice or claimed that they could not remember which party they had voted for were also excluded.
ascertain whether a candidate lives in their constituency or not when they do not give their home address, as their residential constituency (rather than the constituency in which they are standing) is listed. For candidates who give their home address, it is necessary to locate their residential constituency by identifying their address within constituency boundaries using the OS OpenData Boundary-Line™ ESRI shapefile and Code-Point® point data file. Mapping the constituencies as polygons, QGis then identifies (mis)matches of residential constituency and political constituency polygons. Figure 1 demonstrates the resulting graphical output for candidates revealing their residential address by constituency match, using the South-West of England as an example.

Figure 1 about here

Table 1 presents the candidates by political party and their residential address information as provided on the notice of poll.

Table 1 about here

It is worth noting that around four out of five mainstream candidates gives their address, despite not being required to. More extremist parties such as the BNP and English Democrats were perhaps understandably more likely not to give their home address, with a majority of BNP candidates withholding their address – and indeed, together with the Liberal Democrats, a majority living outside the constituency. Despite a number of withheld addresses, this still leaves an potential analytical sample size of 2898 candidates.

8 There is some anecdotal evidence that a number of candidates, including incumbent MPs, were not aware of the relaxed rules regarding reporting addresses in 2010.
9 In certain constituencies key to the BNP’s campaign, such as Barking, it is striking that the majority, if not entirety, of candidates withheld their home address. Rallings and Thrasher estimated around three-quarters of candidates giving their address, with urban constituencies most likely to see candidates withholding (Rallings and Thrasher, 2010: 14).
In the subsequent analysis, as well as Northern Ireland being excluded, Scotland and Wales have to be excluded, as an identical set of parties is needed across constituencies to fit our model. With the resulting classifications of candidates by their provision (or not) of home address and their residential constituency, Table 2 gives the breakdown of this information by major political party in the 533 English constituencies.

As Table 2 indicates, only the three main parties in England fielded candidates consistently across the totality of constituencies.\textsuperscript{10}

For the purposes of our distance analysis, the correspondence between residential and political constituency is not crucial, as we measure distance between home address and voter location, irrespective of a candidate’s residential constituency. The first and third columns summed, then, give a proportionate indication of the number of datapoints we have by candidate.

Location of voters is less easily tapped. Whilst we have (almost) complete data for candidates, we evidently need to rely upon survey data to identify the residential location of a small sample of voters. The British Election Study provides the obvious source of data in this regard, but unfortunately – if understandably – it does not provide the full postcode for respondents, only the first letter(s) and digit(s), i.e. the postcode area and district. There are currently roughly 2,900 postcode districts in use in the UK, and almost all of them are far too large to locate voters with any reasonable degree of accuracy.

Fortunately, the BES does provide a code for the respondents’ electoral ward.\textsuperscript{11} The Office for National Statistics’s most recent (December 2010

\textsuperscript{10} With the exception of Buckingham, where the Labour and Liberal Democrat parties withdrew their candidates as tradition dictated in favour of the Conservative Speaker of the House, John Bercow.
edition) file lists 7,681 English wards, most of which are rather small. Our 887 respondents live in 271 of these wards. Figure 2 indicates the location of these wards.

Figure 2 about here

We then use the centroid – the notional centre of balance of a polygon – of each ward to estimate the location of the voter and consequently calculate, using Google Geocoder API\(^1\), the distance between this position and the locations of the relevant candidates to generate a set of distances from a voter to each of their three candidates. Using centroids instead of the voters’ exact positions introduces some statistical noise into our model, but we believe that the effects are moderate: 50 per cent of our wards cover an area of 1.7 square miles or less, with 75 per cent being smaller than just above 5.2 square miles. The distribution is, however, heavily skewed to the right: the top five per cent of the wards cover areas between 23.3 and 36.9 square miles.

As discussed in the theoretical section, there are a number of ways of calculating the distance between two points. The three most common are straight-line distance, route distance and time travelled. Figure 3 gives a depiction of the first of these two mapped in a hypothetical constituency using the QGis software.

Figure 3 about here

We calculated all three for each distance. However, given there was a very high correlation between all three (Pearson’s \(r > 0.90\)) we use distance by car, as we believe that this comes closest to the psychological rationale that voters might employ when – if – thinking spatially.

\(^{11}\) In some of the new Unitary Authorities, wards are legally termed ‘electoral divisions’. See http://www.statistics.gov.uk/geography/electoral_wards.asp for more information on the UK’s administrative geography.

\(^{12}\) Details on Google Geocoder API are available at http://code.google.com/apis/maps/documentation/geocoding/
Lastly, then, we simply wish to look at whether distance between the voter and candidate location has an effect on likelihood of voting for that candidate. At the risk of repeating ourselves, our hypothesis is the following:

*Other things being equal, the likelihood of an individual voting for a candidate decreases as distance from the individual’s residence to the candidate’s residence increases.*

To test this robustly, we need to include the distance measure in an appropriate model controlling for other standard explanations of vote. Clearly, a fully specified model of vote along the lines of Michigan is not feasible given the analytical sample size. We therefore choose a basic thermometer of party feeling as our key control, hypothesising that all prior causes of vote are likely to manifest themselves through this pseudo-instrument. We use party feeling from before the campaign, to ensure that this is free from campaign effects, band-wagoning from knowing the outcome of the election and other similar biases. We also expect that, prior to the campaign, knowledge of candidates’ residential whereabouts will be at its lowest, with all voters having similar access to this information only at the stage of balloting.\(^{13}\) Party feeling covers the majority if not all of the variables squeezed through the funnel of causality. However, we also control for candidate and party incumbency to tap incumbent inertia in the former case, and constituency political tradition in the latter.

In passing, little empirical work has been done which focuses explicitly on incumbent advantage in the UK case, unlike in the US, with many studies using incumbency simply as an ‘obvious control’. What work has been done has been inconsistent in its findings, although work finding less importance for UK incumbency tends to come from the US, where incumbency has

\(^{13}\) Those opting to cast their ballot by post do potentially have much longer to consider ballot-paper information, and indeed to trawl for more candidate information, than a voter going to the polling station.
traditionally counted more. Despite consistently stronger partisan foundations to vote than in the US, Cain et al (1987) found evidence of Labour incumbency effects, and increasing importance for incumbency generally (although not at US levels). Fieldhouse and Cutts more recently found, however, that the Labour party ran significantly stronger campaigns in constituencies with incumbent candidates (2009: 382). Gaines, on the other hand, found incumbency advantage in the UK to be strongest for Liberals – a finding supported by Denver et al (1998) – but with little or no effect for Conservatives or Labour (1998). Our inclusion of incumbency falls in the ‘obvious control’ camp, however.

We model party support including the above variables using a conditional logit model. Unlike more common binomial and multinomial logit models, the conditional logit models can estimate effects of alternative-specific variables (i.e. distances between a voter and each candidate). Put differently, we estimate a single coefficient for the effect of distance, but the values of this variable differ for each category (vote) of the dependent variable (Long, 1997: 178). Using the Labour candidate as the reference, the model will estimate the likelihood of a Conservative or Liberal Democrat vote, with single control estimates for incumbency, party feeling and driving distance, measured in kilometres. We present three nested models, showing the effects of incumbency when added to the model.

**Analysis**

Table 3 presents the conditional logit model of party distance effect on relative support for the three main parties in England. The model includes two constants that capture any differences in the baseline probabilities of voting for the three parties (after controlling for the independent variables).

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14 On incumbency advantage and its effect on minority parties, see also Ansolabehere and Gerber (1997).
Everything else being equal, a Tory vote is significantly more likely than a vote for Labour, whereas the difference between the Liberal Democrats and Labour is not significant.

As expected, by far the best predictor for party choice is pre-campaign party feeling. Across the 11-point range, the logit increases by 0.8 for every one-point increase. Note that the model is ‘alternative-specific’, so the distance effect is the same for all parties, but for each respondent the direction and intensity of each voter’s feelings are obviously likely to differ across parties.

In Model 2, the effect of incumbency status is also significant even after controlling for pre-campaign party feeling. This is intuitively appealing, the coefficient reflecting the effects of political learning throughout the local campaign, where incumbent candidates will focus on the experience gained during their previous term(s), and their achievements for their constituencies – in other words, constituency service. Again, incumbency status is an alternative-specific variable, i.e. we treat it as a feature of the candidate that has a uniform positive effect, regardless of the candidate’s party affiliation.

Including incumbency status in the model slightly reduces the estimate for the effect of distance. This is due to the fact that incumbent candidates live an average 5.5 miles closer to their potential voters, presumably because non-incumbents will often have not moved into the constituency. If we unpack incumbency status, as we do in Model 3, it is easy to see that its effect has nothing to do with a party carrying a constituency. Rather, this is a personal (and strong) effect. Finally (and most importantly for our research question) the effect of distance is weak, but still significant.

How does this translate into ‘quantities of interest’, i.e. wins/losses for the parties? One thing that we should keep in mind here is that we are looking at

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15 While the median distance for incumbents and non-incumbents are almost identical, the proportion of candidates who live far (more than 45 km) away from their (prospective) constituents is roughly three times higher for non-incumbents.
voters for the three main parties only. Moreover, the sample is certainly biased, because we can only look at English panellists who responded to both pre- and post-election waves, to allow us to measure pre-campaign feeling and actual vote, and we have not applied any weighting. In the end, however, we are not interested in levels of vote (i.e. Labour at 40 per cent!), but rather in marginal change.

Table 4 about here

Table 4 provides some simulations of scenarios of three-party competition including candidates based at different distances from the ‘average’ voter. The upper half shows the real distribution of the independent variable, i.e. average feeling for the three parties in the sample, the proportion of respondents for whom the respective candidate/party is the incumbent and the average distance (in km). By and large, candidates are local on average (19-27 km away), and Labour is by far the least popular party. Below the line, the ‘Real’ row shows the expected probabilities of a Conservative/Liberal Democrat/Labour vote, conditional on the distribution of the independent variables.

Scenario 1 assumes that on average, all candidates are equidistant (in this case, local: 26 km away). The impact here is negligible (basically, a minuscule exchange from Labour to Liberal Democrat), which makes sense because on average, candidates are local. Scenarios 2-4 are more interesting. These keep two candidates local (still at 26 km from the voter) while parachuting in the third candidate from 120km away. Such a strategy would cost the Tories 13 percentage points, while the Liberal Democrats (coming from a lower level) would lose only nine. Labour would lose eight. To answer the question posed by Pedersen et al (2007), “Which candidate will – or should – the local leadership prefer – the local resident/native son or the candidate from outside,

16 Official Stata does not support the calculation of expected probabilities from an alternative-specific model very well, so we employed Long's and Freese's asprvalue-ado to estimate these probabilities.
the parachutist?” it would seem from the evidence that parachuting in outsiders is risky, unless the constituency is very safe.

Discussion
As a first-principles test of geographical distance, there clearly remain a large number of refinements to be made to the model. However, the findings thus far are clear and appealing. Candidate distance does matter, with voters finding distant candidates less appealing than local ones, even when pre-campaign party feeling and personal incumbency effects are controlled for. However, the effect is relatively small. In a safe constituency, residency is not game-changing. In a marginal constituency, however, the small distance effect could prove more decisive. Certainly, as our simulations show, local is better. Of course, local is not always possible. Moreover, candidates cannot live close to all voters. In that respect, our findings do not represent any transforming ‘How To’ for political parties. What they do indicate, however, is that the thus-far largely speculative evidence for the importance of localism bears out in a relatively stringent empirical test. Voters do have a sense of who is where, and this influences their vote accordingly.

The next step in refining the model is to refine the definition of ‘local’. As the research by Childs, Cowley, Evans and others has shown, voters do gravitate to someone local, but this is not merely tapped by someone’s residence. Place of birth, regional identity and other dimension of localness all matter. Some of these are potentially, if arduously, quantifiable, and may indeed matter more than geographical distance. However, as a starting-point, residence is one aspect of localism which matters.

Distance also needs refining. Geographical distance from one ward to another distant one may matter less than socio-economic distance within a single ward. If addresses do register with voters when they look at the ballot paper, individual streets within wards may matter just as much. Again, such nuances are quantifiable, and indeed work on social delineations and economic geography are common in sociology and human geography, if less developed
to date in political science. There is a good deal further work to be done to refine a distance test to check that it belongs in a ‘full model’ of voting. However, that work appears to be worth the candle on the basis of the first cut of the data.
REFERENCES


Table 1 Proportions of given and withheld candidate addresses by party in British constituencies

<table>
<thead>
<tr>
<th>Party</th>
<th>Address given, lives in constituency</th>
<th>Address withheld, lives in constituency</th>
<th>Address given, does not live in constituency</th>
<th>Address withheld, does not live in constituency</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>52.9</td>
<td>8.6</td>
<td>28.4</td>
<td>10.1</td>
<td>631</td>
</tr>
<tr>
<td>Conservatives</td>
<td>47.3</td>
<td>10.8</td>
<td>29.9</td>
<td>12.0</td>
<td>632</td>
</tr>
<tr>
<td>Liberal Democrats</td>
<td>44.5</td>
<td>3.6</td>
<td>41.2</td>
<td>10.6</td>
<td>631</td>
</tr>
<tr>
<td>Greens</td>
<td>54.4</td>
<td>13.9</td>
<td>23.3</td>
<td>8.5</td>
<td>331</td>
</tr>
<tr>
<td>UKIP</td>
<td>35.4</td>
<td>18.1</td>
<td>28.0</td>
<td>18.5</td>
<td>557</td>
</tr>
<tr>
<td>BNP</td>
<td>21.8</td>
<td>24.2</td>
<td>26.0</td>
<td>28.1</td>
<td>335</td>
</tr>
<tr>
<td>English Democrats</td>
<td>32.7</td>
<td>21.5</td>
<td>23.4</td>
<td>22.4</td>
<td>107</td>
</tr>
<tr>
<td>Plaid Cymru</td>
<td>45.0</td>
<td>5.0</td>
<td>40.0</td>
<td>10.0</td>
<td>40</td>
</tr>
<tr>
<td>SNP</td>
<td>54.2</td>
<td>10.2</td>
<td>30.5</td>
<td>5.1</td>
<td>59</td>
</tr>
<tr>
<td>Other (incl. Independent)</td>
<td>43.1</td>
<td>23.9</td>
<td>18.4</td>
<td>14.6</td>
<td>719</td>
</tr>
<tr>
<td>N</td>
<td>1759</td>
<td>576</td>
<td>1139</td>
<td>568</td>
<td>4042</td>
</tr>
</tbody>
</table>

Note: ‘constituency’ refers to the constituency in which the candidate is standing
Table 2 Proportions of given and withheld candidate addresses by party in English constituencies

<table>
<thead>
<tr>
<th>Party</th>
<th>Address given, lives in constituency</th>
<th>Address withheld, lives in constituency</th>
<th>Address given, does not live in constituency</th>
<th>Address withheld, does not live in constituency</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>52.4</td>
<td>8.1</td>
<td>28.9</td>
<td>10.5</td>
<td>532</td>
</tr>
<tr>
<td>Conservatives</td>
<td>49.9</td>
<td>11.1</td>
<td>28.1</td>
<td>10.9</td>
<td>533</td>
</tr>
<tr>
<td>Liberal Democrats</td>
<td>45.9</td>
<td>3.2</td>
<td>40.8</td>
<td>10.2</td>
<td>532</td>
</tr>
<tr>
<td>Greens</td>
<td>53.7</td>
<td>14.4</td>
<td>22.8</td>
<td>9.1</td>
<td>298</td>
</tr>
<tr>
<td>UKIP</td>
<td>35.8</td>
<td>18.0</td>
<td>26.8</td>
<td>19.4</td>
<td>489</td>
</tr>
<tr>
<td>BNP</td>
<td>22.5</td>
<td>25.1</td>
<td>25.1</td>
<td>27.4</td>
<td>307</td>
</tr>
<tr>
<td>English Democrats</td>
<td>32.7</td>
<td>21.5</td>
<td>23.4</td>
<td>22.4</td>
<td>107</td>
</tr>
<tr>
<td>Other (incl. Independent)</td>
<td>43.0</td>
<td>24.1</td>
<td>17.4</td>
<td>15.5</td>
<td>626</td>
</tr>
<tr>
<td>N</td>
<td>1497</td>
<td>501</td>
<td>931</td>
<td>495</td>
<td>3424</td>
</tr>
</tbody>
</table>

Note: ‘constituency’ refers to the constituency in which the candidate is standing
Table 3  Conditional logit model of party support

<table>
<thead>
<tr>
<th>Vote</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservative</td>
<td>0.301*</td>
<td>0.352*</td>
<td>0.365*</td>
</tr>
<tr>
<td></td>
<td>(2.05)</td>
<td>(2.33)</td>
<td>(2.42)</td>
</tr>
<tr>
<td>Liberal Democrat</td>
<td>-0.111</td>
<td>0.145</td>
<td>0.116</td>
</tr>
<tr>
<td></td>
<td>(-0.63)</td>
<td>(0.75)</td>
<td>(0.59)</td>
</tr>
<tr>
<td>Party feeling</td>
<td>0.804***</td>
<td>0.805***</td>
<td>0.810***</td>
</tr>
<tr>
<td></td>
<td>(13.80)</td>
<td>(13.24)</td>
<td>(13.18)</td>
</tr>
<tr>
<td>Driving distance</td>
<td>-0.00736**</td>
<td>-0.00580**</td>
<td>-0.00575**</td>
</tr>
<tr>
<td></td>
<td>(-3.03)</td>
<td>(-2.46)</td>
<td>(-2.41)</td>
</tr>
<tr>
<td>Incumbent</td>
<td></td>
<td>0.308***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.17)</td>
<td></td>
</tr>
<tr>
<td>Incumbent party</td>
<td></td>
<td></td>
<td>-0.0906</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(-0.26)</td>
</tr>
<tr>
<td>Incumbent candidate</td>
<td></td>
<td></td>
<td>0.647***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(4.37)</td>
</tr>
</tbody>
</table>

N 1803

t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Table 4  Scenarios of vote distribution with variable candidate distance

<table>
<thead>
<tr>
<th></th>
<th>Conservative</th>
<th>Liberal Democrat</th>
<th>Labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party feeling</td>
<td>5.467</td>
<td>5.152</td>
<td>4.680</td>
</tr>
<tr>
<td>Incumbent party</td>
<td>0.114</td>
<td>0</td>
<td>0.0531</td>
</tr>
<tr>
<td>Incumbent candidate</td>
<td>0.336</td>
<td>0.0666</td>
<td>0.393</td>
</tr>
<tr>
<td>Driving distance</td>
<td>25.31</td>
<td>27.34</td>
<td>19.12</td>
</tr>
</tbody>
</table>

Real 52.54 26.61 20.84
Scenario 1 (All 26km) 52.76 27.04 20.20
Scenario 2 (C 120km ) 39.42 34.68 25.90
Scenario 3 (LD 120km) 59.48 17.75 22.77
Scenario 4 (L 120km)  57.62 29.53 12.85
Figure 1 Candidate locations in South-West England by constituency
Figure 2  Ward locations of analytical sample
Figure 3  Straight-line and driving distance from voter to candidate