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Expressive voting and electoral equilibrium

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Abstract. There are two rival accounts of rational voting in the public choice tradition: the mainstream instrumental account, that sees the vote as a revelation of preference over possible electoral outcomes, essentially analogous to a market choice; and the expressive account, that sees the vote as expressing support for one or other electoral options, rather like cheering at a football match. This paper attempts to lay out some of the implications of the expressive account of voting for the issue of who votes as well as for the nature of political equilibrium, and to compare these implications with those derived from the instrumental account. We also identify and discuss the alternative views of the domain of electoral politics associated with the instrumental and expressive accounts of voting, and sketch a route towards the integration of expressive and instrumental ideas in the analysis of rational electoral politics.

1. Preamble

Within the rational actor tradition in political analysis, there are currently two rival accounts of voter behaviour – what we here call the "instrumental" and the "expressive" accounts.[1] Of these, the instrumental account is clearly predominant and is sometimes taken to be a defining feature of the rational actor approach to politics (see for example, Mueller (1989: 1–2)). According to the instrumental account, voters are rational in the sense that they vote for the electoral outcome (or the candidate associated with that outcome) that they expect to leave them best off: that is, voters vote their preferences over electoral outcomes in a direct analogue to consumer choice in the market place.

On the rival expressive account, voters are also taken to be rational but the requirements of rationality are interpreted differently. The expressive account begins from the observation that, given the negligible probability of

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any particular voter being decisive, the act of voting is effectively de-coupled from the causal consequences of voting for electoral outcomes. Individually rational voting behaviour cannot therefore be explained primarily in terms of electoral outcomes: behaviour must be explained predominantly in terms of those considerations that are relevant to the voters expressing a preference in and of itself. These considerations are termed expressive considerations. Voting is, on this account, much more like cheering at a football match than it is like purchasing an asset portfolio; and any direct analogy with market choice is inappropriate.

In this paper, we shall not seek to promote either model of rational voting over the other by *a priori* theorising: we shall not, in particular, engage in argument as to which model of voting best conforms to the tenets of rationality.[2] Our primary objects here are rather: to set out an account of an expressive theory of voting; to explore the implications of that account for certain key aspects of the electoral process – issues such as the size and composition of electoral turnout and the nature of political equilibrium; and to compare and contrast these implications with those that flow from the instrumental account of voting when participation is voluntary. In short, our aim is to provide the beginnings of a positive account of the expressive theory of voting that can be compared with the existing literature on the instrumental theory of voting. We shall argue that the expressive theory of voting offers an analysis of electoral equilibrium that carries distinctively different implications from those associated with the instrumental model, and that expressive voting provides a framework which supports certain powerful intuitions about voting that are problematic in the instrumental setting.

Although our emphasis is on the contrast between the instrumental and expressive accounts of voting, we do not believe that the models are best viewed as global substitutes. Rather, the two models alert us to different aspects of politics. We will seek to identify and discuss the different views of the domain of electoral politics that we believe are properly associated with the instrumental and expressive views of voting respectively, and sketch a route to the possible integration of expressive and instrumental considerations in a more general account of rational electoral behaviour.

The issues at stake in comparing the instrumental and expressive accounts of voting are important. Most of the voluminous literature devoted to the analysis of economic policy subject to democratic constraints on government simply accepts the instrumental model of voting – often taking the median voter result as the appropriate starting point for the analysis of some further problem.[3] Our argument here re-states the point that the reliance on the median voter theorem reflects a misleading over-simplification of the instru-

mental approach but, more importantly, we argue that the expressive account of voting is likely to be a more appropriate approach to at least some issues.

Our approach contrasts with much of the recent literature in political economy by concentrating attention on the citizen-voter, and on the analysis of voting *per se*, rather than on the further institutional structure of the electoral process, the precise nature of candidate competition, or the implications of democratic process for policy outcomes. For example, Myerson and Weber (1993), Ingberman and Rosenthal (1995), Besley and Coate (1997) focus respectively on the impact of alternative voting rules,[4] the strategic behaviour of voters in attempting to divide government jobs between competing ideological parties.[5] and the endogenous emergence of candidates; but each of these papers essentially assumes that all citizens vote (and vote instrumentally) without endogenizing the participation decision. By contrast with these and other recent papers, we stress the importance of the endogeneity of the (costly) participation decision. Even in those countries which legislate to make voting "compulsory", electoral participation often falls well short of 100%; and in many countries the scale and pattern of participation is an important issue. Understanding participation seems to us to be an important part of understanding democratic political process, and a rational actor theory of political action ought to include the participation decision.

Because our discussion is conceptual and aims at the basic structure of the economic account of voting, we will develop the argument primarily in the context of the classic model of electoral competition between just two political candidates. In Section 2 we review the instrumental theory. Our aim here is to provide a summary and interpretation of the instrumental account of electoral equilibrium with endogenous participation, to act as an explicit basis for comparison with the expressive model. In Sections 3 and 4 we offer an account of the expressive voting model of electoral competition. Section 5 considers the alternative domains of electoral politics associated with instrumental and expressive accounts of voting, while Section 6 provides a sketch of how we might combine the expressive and instrumental accounts of voting to yield a more general model. Section 7 presents some concluding remarks.

2. Instrumental voting with voluntary participation

The instrumental account of voting and of electoral competition is usually developed in the one-dimensional, two-candidate case, against the background assumption of compulsory voting. At the risk of being tedious, we will briefly rehearse this standard case.

The basic building block is the citizen's demand curve over political outcomes, built up from underlying preferences in a way essentially analogous

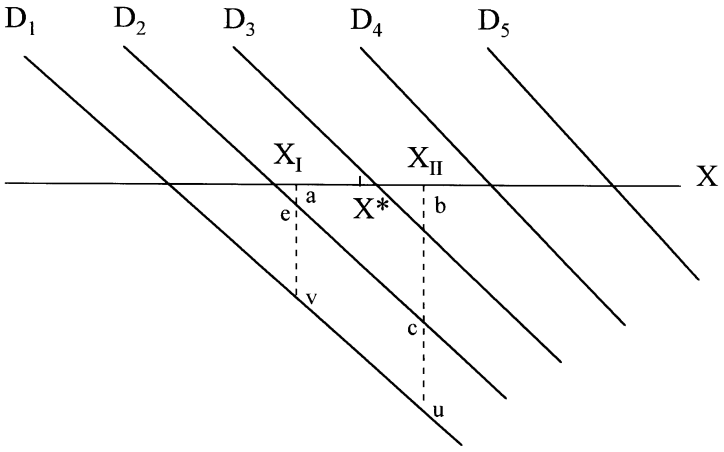

Figure 1. Instrumental demand curves.

to the market case. In an appropriately simplified formulation, the political outcome can be thought of as the level of supply of some publicly provided good, X, financed by an exogenously given tax arrangement that will determine for each individual a tax price for X. A net demand curve for public activity can then be derived for each individual, which shows that individual's marginal valuation of X net of tax costs. Different individuals will in general have different net demand curves, D_i, and hence different ideally preferred levels of output X_i, determined where D_i cuts the horizontal axis. These net demand curves will be downward sloping; and in order to avoid spurious complication in what follows, we shall take it that all D_i, are linear and have identical slopes. A family of such demand curves for a group of five citizens is depicted in Figure 1.

The two political candidates, denoted I and II, offer as policy platforms X_I and X_{II} respectively ($X_I < X_{II}$). The instrumental benefit, B_i, for voter i of having X_{II} rather than X_I as the electoral outcome is given by the area under the citizen's demand curve, over the range X_I to X_{II}. This can be positive, as in the case of citizens 4 and 5 in Figure 1, in which case the citizen will prefer X_{II}; or negative, as in the case of citizens 1 and 2 in Figure 1, in which case the citizen will prefer X_I. Each citizen will prefer the electoral option that is closer to her ideal point and, given compulsory or costless voting, each citizen will vote for her preferred candidate. If we endogenize the candidates' choice of platform on the assumption that each candidate attempts to maximise the probability of winning the election, we have the setting of the classic median voter theorem in which both candidates locate at the ideal position of the median voter.

This standard account of *how* the instrumental citizen votes can also to throw light on *whether* she will vote when participation is both voluntary and costly. The relevant literature is surveyed in Aldrich (1993), but we follow, in particular, Ledyard (1984). The basic point to be emphasised here is that, in the setting where all citizens and both candidates take full account of the strategic incentive structures, all equilibria can be characterised by three simple facts: (1) both candidates choose the same platform; (2) the chosen platform is not necessarily that of the median citizen, rather it maximises a form of social welfare function – the sum of citizens' utilities; (3) no-one votes (Ledyard, 1984: 23–29). Furthermore, such equilibria exist in a relatively wide variety of cases: existence does not depend upon the single-dimensionality of the relevant policy space, or on specific distributions of either preferences or costs of voting across citizens (Ledyard, 1984: 30–34). There will be cases where equilibria do not exist (particularly where the distribution of costs is far from uniform, or where the distribution of preferences is far from symmetric) but non-existence is not endemic.

In the remainder of this section we seek simply to draw out some of the implications of these fundamental propositions in the instrumental analysis of voting with voluntary participation. There are four general points we wish to emphasize. The first and most striking point is that, once the participation decision is endogenized in a manner fully consistent with the instrumental approach, failure to vote is to be understood as a desirable feature of electoral competition. Electoral competition has the effect of keeping citizens out of the polling booth. Electoral competition economizes on costly voting. Low turnout is desirable. This interpretation of voting is one that follows necessarily from the instrumental model, but is at odds with the intuition (which we take to be standard) that relatively high turnout is generally to be preferred.

The second point also derives from consideration of the zero-turnout nature of equilibrium. Clearly, if both candidates adopt the same platform, B_i must be zero for all citizens and no-one will vote. But this outcome is sustained as an equilibrium by balancing potential or marginal voters for each candidate against each other – so who are the marginal voters? Put most simply, those who are most likely to vote will be those who have most at stake – those for whom B_i is largest, *ceteris paribus*, or those with particularly low values of the cost of voting, *ceteris paribus*.[6]

Inspection of Figure 1 is sufficient to establish that, when candidates adopt distinct positions, B_i is larger for those individuals whose ideal points are further from the mean of the platforms of the political candidates denoted as X^* in Figure 1. Compare, for example, citizens 1 and 2. For any citizen, recall that B_i is the area between her net demand curve and the horizontal axis over the range X_I to X_{II}; this area measures the individual's utility gain

from the more preferred candidate being elected. For citizen 2 (closer to X^*) this area is *abce*; the analogous area for citizen 1 (further from X^*) is the area *abuv*. Citizen 1 has more at stake and, therefore, more reason to vote. If these two individuals face similar costs of voting, 2 will never vote unless 1 does. Alternatively, if these two individuals face costs of voting that are drawn at random from a common distribution then, *ex ante*, citizen 1 is the more likely to vote. This fact simply reflects the convexity of demand: if instrumental demand curves slope downwards, voters whose ideal points are more removed from X^* will have more at stake in the election, *ceteris paribus*, and on the instrumentalist account, are therefore more likely to vote.

This result does, of course, depend strictly on the assumption of identical slopes of all demand curves (and the interpersonal comparability of utility). If different citizens have differing elasticities of net demand for X, then net demand curves may intersect in the range between X_I and X_{II} and no simple relation between the size of B_i and the distance of i's ideal point from X^* may exist. But to reverse the thrust of the result requires that voters with more extreme ideal points have systematically higher net-demand elasticities, and no plausible justification for this possibility seems available. Indeed, the opposite might seem more reasonable. We might distinguish between two possible senses of political extremism: one associated with an ideal point at an extreme of the distribution, the other with the idea that an extremist may be more reluctant to countenance any movement from her ideal point than a more "moderate" person. This second sense of extremist is associated with an unwillingness to compromise and would be reflected in a more inelastic political demand curve. If these two forms of extremism are positively correlated – so that those who take extreme positions are also less willing to compromise, the result outlined above is reinforced. Only if there is a systematic negative relationship between the two forms of extremism would the result be threatened.

So, while the instrumental account of voting predicts zero turnout in the equilibrium of the two-candidate model, it also predicts that, when participation is non-zero, voters will be disproportionately drawn from the extremes of the political distribution. So, for example, if candidates set policy platforms so as to deter the entry of a third candidate we might expect an equilibrium in which the policy platforms of the two candidates diverge so that turnout may be positive.[7] But in cases such as these, the instrumental account of voting carries with it strong predictions concerning the composition of the set of voters as compared with the set of non-voters.

The third point follows directly – there is no scope for the idea of citizen alienation in this model. Citizens do not abstain from voting because they do not see either candidate as representing them or because they do not identify

with the candidate's position; they abstain from voting simply because there is not enough at stake – indifference rather than alienation is the key to non-participation. We do not deny that, in fact, citizens may abstain from voting because of alienation. On the contrary, we are inclined to the view that this is indeed a common motive for not voting. It is simply that the idea of alienation does not belong in an instrumental account (Slutsky, 1975).

The fourth and final point we note here involves the failure of the Hotelling spatial equilibrium analogy to transfer to the voting case: electoral competition is not quite like ice-cream sellers choosing a location on the beach, it seems. Specifically, in the ice-cream sellers analogue, there is no suggestion that the sun-bathers most distant from the ice-cream sellers are most likely to purchase ice-cream. But why is the voting case different? Simply put, the point is that citizen-voters do not "buy" anything *except* the location of the candidate. In the ice-cream seller's case, location emerges as the incidental outcome of consumers buying ice-cream. In the electoral case, and on the instrumental account, the location of the candidate has to be seen as the object of voting: there is nothing that the voter gets for voting except the change in the policy position of the rival candidates – there is simply no analogue to the ice-cream. Of course, the ice-cream analogy could be supported if voters were identified as getting something out of voting of an intrinsic kind. But that "something" is precisely what the expressive account of voting attempts to provide; and as has been argued elsewhere (Brennan and Lomasky, 1993) the expressive account, when most plausibly rendered, serves to undercut much of the instrumental voting story.

In summary, the instrumental account of voting, when applied in the case of voluntary and costly participation, yields a number of implications which are somewhat at odds with standard political intuitions and ideas. Turnout is predicted to be zero in the simple case of two candidate competition. Lower turnout is normatively desirable. Where turnout is non-zero voters will be drawn from the extremes of the political distribution. With these implications in mind, we now turn to the expressive account of voting.

3. Expressive voting in one dimension

The expressive account of voting shifts attention away from electoral outcomes and focuses on the benefits and costs to the citizen of supporting electoral candidates. The basic argument derives from analysis of the role of the probability of i's vote actually bringing about the particular desired electoral outcome: if this is small, so the argument goes, then instrumental considerations cannot play the predominant role in explaining either voter participation or voter choice. Simply put, the citizen does not face an effective choice

between alternative policy outcomes, but she does face an effective choice as to which candidate to support; and it is entirely rational for the citizen to concentrate attention on the effective choices faced.

Our purpose here, however, is to explicate and develop the expressive model of voting rather than defend it by *ex ante* theorising, and for that purpose we begin by directing attention to just two electoral phenomena – voter alienation, and voter indifference. Once these phenomena are dealt with, it will be possible to derive propositions about the nature of competitive electoral equilibria under expressive voting, and to contrast their implications with those associated with the instrumental voting account sketched in the previous section.

To alienation first. It should be clear that the expressive theory provides a natural account of voter alienation – of the idea, that is, that voters will be more likely to vote for parties/representatives/policies that are closer to their expressive ideal. Voter participation, in the sense of the voter actively showing support for something of which she approves, is analogous to the ice-cream purchased on the beach: voter participation just *is* the act of consumption that brings the voter to the poll. And just as sunbathers closer to the ice-cream stall are more likely to consume an ice-cream than sunbathers farther away, so expressive voters are more likely to vote if the option on offer is one with which they more closely identify. To be sure, the attributes with which the voter identifies (or which for some other reason induce the voter to show support) may not be specifically connected to the policies associated with particular electoral outcomes, still less with what the voter expects to gain from those policies. The voter may identify with the candidate's moral character, good looks or ethnic origin or with the candidate's or party's general ideology. In other words, the domain of politics under the expressive analysis of voting may be very different from the domain of politics under the instrumental analysis of voting (we shall return to consider this point more fully in Section 5 below). However, whatever the relevant expressive domain may be, citizens might be conceptualised as having notional ideal points in the relevant space, and it seems plausible to suppose that citizens will show support for an option if it is close enough to their ideal point, and not show support for options that are not close enough. We shall formulate this voter calculus in the most direct and straightforward way. Each citizen, i, is conceptualised as having some ideal point, Y_i, in the expressive domain Y; and i will vote for candidate I only if I occupies a point in the expressive domain no further from Y_i than some threshold distance,[8] k.

The second issue relates to indifference. Suppose that two candidates adopt positions within distance k of Y_i: then it seems natural within the expressive account to say that i will support the candidate closer to her ideal, and

that candidates equi-distant from Y_i will be supported with equal probability. There is no reason to suppose that voters who are indifferent between candidates within the support threshold will refrain from voting: they simply have equal reasons for supporting either candidate, and will choose randomly just as the sun-bather who is equi-distant from two ice-cream sellers but quite close to both will choose randomly, rather than – like Buridan's ass – fail to choose at all.

Note that this formulation carries some direct and striking implications. Most obviously, some citizens would vote for a candidate even if that candidate were unopposed. Indeed a candidate's vote might well be larger when unopposed than if she were opposed by a "similar" candidate (although the total number of votes cast might rise with two candidates). More generally, some citizens would be willing to vote in an election even when there is little or no doubt about the result of the election. The act of expressing support for "your" candidate is not necessarily influenced by the expected outcome of the contest, even though, of course, expressive votes will, in aggregate, determine the outcome of the contest. We find these implications eminently reasonable; but more importantly, perhaps, they further underline the distinction between expressive and instrumental voting.

We are now in a position to make some initial progress with the expressive version of two-candidate electoral competition in a single expressive dimension. In any one-dimensional expressive domain, Y, a candidate located at Y_I will defeat a rival located at Y_{II}, iff the number of citizens with ideal points in the interval $(Y_I - k, Y_I + k)$ is greater than the number in the interval $(Y_{II} - k, Y_{II} + k)$, whether these intervals overlap or not. This is so because it is precisely these citizens who will vote on expressive grounds. It is therefore clear that, in the simplest case of a uni-modal (but not necessarily symmetric) distribution of citizen ideal points, and with candidates motivated to win the election while being free to adopt any position in the expressive domain, competitive pressures will force candidates towards the mode of the distribution. However, co-location at the mode itself will only be the competitive equilibrium when the distribution is symmetric around the mode up to neighbourhood of $\pm$ k. More generally, the competitive electoral equilibrium in the one-dimensional, two-candidate case with uni-modal (but not necessarily symmetric) distributions of citizens' ideal points under expressive voting involves a positive turnout with both candidates locating at a point Y^E in a neighbourhood of the mode of the distribution of citizen ideal points such that the number of voters in the range $(Y^E–k, Y^E)$ is equal to the number in the range (Y^E, Y^E+k).

To see that this is the equilibrium, consider the (asymmetric) case illustrated[9] in Figure 2, and consider candidate I deviating from Y^E by moving

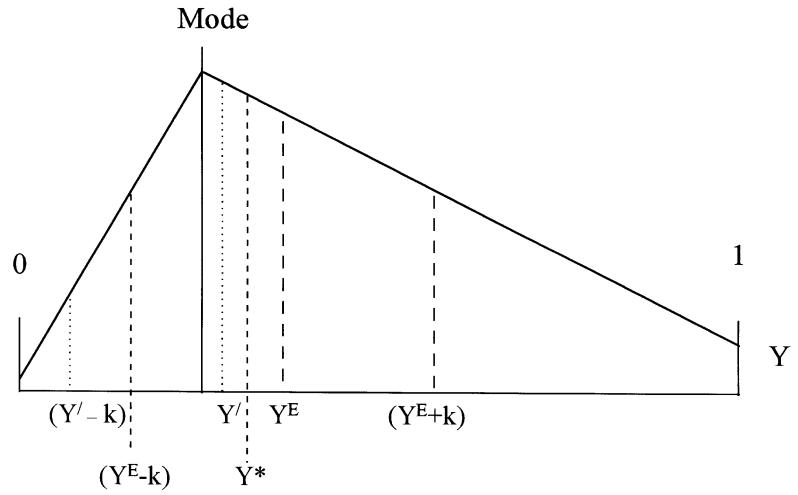

Figure 2. Expressive equilibrium: Uni-modal case.

towards the mode of the distribution to, say, $Y^{/}$. Define Y^{*} as the mid point of the range ($Y^{/}$, Y^{E}). Relative to the situation in which the candidates co-located at Y^{E}, candidate II gains the voters in the range (Y^{*}, Y^{E}), and loses no one; while candidate I gains the voters in the range ($Y^{/}$–k, Y^{E}–k), and loses the voters in the range (Y^{*}, Y^{E}). This must be a losing strategy for I. A similar argument shows that deviation to the right of Y^{E} (away from the mode) will cause the deviating candidate to lose. Essentially, the problem here is that while deviation from co-location at Y^{E} increases the level of support for both candidates, it is bound to do so in a manner that benefits the candidate at Y^{E} more than the deviating candidate.[10] In the present expressive setting, the location of the median citizen's ideal point is strictly irrelevant to the analysis. The point is that the basic idea underlying the median voter result relates to the median of those who actually vote – not the median of those who are enfranchised. The construction of the equilibrium at Y^{E} in the expressive case respects this basic idea – Y^{E} is pulled towards the mode of the distribution of citizens ideal points by the expressive nature of the decision to vote, but Y^{E} is also the median of the set of actual voters ideal points defined over the interval Y^{E}–k, Y^{E}+k).

At first sight, it might seem that this quasi-modal result does little to undermine the standard, instrumental, median voter analysis – after all, one might suggest, the difference between median and mode is likely to be minor. We would respond to this suggestion in a number of ways. First, we would re-emphasise the shift in domain involved in the move from the instrumental to the expressive account of voting – to be discussed in more detail in Section 5

below. Second, we would repeat that the instrumental account of voting – when extended to incorporate the participation decision – does not actually give rise to the median voter result but rather predicts a zero turnout with co-location at the point that maximises the sum of citizens' utility. It is this set of predictions that should most properly be compared with the predictions of the expressive argument developed here. And this comparison provides sharp contrasts – most obviously in the matter of turnout. The expressive analysis predicts positive participation, with the exact scale of participation determined by k and the distribution of citizen ideal points. But the difference in the matter of turnout is not just a quantitative one. In the instrumental case non-voting results from indifference; while in the expressive case non-voting results from alienation. The instrumental account predicts that the non-voters will be those whose ideal points are relatively close to the candidate positions; while the expressive account predicts that the non-voters will be those whose ideal points are most distant from the candidate positions. This difference provides the conceptual basis for a relatively simple empirical test to distinguish between the two models, though we shall not pursue this empirical issue here.

Third, even leaving participation and the question of the shift of domain on one side, there is still a wide variety of cases in which the predictions based on our expressive analysis may differ significantly from those derived from instrumental analysis either in the standard median voter variant or the more relevant endogenous participation model. The most obvious example relates to the uniform distribution of citizen ideal points. In the uniform distribution case, both instrumental results predict the same unique equilibrium outcome, which has a strong claim to normative desirability. However the expressive argument outlined above predicts no unique equilibrium in this case – *any* pair of candidate locations such that each party locates at least k from either extreme of the distribution will be an equilibrium. In this case, then, there is no implication of candidate convergence and no strongly centrist predicted outcome.[11]

We might also note, in passing, a possible ambiguity in the interpretation of the scale of voter turnout that is particularly clear in the case of the uniform distribution, but is of much more general relevance. While the expressive model predicts positive turnout in equilibrium, it does not maximise turnout. Nor can it be argued that larger turnouts are always to be preferred in the sense that larger turnouts are associated with more efficient outcomes. The extent of turnout will depend, *inter alia*, on the degree of differentiation between candidate platforms, with maximum turnout in the uniform distribution case requiring that the two intervals $(Y_I - k, Y_I + k)$, $(Y_{II} - k, Y_{II} + k)$ do not intersect.

Similar analytic points to those developed for the case of the uniform distribution can be made in the contexts of other multi-modal distributions of citizens' ideal points, where the predictions of our expressive argument may differ quite sharply from those of the instrumental theory. For example, in the symmetric, bi-modal case the instrumental voting model will predict convergence to co-location at the position of the median citizen's ideal point if full participation is assumed, and co-location at the sum-of-utilities maximising position if participation is endogenous. Given symmetry, these two predictions will be substantively identical except in the matter of participation. By contrast, the expressive argument outlined here will predict that no equilibrium may exist. To see why, recall that, in Figure 2, the point Y^E did not maximise the number of voters within a k-neighbourhood. Label the point that does maximise the number of voters within a k-neighbourhood Y^M. In the symmetric, bi-modal case illustrated in Figure 3 we will find an equivalent to Y^E and to Y^M in the neighbourhood of each mode – label them $Y^E{}_1$ $Y^E{}_2$ $Y^M{}_1 Y^M{}_2$ respectively. Now, it is clear that a candidate locating at, say, $Y^M{}_1$ can be defeated by a rival locating at $Y^E{}_1$; but equally that a candidate locating at $Y^E{}_1$ can be defeated by a rival locating at $Y^M{}_2$. In short, no location is secure against both local competition and competition close to the other mode – except in the special case where we have sufficient local symmetry around each mode, in which case equilibria will exist and involve each candidate locating at one or other mode. This argument generalises to the multi-modal case. In order for an equilibrium to exist we will require *either* a dominant mode – in which case equilibrium will be unique and directly analogous to the case discussed in the uni-modal case – *or* sufficient local symmetry around relevant modes, in which case there will be multiple equilibria similar to the case of the uniform distribution. We do not take the potential non-existence of equilibrium to be a major problem here since we see no reason to suppose that multi-modal distributions lacking a dominant mode (or local symmetry) are particularly plausible in this context. Our point is rather that both the analytic structure and the empirical location of equilibrium under the expressive argument differ sharply from those derived under instrumental voting, and that these differences become particularly marked once we depart from the uni-modal case.

4. Expressive voting in two dimensions

We now turn to the expressive account of voting in the two-dimensional case. Again, we would stress that the distinction between the instrumental and expressive cases operates at two distinct levels: at the level of the specification of the political domain, and at the level of the more detailed analysis

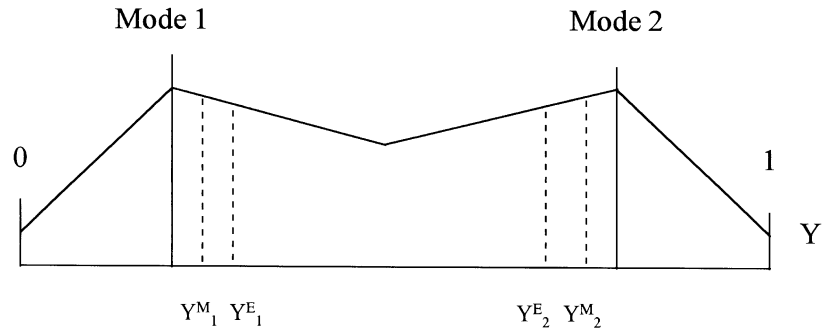

Figure 3. Expressive equilibrium: Bi-modal symmetric case.

of voting and equilibrium within a domain. Although the expressive domain will, in general, differ from the instrumental domain, there is nothing in the expressive account that makes the one-dimensional case particularly salient, so that the move to multi-dimensionality is just as important to the expressive argument as it is for the instrumental argument. Figure 4 presents the basic structure of the two-dimensional, three-citizen, two-candidate model; we identify the circles marked as d_k, e_k and f_k as signifying the range of expressive support associated with citizens D, E and F respectively. Thus, in a natural generalisation of the discussion of the one dimensional case, a citizen will support a candidate only if that candidate's position lies within a radius of k from the citizen's ideal point. If both candidates locate within the relevant radius, the citizen will vote for the candidate closer to her ideal point.

One immediate implication of this formulation is that *global* cycling is not a possible outcome. Global cycling involves the idea that a sequence of majority votes between pairs of candidates can lead to any point in the relevant policy space being majority preferred in the final vote. But in the expressive case it is clear that no location which lies outside the union of the citizens' k-regions can ever gain the support of even one voter. To put the same point more positively, the only candidate locations that can ever receive positive support, and so be potentially electable, lie within the union of the k-regions: so, no location outside of this union will ever be adopted by a candidate seeking election.

In Figure 4a we illustrate the possibility of equilibrium. Here citizen D plays a pivotal role since no coalition of two (or more) voters can form unless she is included. This special role grants D the effective power to ensure an equilibrium. To see this, first simply observe that a candidate located at D can not be defeated (since a rival can, at best, secure one vote against D by locating within either e_k or f_k). The best response to D is therefore one that

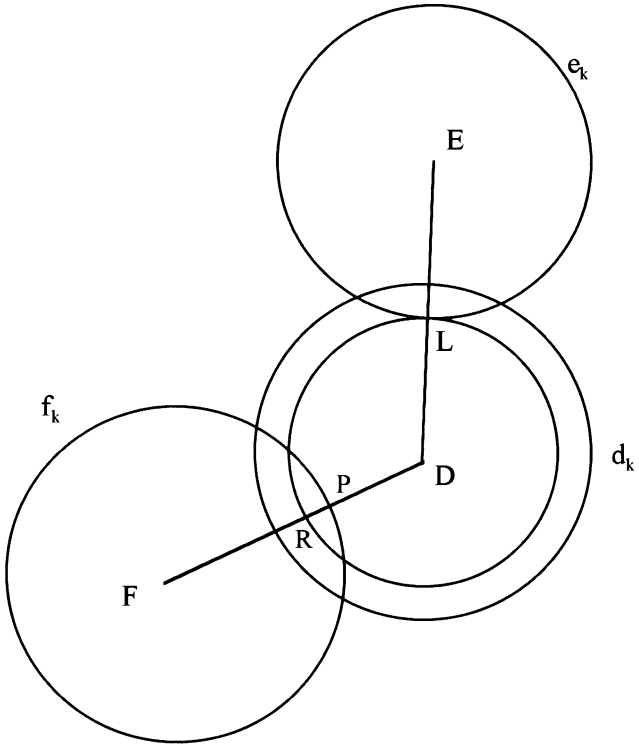

Figure 4a. Expressive voting with a pivotal individual.

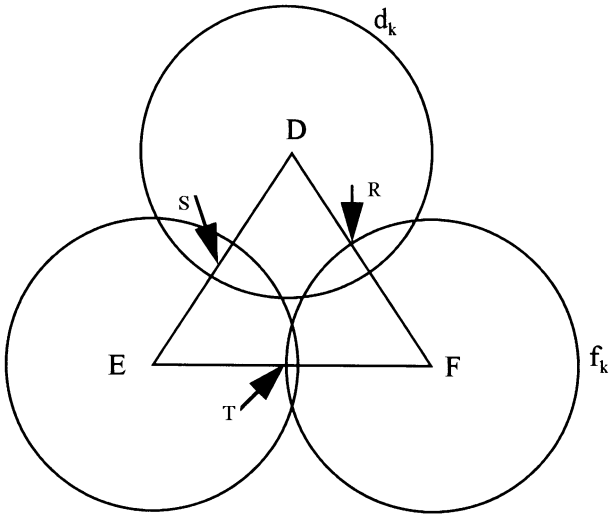

Figure 4b. Expressive voting without a pivotal individual.

ensures a tie against D, and can not itself be beaten by any location. One such possibility is for the second candidate also to locate at D – so that co-location at D is an equilibrium. But further possibilities exist. In the case illustrated, F is closer to D than is E. Consider the point P as a possible best response to D, where P is defined as the intersection of FD and f_k. A candidate locating at P against a rival at D will tie, since she will attract the vote of F. Furthermore P can not be beaten by any other location since it is impossible to choose a point that will attract the votes of both D and F against a rival located at P, and it is also impossible to build a coalition of D and E against the point P, since any point that will gain the support of E must be further from D than is P. Thus P is a best response to D. This argument can be extended to show that all points on the line segment PR (defined as the segment of PF that lies closer to D than does L) are best responses to D and to each other. Location at any point in this line segment provides an unbeatable platform and one that ties against D. Thus equilibria exist in this case whenever the two candidates adopt a pair of locations drawn from the point D and the line segment PR.

But this is very much a special case. A somewhat more general perspective can be gained from Figure 4b, in which no individual citizen holds a distinctive pivotal position. Here we would argue that while in general there may be no unbeatable location, and hence no equilibrium, cycling will be limited to the set of locations defined as the union of the intersections between k-regions. The argument here is only slightly more involved. First, it is clear that any point outside of this set can be majority defeated by a suitably chosen point within the set – for example the point F can be majority defeated by any point in the intersection of e_k and d_k (such as S). Second, consider any point in the intersection of any two k-regions – say e_k and d_k. It is clear that any point in this intersection that does not lie on the line ED will be majority dominated by appropriately chosen points within the same intersection and lying on the line ED. Third, any such point – say S – will either be unbeatable (and hence a potential co-location equilibrium) or it will be majority defeated by points which create a new coalition – for example S may be defeated by at least one of T and R. The circumstance in which S is unbeatable is that S is both closer to D than is R, and closer to E than is T. This circumstance essentially identifies D and E as a pivotal coalition in a manner analogous to the pivotal position of D in Figure 4a. What is certainly true is that no point within the union of intersections of k-regions can be majority defeated by any point outside that set, and this is sufficient to place a limit on the extent of cycling.

This three-citizen example is of rather limited interest – but the general idea that expressive voting might be expected to result in what might be termed “limited stability” with candidates constrained by the process of electoral

competition to adopt positions within a defined neighbourhood is suggestive of a more general result. Figure 5 depicts a multi-citizen, two-dimensional, two-candidate case. We depict the distribution of ideal points by means of contour lines which trace out the locus of points with identical numbers of citizen ideal points. The case illustrated involves a uni-modal distribution, with the mode located at M. Now, any candidate position such as Y_I will define a circle of radius k such that all citizens within that circle will vote, and will vote for candidate I unless the rival candidate offers a position closer to their ideal point. There exists some point T such that the k-circle centred at T contains more citizen ideal points than any other k-circle. If the distribution is locally symmetric around the mode, T will be located at M; more generally, T will simply lie in a relevant neighbourhood of M.

In the case of symmetry around the mode, co-location at the mode will represent a unique and stable political equilibrium. In the asymmetric case, the existence of equilibrium is more problematic. The question is whether there exists some point (analogous to Y^E in Figure 2) between M and T which resists entry on all sides. This is very demanding – requiring as it does that the k-circle centred at the relevant point be such that each diameter of the circle partitions the set of citizen-voters included in the circle into two equal sub-sets. Indeed, the condition is strongly reminiscent of the condition required for the existence of equilibrium in the standard treatment of the multi-dimensional case with compulsory instrumental voters.[12] And this is not surprising since, as we noted in the one dimensional case, any equilibrium must lie at the ideal point of the voter who is the median voter within the set of citizens who actually vote. However, there is a crucial difference here. Although no equilibrium may exist, the range of locations which may be adopted by rational candidates is severely limited. Any point too far removed from the mode (where "too far" is defined in terms of k) is ruled out. "Limited stability" – that is, convergence on a neighbourhood with instability within that neighbourhood – seems to characterise the expressive account of electoral competition in at least many cases of interest.

5. The domain of politics

As we have stressed, the most basic difference between the expressive and instrumental accounts of voting is that the domains of the models differ. In the instrumental model, the political domain reflects the outputs of the political process: politics is conceived as operating within a space that is defined by policy parameters. In the expressive model, the political domain may not be directly related to the policy outcomes of the political process, and certainly will not be restricted to the set of policy parameters. Citizen-voters

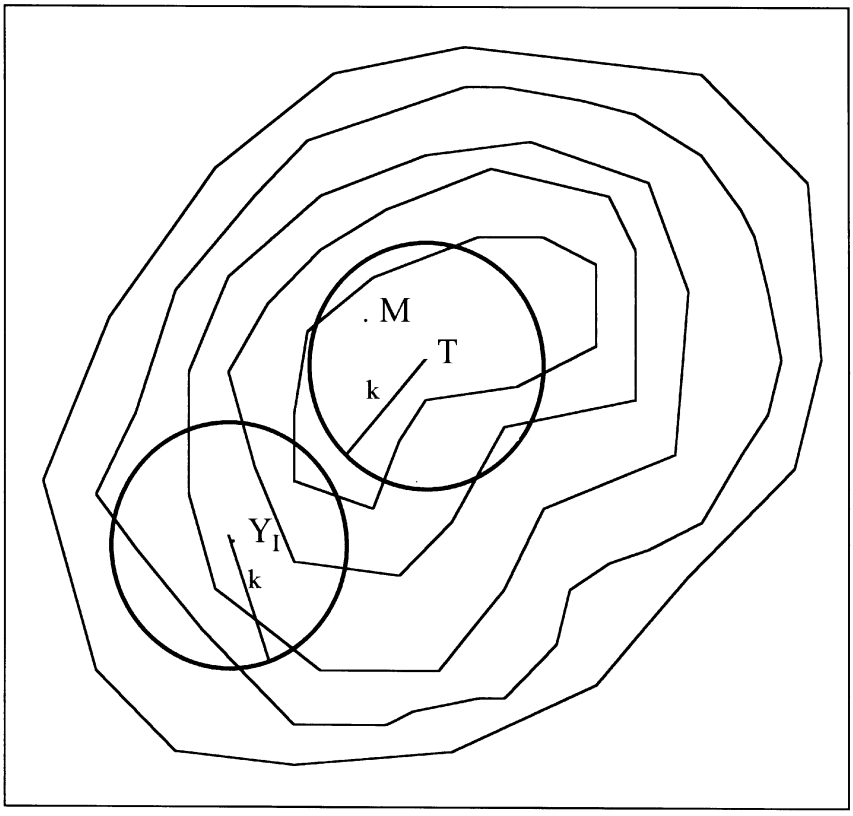

Figure 5. Expressive voting in two dimensions.

may express their support for any observable characteristic (say, general ideology or moral character) and may be very much influenced by a candidate's rhetorical or presentational skills.

While it is easy to see that the expressive domain is less restrictive than the instrumental domain, and relatively easy to outline the general idea of an expressive consideration as one that engages the individual citizen in an act of identifying with a particular cause or characteristic, it is much more difficult to be precise about the nature of expressive considerations.[13] This difficulty is particularly acute for economists who are used to thinking of individuals in terms of their interests modelled via a standard utility function, since expressive considerations engage with an individual in ways that need not bear on their interests.[14] And even where expressive concerns do bear on interests, the relationship may be neither direct nor harmonious. For example, imagine a citizen facing an election in which the most prominent issue raises national-

istic passions – as might be in the case of the independence of Scotland from Great Britain, or the political integration of Great Britain into Europe. Any particular citizen may be able to form a view about the impact of alternative policies on their instrumental interests, but may also identify expressively with one or other side of the debate. In such cases, there seems no reason to suppose that instrumental and expressive concerns will pull in the same direction. In any case, we would argue that it would be entirely rational for individuals to vote their expressive concerns, regardless of their instrumental interests.

The possible mis-match between expressive concerns and interests raises obvious normative concern. If voting is driven by expressive considerations, can there be any assurance that political outcomes will serve the interests of citizens? A detailed examination of this question is beyond the scope of this paper, but we would stress just one relevant point. The normative properties of a political decision making system are a function of both the structure of that system and the political inputs. Recognising that at least some of the inputs to the democratic process are expressive in nature provides an alternative basis for analysing and understanding the role of political structures. Structures that work well in normative terms on the assumption of instrumental political action might perform poorly in the context of expressive voting, and *vice versa*. An example involves the comparison of direct and representative democracy.[15] If all voting is instrumental in nature, it is a commonplace that direct democracy carries a clear normative advantage over representative democracy. The direct aggregation of preferences on a single issue involves problems – as is clear from the Arrow impossibility theorem – but these problems are not avoided by representative democracy and the additional principal-agent problem is introduced. In this framework, direct democracy is the standard against which other procedures may be judged, and representative democracy is adopted on the grounds that the transactions cost, or other costs, of direct democracy are too high. But the move to the expressive account of voting suggests that direct democracy may induce voting behaviour that is not tied to interests – in our example, citizens may vote their nationalist passions instead of their interests and so bring about an outcome that all would prefer to avoid. In such circumstances representative democracy might outperform direct democracy. A small number of representatives may have good reason to vote in the interests of citizens, and when individual citizens vote periodically for their representatives, their expressive concerns may be better correlated with their interests than if they were to vote on single issues. We do not claim that this is necessarily so, but that it is at least a serious possibility. The recognition of expressive voting, and of the expressive

domain of politics, changes the lens through which we see questions of normative political theory and, in particular, questions of institutional design.[16]

6. A more general perspective

We have emphasised the contrast between the expressive and instrumental accounts of voting. But this strategy runs the risk of being too successful – of giving the impression that the two approaches are best seen as pure substitutes offering mutually exclusive accounts of voting behaviour. But things need not be viewed this way. The expressive and instrumental accounts can be seen to offer different but fundamentally compatible perspectives on voting behaviour – each picking out a potentially important aspect of electoral politics. In this section we try to be a little more precise about this compatibility and the way in which we would see instrumental and expressive considerations working together to determine voting behaviour and electoral outcomes in a more general model.

In sketching an approach to such a model, the first and most basic point to stress is that voters are rational: whether they vote instrumentally or expressively in any particular situation, they do so as a rational response to that situation. There is no *a priori* categorisation into "expressives" and "instrumentals"[17] – these categories emerge as a part of the overall political equilibrium. We might think of citizens as endogenously dividing into a set who are most appropriately viewed as instrumentals, and a set who are most appropriately viewed as expressives. Political parties or individual candidates are faced with the prospect of competing both in the domain of instrumental outcomes and in the domain of expressive concerns. Our earlier discussion allows us to speculate a little on what such a structure might look like. In what follows, we shall limit attention to the two candidate case.

The basic problems to be confronted in constructing a more general model may be conceived in terms of the relationship between the instrumental and expressive domains. This relationship has two basic components – one relating to citizens and the other relating to candidates. As far as individual citizens are concerned the relationship may be roughly conceived as the degree of (positive or negative) correlation between instrumental preferences and expressive considerations. There are two ways in which such a correlation may arise. The first, and most direct, is the case in which "policies" are not only the subject of instrumental evaluation, but also an important subject of expressive concern. In this case the possibility of correlation is clear – in the limit (where policies are the *only* subject of expressive concern) an individual citizen's expressive concerns might mesh perfectly with her instrumental interests. If this were true for all citizens, not only would the instrumental and

expressive domains be identical, but the distribution of instrumentally ideal points would exactly match the distribution of expressively ideal points.

The second manner in which a correlation between instrumental and expressive concerns might arise operates indirectly via candidates. In expressing support for a candidate I might be motivated by a specific characteristic or attribute of that individual, but that characteristic or attribute might be correlated with that candidate's support for a particular policy. To the extent that my expressive calculus picks out candidates who tend to support my instrumentally preferred policies, the relevant (positive) correlation may arise.

This indirect route to a correlation between instrumental and expressive concerns at the individual level points to the second component of the relationship between the expressive and the instrumental – that associated with political candidates. If electoral politics operates in both instrumental and expressive domains, it is clear that politicians must be seen as holding positions in both domains. The question then is the extent to which candidates are able to adjust a position in one domain *given* a position in the other. In one extreme case there is a one-to-one relationship between positions in the instrumental domain and positions in the expressive domain – so that either is a perfect indicator of the other. At the opposite extreme, the two domains are entirely unrelated in the sense that a candidate commited to any particular position in one domain is still free to commit to any position in the other. More generally, there will be some trade-off between expressive and instrumental positions, so that a position adopted in one domain will restrict the choice of position in the other, and any shift of position in one domain may carry implications in the other domain.

With these ideas in mind, we offer a discussion of two relatively straightforward special cases: the limiting case in which the expressive and instrumental domains are identical with strong links between domains for both citizens and candidates; and the opposite extreme case in which the expressive and instrumental domains are essentially independent of each other.

6.1. *The "perfect correlation" case*

We begin with the simplest case of a single policy dimension which is both instrumentally and expressively salient. We further assume that each citizen's instrumentally ideal point is also her expressively ideal point, and that all candidates are fully defined by their policy position. In this framework, an obvious starting point for discussion is provided by the idea that while there will always be expressive voters, there may be no instrumental voters in equilibrium. If candidates position themselves centrally, those citizens with the most extreme (instrumental) ideal points will be the most likely to endogenously adopt instrumental criteria in their voting decisions, while those citizens

with more moderate (expressive) ideal points will adopt expressive criteria. On the one hand the extremists have most at stake in the instrumental dimension, while on the other hand they have less opportunity to vote expressively. The opposite is true of the centrist citizen. This raises the possibility that the purely expressive equilibria may carry over as equilibria of the more general model.

Recall that under purely expressive voting co-location equilibria are almost always available, and that such an outcome ensures that there are no instrumental voters. When will a co-location expressive equilibrium be an equilibrium of the more general model? The answer to this question seems to depend, *inter alia*, on symmetry. In uni-modal and symmetric cases, the co-location equilibrium at the mode of the distribution persists when instrumental and expressive considerations are both relevant. To see why, consider the possibility of one candidate departing from the modal policy – imagine a move to the right, for example. Such a move must lead to a loss of expressive voters relative to the rival candidate but, in opening up a gap between the candidates, it also makes possible the entry of instrumental voters. However, given symmetry, any instrumental voters will be drawn mostly from the left of the distribution and so will support the modal candidate. Instrumental and expressive considerations work together to support the co-location equilibrium in this case.

Now consider the case of the uniform distribution of ideal points and recall that, in this case there are many co-location equilibria under purely expressive voting, as well as many which do not involve co-location. When instrumental considerations are added in, most of these potential equilibria are deleted and co-location at the mid-point, or symmetric location around the mid-point, is rendered more salient. To see why, consider first co-location at a point to the right of the mid-point. This can not be an equilibrium since each candidate will face an instrumental incentive to move toward the mid point. Such a move would leave the two candidates level in terms of expressive voters (this would be a non-co-location equilibrium under purely expressive voting) but would encourage the entry of instrumental voters, and such instrumental voters would be predominantly on the left and so would support the moving candidate. The same logic rules out asymmetric equilibria involving distinct candidate positions. The point is that since any potential equilibrium involving distinct candidate positions will involve equal expressive support for each candidate, it must also involve equal instrumental support for each candidate: and this will only be the case if the mid-point between the candidate positions is sufficiently close to the mid point of the distribution. In this way, the introduction of instrumental voters in this case acts as a sort of equi-

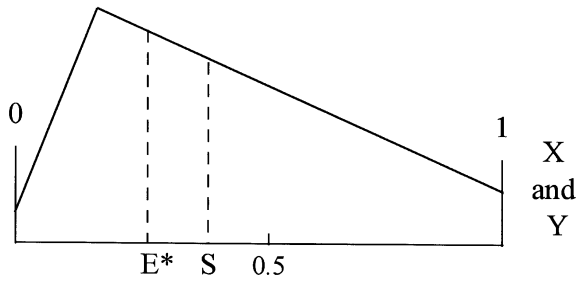

Figure 6. Mixed expressive/instrumental voting.

librium selection device, ruling out the possibility of almost all asymmetric equilibria.

But the argument changes substantially when we consider an asymmetric, uni-modal distribution of ideal points, as illustrated in Figure 6. Let E^* indicate the unique co-location equilibrium under purely expressive voting. Now, consider the best response to E^* when both instrumental and expressive considerations are relevant. Clearly, co-location at E^* would ensure a tie with no instrumentals voting, and this may be the best available option – and if it is E^* remains an equilibrium. But it may now be possible for the candidate to do better by locating at a point such as S, to the right of E^*. To see why, notice that the asymmetry in the distribution of ideal points is such that, in this case, the opening up of the gap between candidates located at E^* and S will generate more instrumental votes on the right (and therefore for the candidate at S) than on the left. So, although positioning at S will cause the candidate to gain fewer expressive votes than her rival, it will also cause that candidate to gain more instrumental votes than her rival. The net effect may go either way depending on the details of the distribution of ideal points and of instrumental demands. But of course, if S is a winning strategy against E^*, the choice of E^* by either candidate can not be part of an equilibrium. Clearly, co-location at E^* will not be an equilibrium in such a case. Here, then, instrumental and expressive considerations pull in opposite directions.[18]

Indeed, there may be no pure strategy equilibria at all in such a case. Since any co-location equilibrium must involve only expressive voting, and E^* was the unique purely expressive co-location equilibrium, there can be no co-location equilibrium in the mixed instrumental/expressive model. To see that there may be no equilibrium involving distinct candidate positions, consider the best response the S in Figure 6. It will always be possible to locate to the left of S by an arbitrarily small distance, and such a location will always imply a majority of the expressive voters. Since it will also imply a vanishingly small number of instrumental voters, this will be a winning strategy.

This essentially expressive argument pushes both parties toward E^* but, as we have seen, E^* may be beaten by S. In this case the tension between instrumental and expressive considerations induces a form of instability.[19]

6.2. *The "independence" case*

We now turn briefly to what might be thought of as the opposite extreme case – the case in which the instrumental and expressive domains are essentially unrelated. For each citizen there are distinct dimensions of instrumental and expressive concern with no direct or indirect correlation between their ideal points in each domain; and for political candidates there are no cross-domain restrictions in the positions that they may adopt. In this extreme case, the two models of political process might be seen to operate side by side. Policies would be determined in the instrumental domain as analysed by the standard model. While there would also be competition for votes in the expressive domain, this would have no implications for policies. Essentially candidates could adopt the equilibrium expressive position while simultaneously adopting the equilibrium instrumental position. Of course, in the simple case in which this involves co-location in the instrumental domain, all voters will, once again, be expressives, but this will not affect the outcome in the instrumental domain.

6.3. *The middle ground*

Both of these extreme cases are implausible. A major thrust of our discussion has been to emphasis the differences between the expressive and instrumental accounts in terms of their implications for the appropriate conception of the political domain, as well as for the more detailed analysis of voting within that domain. But it is surely just as implausible to suggest that the expressive domain is completely unrelated to matters of policy. Both from the perspective of the citizen-voter and from the perspective of the political candidate, links and trade-offs between expressive and instrumental considerations must be taken as the leading case. We have done no more than sketch some of the ingredients required in a more general model of electoral competition that takes seriously both the expressive and the instrumental aspects of voting behaviour. But we hope that we have done enough to suggest that mixed models of this type offer an interesting and rich set of possibilities. In the more complex world of mixed models, we might imagine political equilibria in which some citizens' electoral behaviour is instrumental, while other citizens vote on expressive grounds; in which candidates attempt to adopt positions in policy space which may not wholly correspond to their expressive image; in which individual candidates may have an important expressive

effect on the electoral success of their party even when they offer no distinctive policy position.[20] These, and other, eminently realistic possibilities are available to rational choice theorists who adopt an account of voting which incorporates an expressive element, while they are denied to rational choice theorists who maintain the strict instrumental line. We see this fact as providing a strong argument for the more detailed exploration of mixed models incorporating an expressive account of voting. It is surely not implausible to suggest that the tension within political parties between expressive and instrumental considerations, and the implications of these tensions for electoral competition are a significant element in, and conceivably the very core of, democratic political process.

7. Finale

The rational actor theory of politics has been largely constructed on the basis of an instrumental account of voting. More recently an alternative account of rational voting has emerged which focuses attention on the expressive nature of voting. In this paper we have attempted to provide an account of some of the core implications of the expressive theory of voting, to set alongside the more standard account of instrumental voting when the participation decision and the decision of how to vote are treated as part of the same overall rational calculus.

We have argued that the standard analysis of instrumental voting with voluntary participation generates implications that jar with relatively standard political intuitions, and specifically with intuitions that are often invoked in connection with the simple median voter theorem. In particular, turnout is predicted to be zero in the equilibrium of a two-candidate election; and even when the policy-packages of candidates diverge so that some citizens will vote, voters will tend to be drawn disproportionately from the political extremes. This is so because, under a thoroughgoing instrumentalism, it will be the most extreme citizens who have most reason to vote. Voting is evidence not of a sense of civic responsibility, but of electoral disequilibrium. Accordingly, the intuition that a reasonably high level of turnout is both reasonable and desirable is severely undermined.

However, this intuition does find a natural home in the expressive account of rational voting where citizens vote to identify themselves with particular positions and to register support for those positions rather than to bring certain policies about. We argue that equilibrium under an expressive account of voting generates predictions of positive turnout with those voting being those most closely associated with the positions adopted by candidates. Equilibrium tends to converge on a defined neighbourhood of the mode of the distribu-

tion of citizens' ideal points while simultaneously satisfying the requirement that it is at the ideal point of the median of those who actually vote. Although equilibrium may not be stable, the threat of *global* instability is removed: political platforms are restricted to a significantly constrained region of the relevant space.

Seen as rivals, the instrumental and expressive accounts of rational voting generate testably different predictions, fit with very different intuitions, and offer different perspectives on questions of institutional design. However, the two accounts do not have to be seen as rivals: they can be seen rather as distinct aspects of a more complex whole. In this paper we have sought to emphasize how and in what ways the aspects are distinct, but we have also tried to suggest how they might be brought together. Clearly, more extensive work on the richer integrative model is called for – and we believe that it is in this direction that the most interesting work on electoral politics will lie.

Notes

1. See Brennan and Lomasky (1993) for more detailed discussion.
2. Although one of us has been active in that debate – Brennan and Lomasky (1985, 1993).
3. Alesina (1988), and Schultz (1996) provide examples addressing the further questions of credibility and the effect of asymmetric information. Brennan and Hamlin (1994) investigate the separation of powers in the context of instrumental voting. Brennan and Hamlin (1997) use the expressive framework to examine political representation.
4. See also the symposium on the economics of voting including papers by Levin and Nalebuff (1995), Tideman (1995), Young (1995) and Myerson (1995).
5. See also Alesina and Rosenthal (1995).
6. Of course, it is the benefit net of costs that is crucial – in what follows we shall assume that costs and benefits are not correlated across individuals, extension to the correlated case raises no major new issues.
7. See, for example, Palfrey (1984), Weber (1992).
8. Our formulation focuses on what might be termed "positive expressive voting" where citizens express approval. "Negative expressive voting" might arise if citizens were motivated to express disapproval of certain positions/candidates. However, disapproval would presumably be directed at candidates adopting positions in the relevant expressive domain that were far removed from the citizen's ideal point and, under most electoral systems, the citizen would be required to express this disapproval by means of a vote for a rival candidate. If that rival has to be closer than some critical distance to the citizen's ideal point in order to be a suitable vehicle for disapproval voting, then it is straightforward to see that our formulation would also capture "negative expressive voting". More complex formulations which account for both positive and negative expressive voting are possible, but we do not pursue them here.
9. Here, and throughout, we use piecewise linear distributions to illustrate our arguments. This is entirely for ease of presentation - nothing in our argument depends on linearity.
10. This argument is somewhat similar to the argument put by Comanor (1976) in the context of the instrumental account of voting where the median and mode do not coincide. The differences from Comanor are, however, more significant than the similarities.

11. Again, the threat of entry of a third candidate will affect the analysis, and again we leave this complication on one side.
12. See Enelow and Hinich (1990), Mueller (1989).
13. For a discussion, see Brennan and Lomasky (1993) chapter 3.
14. Of course, it will be possible to incorporate expressive concerns into a formal utility function, but the distinction between instrumental and expressive concerns is not lessened by such a formalism.
15. The link between expressive voting and representative democracy is explored in detail in Brennan and Hamlin (In press).
16. We take up the broader themes of institutional design in the face of non-instrumental behaviour in Brennan and Hamlin (forthcoming).
17. We use these terms rather than "expressive voters" and "instrumental voters" since not all citizens in either set will actually vote. "Expressives" are those citizens whose electoral behaviour is expressive in character, whether they actually vote or nor; and similarly for "instrumentals".
18. This line of argument does not depend on the identical distribution of instrumental and expressive ideal points – indeed the circumstances in which no co-location equilibrium exists will be easier to achieve with different distributions.
19. As noted above, equilibrium may not exist in the purely instrumental model with endogenous participation if the distribution is sufficiently asymmetric. The argument here is different, since it makes essential use of expressive voting, but the general flavour of the result is similar.
20. A recent paper by Harrington and Hess (1996) utilises a framework that we would see as related to that suggested here. They use a two-dimensional spatial model in which one dimension relates to the personal attributes of the candidate while the other relates to a policy variable. Voters are modelled instrumentally (and assumed to vote) but are given preferences such that they care about the candidates personal attributes. Each voter is therefore balancing what we might term an expressive consideration (personal attributes of the candidates) against an instrumental consideration.

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