Issue yield: a model of party strategy in multidimensional space

ABSTRACT

Parties in pluralist democracies face numerous political issues that citizens may be split on, but most models of party competition assume a simple, often one-dimensional structure. We develop a new, inherently multidimensional model of party strategy in which parties compete by emphasizing policy issues. Issue emphasis is determined by two distinct goals: mobilizing the party’s core voters and broadening the support base. Accommodating these goals dissolves the position-valence dichotomy because it requires emphasizing policies that are relatively uncontroversial within the party while at the same time widely supported in the electorate at large. The capacity of an issue to promote both goals is captured by an integrated index labeled “issue yield.” We test a yield-based model on a comparative dataset combining mass surveys and manifesto scores from the 2009 European Election Study. Results of multilevel tobit regressions suggest that issue yield is a powerful indicator of party strategy.
This paper develops a theory of party strategy with multiple issues. The role and use of political issues as assets of electoral competition has been shown by a vast literature, both in terms of their lifecycle and evolution (e.g. Carmines and Stimson 1989) as well as in terms of strategic priming of favorable issues (e.g. Iyengar and Kinder 1987). However, links to the currently most developed and logically structured theory of party competition – Downsian theory – remain weak. To some extent this is understandable, as Downsian theory has framed the inherent multidimensionality of the issue space more as a problem than as a resource for competition: the assumption of a single conflict dimension underlying the median voter theorem (Downs 1957) avoids disequilibria and decision cycles due to multidimensionality (Arrow 1951). Subsequent literature has analyzed the conditions under which the median voter theorem can be extended to multiple dimensions, mostly proving that such conditions are quite demanding, so that a multidimensional view of the issue space is not easily tractable by the theory (see Davis and Hinich 1966; Plott 1967; McKelvey 1986; Ansolabehere and Snyder 2000).

Evading the problem of multidimensionality in political theory obviously does not mean evading it in political practice. In fact, the idea underlying the model developed here is that there are strong reasons why parties – especially parties in a minority position – would actually deemphasize the main conflict dimension by shifting their focus onto specific policy issues.

Downsian theory implies that the strategy for parties in minority positions is positional maneuvering: as a disadvantaged party moves its ideological position towards the median voter, it gains votes and gradually overcomes its minority status. But this strategy is not always feasible. Frequent changes in ideology may not be credible (and often not even perceived by voters: see Adams, Ezrow and Somer-Topcu 2011), and parties often pursue conflicting goals that prevent effective ideological maneuvering (Müller and Strøm 1999), so that the possibilities of the leadership to exploit positional strategies are limited (Grofman 2004). In this case, we cannot expect parties to accept perpetual defeat. We rather expect them to deemphasize the main dimension of conflict, and to stress other, more specific issues, where they enjoy a potential majority position.
This reasoning is indebted to the concept of *heresthetics* introduced by William Riker (1986). In Riker’s theory, the potential disequilibria induced by multidimensionality – though detrimental for efficient decision-making – serve as powerful *resources* that political actors can use to escape an unfavorable equilibrium. In his words, “For a person who expects to lose on some decision, the fundamental heresthetical device is to divide the majority with a new alternative, one the person prefers to the alternative previously expected to win.” (1986, 1). At the same time, however, parties cannot always pursue heresthetical strategies regardless of the larger consequences. Downplaying the main dimension of competition may attract new voters, but it might also jeopardize the party’s traditional identity. The history of electoral socialism in Western Europe is a prominent case in point (cf. Przeworski and Sprague 1986). Overall, then, these arguments suggest that “[t]he effort in all political struggle is to exploit cracks in the opposition while attempting to consolidate one’s own side,” as Schattschneider expressed more than fifty years ago (1960, 67).

Moving from theory to modeling, the question we address is how to determine the *specific choice of issues* that a party will stress in a campaign, in trying to make effective use of heresthetics. The basic mechanism of our model involves the tension between two distributions of preferences on each issue. The first is the distribution *within* the party: parties will emphasize issues that are not divisive internally. The second is the distribution *in the electorate at large*: parties will emphasize issues on which their position is shared by many potential voters. This tension also underlies the well-known duality of *vote-seeking* and *policy-seeking* incentives, pervading the literature from the early formulation in Wittman (1973) over the analysis of party strategy evolution in Kitschelt (1989) to the agent-based model in Laver and Sergenti (2011).

We theorize a solution to this tension by borrowing concepts from the main contender of the positional model, the *valence issue* model. The two cornerstones of the valence model – the existence of *shared goals*, and their *linkage* to specific parties or leaders – can be generalized to positional issues. Even on such issues, policies enjoying widespread *support* but still retaining some degree of *partisanship* would partly assume the fundamental characteristics of valence issues. We
consequently derive a unified view of political issues that subsumes both position and valence by conceptualizing them as extremes of the same *continuum*.

Following this conceptual operation, we move on to examine how, on any positional issue, each policy\(^1\) – characterized in terms of *support* and *partisanship* – presents to each party a specific combination of risks and opportunities in political competition. Four types of policies are identified; among these, one particular type – that of *bridge policies* – is most attractive for party strategy because it includes those policies that provide the opportunity to reach out to new voters without the risk of losing existing support. The combination of risks and opportunities is finally summarized into an integrated index labeled “issue yield.”

The paper is structured as follows. First we review the main conceptual approaches to political issues, i.e. the positional model and the valence model, followed by our unified support-partisanship (SP) model of party strategy. A first empirical test is provided using comprehensive mass survey data from the European Election Study 2009, covering 12 issues for 150 parties from 27 European countries. Our dependent variable, issue emphasis, is measured using party manifesto codings from the Euromanifestos Project 2009. We then construct the issue yield index and estimate its effect on issue emphasis in a three-level mixed effects tobit framework. After discussing the findings, we extend the basic model to reflect strategic incentives specific to multiparty competition. Finally we offer overall conclusions.

**Views of political issues**

In presenting different views on policy issues, it is almost inevitable to start from the Downsian spatial framework. We identify its key feature in its focus on *disagreement over policy alternatives*. The spatial representation is an elegant metaphor for the presence of different voter preferences

\(^1\) For simplicity, we assume a dichotomous representation of political issues, where only two policy positions – briefly *policies* – are defined. See below.
regarding policy on a specific issue. Only if there is a voter distribution on the issue dimension, positional maneuvering as theorized by Downs (1957) makes sense.

The natural term of comparison for the spatial model is the valence framework proposed by Donald Stokes (1963). Stokes suggests that not all political issues can be framed in spatial, divisive terms. Certain policies are rather characterized by general agreement, as they are “positively or negatively valued by the electorate [as a whole]” (373). Such valence issues imply a different mechanism for party competition: parties will not compete by repositioning, but rather by claiming credibility in the achievement of a shared policy goal. Later research has mostly applied this framework to issues such as economic performance or national security, which can hardly be analyzed in positional terms.

Finally, saliency theory (Budge and Farlie 1983; Petrocik 1996; Robertson 1976) can be seen as a third view of political issues, providing an original synthesis of position and valence. It highlights how parties employ selective emphasis on issues: rather than taking position on all issues, parties only focus on issues where they are perceived as particularly credible. They thus

2 Stokes’ contribution borrows from social psychology, and in particular from Kurt Lewin’s (1935) theory of personality. According to Lewin, individual personality develops through the attachment of positive or negative valences to objects (and other individuals) according to their capacity to satisfy (or threaten) imperative needs (which are by definition non-controversial). In Lewin’s words, “the valence of an object usually derives from the fact that the object is a means to the satisfaction of a need, or has indirectly something to do with the satisfaction of a need” (1935, 78).

3 For example Fiorina (1981) – identified by Stokes (1992) as owing to the valence framework – and most recently studies of party competition in the UK (see e.g. Clarke et al. 2009; Green and Hobolt 2008) and beyond (Bélanger and Meguid 2008; Van der Brug 2004).

4 We define positional issues as those with a distribution of policy preferences, regardless of the presence of directional (Rabinowitz and Macdonald 1989) or proximity competition.
attempt to convert a positional into a valence issue by hiding the implied policy trade-off. Leftist parties traditionally emphasize their preference for a larger and better welfare state, but hardly mention the implication of higher taxes; conservative parties often promise lower taxes, not mentioning inevitable reductions of welfare state provisions. Selective emphasis on only one side of a policy trade-off allows parties to frame issues in valence terms (shared goals for the whole community) that are inherently positional, i.e. with clearly defined policy alternatives.

Saliency theory can be thus seen as a first attempt to overcome the categorical separation of position and valence politics. However, the theory still implicitly recognizes a qualitative distinction between the two, which can be surpassed only when a party succeeds in splitting one positional issue into two (e.g., by decoupling taxation and welfare benefits). A general synthesis that subsumes both positional and valence issues is yet to be developed. This is the task we now turn to.

A unified conceptualization of issues

Our point of departure is a suggestion by Donald Stokes, which has received little attention in the literature: “the question whether a given problem poses a position- or valence-issue is a matter to be settled empirically and not on a priori logical grounds” (1963, 373). In other words, we cannot distinguish position and valence issues based on theoretical considerations: in principle, any issue that is strongly divisive in one country or in one year could be completely uncontroversial in another. In the former case, it would be classified as a positional issue, in the latter case as a valence issue.\(^5\)

\(^5\) This conditionality of valence is already apparent in the socio-psychological formulation which inspired Stokes’ contribution (see footnote 2): “The kind (sign) and strength of the valence of an object or event … depends directly upon the momentary condition of the needs of the individual concerned” (Lewin 1935, 78).
We suggest that a criterion for classifying issues, placing both valence and positional issues on the same continuum, is the level of support enjoyed by a particular policy in a specific country at a specific point in time. This implies a reconceptualization of a difference in quality between valence and position as a difference in quantity.

First, consider how this criterion represents “pure” position and valence issues. Imagine we have polled citizens of a country with Likert scales regarding agreement with specific policies. On an idealtypical positional issue such as “Major public services and industries ought to be in state ownership” we could find 50% of respondents on the agreement side. On the other hand, considering a statement such as “The government’s economic policy should pursue development rather than recession,” we could expect something close to a 100% support share, indicating an idealtypical valence issue with virtually no voter distribution over different policy alternatives. Of course the same reasoning applies to policies whose support is close to 0%: in this case the shared goal of the community will be to prevent a policy.

As a second step, consider how the support criterion operationalizes Stokes’ valence concept. If issues can be classified as positional or valence based on the distribution of policy preferences, we have a tool for assessing the empirical nature of each issue, rather than having to assume it theoretically. Issues that we would clearly deem divisive (thus positional) may in fact represent shared goals of a particular political community. As an example, a country with a statist political culture could show – for the above “state ownership” policy – a 95% level of support, indicating that state ownership of major public services and industries is a matter of valence; in this case, competition will be about which is the most credible party for enforcing such a policy.

That this approach can provide insightful and occasionally surprising results is demonstrated in Table 1. Even a statistically conservative measure such as the average of 27 national levels of support for specific policy statements (from all EU member states, studied in the EES Voter Study 2009) shows that while some statements clearly appear as divisive, others are closer to the idealtypical valence pole. And in many individual countries (not shown), several policy statements
enjoy levels of support reaching and exceeding 90%. For example, a statement such as “Income and wealth should be redistributed towards ordinary people” has 75% support in France and Italy, 92% in Slovenia, but only 49% in Denmark, where it is a clearly divisive issue. In general, national policy support shows large cross-country and cross-issue variation.

[Table 1 about here]

These empirical patterns demonstrate that the criterion of level of support does not only encompass the definition of both positional and valence issues; it also defines them as opposite endpoints of a continuum reflecting all possible combinations. The main conclusion we draw from our descriptive analysis is that Stokes’ suggestion is not only theoretically stimulating but also empirically sound: there are issues that, despite their potentially divisive nature, may reach very high levels of support, defining them as goals that are largely shared; they are at least as close to the valence pole as to the positional pole of the continuum. We will now see how such issues have interesting properties that make them appealing for party strategy.

**Bridge policies, policy support, and partisanship**

As an issue gets closer to the valence pole in terms of support, the dynamics of positional competition gradually give way to the typical mechanisms of valence competition. Parties should increasingly avoid emphasizing different positions on the issue and instead try to claim superior credibility concerning the policy that is supported by most voters. On the other hand, such hybrid issues retain important positional characteristics. Especially in terms of credibility, they may still show a clearly partisan character. Despite high levels of support, it is quite clear that – referring to the examples in Table 1 – a leftist party would be generally considered more credible on the rights of women, while a rightist party could supposedly claim higher credibility on the “harsher sentences” policy.
The ambiguity between a shared goal and a partisan concern makes hybrid policies appealing for party strategy. They can act as “bridges” between a party and voters of other parties, which is why we label them “bridge policies.” Bridge policies allow parties to reach new voters, focusing on widely shared goals; but – still being associated to the party’s identity – they minimize the risk of alienating the existing party base. In other words, bridge policies allow parties to reconcile the tension between the two key preference distributions, i.e. the distributions within the party and in the electorate at large. This is the general intuition that underlies our model of party strategy.

When thinking of party strategy in terms of issue emphasis, our model implies that parties focus their campaign activity on policies that 1) are positively associated with the party (in both a substantive and a statistical sense); and 2) enjoy a general level of support that is higher than the party’s standing level of support. The latter characteristic expresses the bridging capacity of the policy, i.e. the opportunity offered to the party for gaining new voters by priming the issue. The former characteristic reflects the goal of claiming policy credibility: we assume that a positive association between a policy and a party (supporters of the policy also support the party) is in large part an indicator of the party’s credibility on the policy. Also, such an association is a measure of the (absence of) risk the party would run in emphasizing the issue: if a policy is widely supported within the party, risk is minimal; if the association is less strong (many party supporters do not support the policy) there is a higher risk of losing voters when making the issue salient.

Remember that we defined a policy as one side of a simplified dichotomous issue. Despite the reference to saliency theory, however, the bridge function does not require issues to be split into a “desirable” and a “non-desirable” side (and no trade-off to be hidden). Our model does rest on the assumption that voters are sensitive to priming effects, but it is agnostic as to whether parties campaign by using issue emphasis (mentioning an issue in general) or a more specific policy emphasis, and we will use the terms interchangeably.
We suggest that policies can be classified regarding these two properties by using three simple measures, which can be calculated from virtually all existing individual-level survey datasets that contain questions about policy issues and party choice:

\[ i = \text{proportion of the electorate supporting a given policy}; \]
\[ p = \text{proportion of the electorate supporting a given party}; \]
\[ f = \text{proportion of the electorate supporting both the policy and the party}. \]

For the bridging capacity of a policy we simply propose the above-mentioned indicator of overall level of support (denoted by \( i \)). Regarding party-policy association, we introduce a slightly more complex measure, which is based on a cross-tabulation of support for party and policy. Such a tabulation is presented in Table 2.\(^7\) The example shows a party system where a policy proposal of “immigrants should be required to adapt to the customs of our country” has 75% support (\( i=0.75 \)). The association of this policy with “The Right” (a party supported by 55% of voters, so that \( p=0.55 \)) is clear from the comparison of observed and expected relative frequencies (the latter are in parentheses). If there were no association between parties and the policy, we should observe 41% of respondents supporting “The Right” and the policy (with 14% supporting “The Right” but not the policy). Instead, we observe 50% in the top left cell (\( f=0.50 \)), which is nine percentage points higher than the expected frequency. The policy is oversupported within “The Right.” Over- or undersupport can be expressed in terms of generic differential support:

\[ d = \text{differential support for a policy within a party (partisanship of the issue)}. \]

This can be simply calculated as the difference between the observed relative frequency in the top left cell (\( f \)) and the expected relative frequency: \( d = f - ip \). In this case, \( d = 0.09 \).

\(^7\) More complicated measures could account for the full distribution of preferences on the issue rather than its dichotomized synthesis. However, such measures are not required for conceptual reasoning, and they would increase complexity without providing substantially richer insights.
The table also provides information about the opposite policy on the same issue: disagreement with the “immigrants should adapt” statement, which is obviously undersupported within “The Right” (the observed frequency is .05 compared to an expected frequency of .14, so that \( d = -0.09 \)).

[Table 2 about here]

Examining one party at a time, \( d \) and \( i \) can be computed for all policy pairs associated to each issue statement included in a voter survey, yielding different combinations of overall level of support in the electorate and differential support within the party. Using \( d \) and \( i \) as coordinates, policies can thus be plotted in a party-specific diagram which we call the support-partisanship (SP) diagram.

An example SP diagram is presented in Figure 1: it is based on actual data from twelve policy statements included in the 2009 EES Voter Study for the Spanish Partido Popular. For each statement, we present the two simplified alternatives of agreement or disagreement, each of which may be emphasized in a campaign. Each policy is represented by a dot whose coordinates are defined by its levels of partisanship \( d \) (x axis) and support \( i \) (y axis). While partisanship is obviously party-dependent (leading to a separate diagram for each party), overall policy support is party-independent.

The diagram also contains a gray diamond expressing logical constraints: given the share of respondents that support a party, policy dots cannot lie outside the inner region delimited by the diamond, whose borders can be identified through the method of bounds. It is also worth noting

8 We deliberately use \( d \) for the x-axis rather than \( p \), because the latter would not be independent of \( i \), which is depicted on the y-axis.

9 The method of bounds (Duncan and Davis 1953; King 1997; Grofman 2010) expresses how, in a 2x2 crosstabulation, values (proportions) in a specific cell are constrained to a specific range smaller than \([0,1]\), depending on the row and column marginals. If we use the above notation and
that, given the equations of the four borders (see Appendix), the $y$ coordinate of the right corner of the diamond corresponds to $p$, while the $y$ coordinate of the left corner corresponds to $1 - p$.

**[Figure 1 about here]**

Such a visual representation is particularly instructive when we partition the diamond into the four quadrants defined by the vertical axis ($x = 0$) and a horizontal line drawn at $y = p$. The vertical line distinguishes between policies that are *under*- or *oversupported* within the party electorate (and therefore positively or negatively associated with it). The horizontal line distinguishes policies in terms of the *size* of their support base. Above the line policy support is higher than party support, below the line it is lower.

Combining these two criteria yields a typology of policies in terms of risks and opportunities for a party. The typology is visually expressed by the four quadrants of the diagram:

---

Additionally define $b = \frac{f}{p}$ (i.e., the propensity of The Right supporters to also support the policy), the expressions summarized by King (1997, 79) yield the following constraints for $b$:

$$b \in \left[ \max \left( 0, \frac{i - (1 - p)}{p} \right), \min \left( \frac{i}{p}, 1 \right) \right]$$

which, when multiplied by $p$, yields constraints for $f$:

$$f \in \left[ \max (0, i - (1 - p)), \min (i, p) \right]$$

Given that $d = f - ip$, constraints for dots representing policies in the diagram can be derived (see Appendix), and these constraints still depend only on $p$ (fixed in any single diagram) and $i$ (which varies on the $y$ axis: for each level of support we obtain minimum and maximum possible values, identified by the diamond).

10 In a two-party system, the left corner would thus represent the level of support of the party’s opponent. In a multi-party system, it is the combined support of all other parties.
I (top right): “bridge policies.” Policies that enjoy larger support than the existing party base, and that are also positively associated with the party (they are over-supported within the party). These policies offer the opportunity to gain votes without losing many present supporters: they may serve as “bridges” between the party and potential new voters. Such policies are particularly appealing for election campaigns and should receive the most emphasis.

II (top left): “venture policies.” Policies with an overall support that is larger than the existing party base, but that are negatively associated with the party (they are under-supported within the party). Such policies still provide an opportunity to gain votes, but with a high risk of losing a significant share of the party base. Parties that emphasize such issues go on a “venture” with uncertain prospects. Average emphasis should thus be lower than for bridge policies.11

III (bottom left): “dead-end policies.” Policies that have less support than the party and are negatively associated with the party base. Emphasizing such policies would only damage the reputation of a party without particular benefits. To avoid the “dead-end” of such policies, parties should hardly emphasize them in their election campaigns.

IV (bottom right): “pet policies.” Policies that enjoy less support than the party but are positively associated with it. An emphasis on such policies would not win over new voters (and would perhaps alienate some present supporters), but could play a role in reaffirming the party’s identity. Such policies may serve to “pet” the party faithful. Average emphasis should thus be lower than for bridge policies but higher than for dead-end policies.

To see the real-world implications of this typology, consider the Spanish Partido Popular already presented in Figure 1. The issues lying in the middle of the “bridge” quadrant (expected to

11 Note that typical valence issues lie on the borderline between bridge policies and venture policies. The diagram thus highlights the inherently non-partisan nature of valence issues. The two upper borders of the diamond converge at 100%, for clear statistical reasons: if all respondents support an issue, there cannot be any statistical association between the issue and any party.
receive highest emphasis) coincide with some of the main policy orientations traditionally associated with the PP: traditional gender roles (“woman cut work for family +”), but most importantly market-oriented economic policies (“private enterprise best +” and “state own major public services –”). Such policies had a major role in the political success of PP leader Aznar (in office between 1996 and 2004) and were essentially kept intact even by Socialist successor Zapatero (who chose to mark discontinuity on civil rights issues, rather than on the economy).

Conservative attitudes on abortion and gay marriage (the latter legalized by Socialist Zapatero in 2005) lie in the “pet” quadrant for the PP: they might pet PP party loyals, but they are minoritarian in the Spanish society as a whole, with support even lower than that of the PP. Paradoxically, a vote-maximizing strategy for the PP might be to attempt a U-turn on such policies (embracing liberal positions on civil rights), towards the majority of Spanish voters: but this would clearly exemplify a “venture” policy (top left quadrant), attracting new voters while jeopardizing its existing electorate.

**Data, measurement and methods**

To test our general hypothesis of differences in policy emphasis between the four policy types, we need two parallel data sources: mass survey data that measure the distribution of policy support and party preference, and party data that measure policy emphasis. Since we propose a highly general theory of party competition, reasonably strong evidence supporting the theory would be that the core mechanism operates under a range of diverse conditions. Our aim is therefore to test the model for as many countries, issues, parties and voters as possible. An appealing comparative dataset has been collected by the PIREDEU project (http://www.piredeu.eu) at the occasion of the 2009 elections to the European Parliament (EP). Although the EP is the supranational legislature of the European Union (EU), its elections are organized on a strictly national basis and contested by the regular national parties. This allows us to study electoral competition in all 27 EU member states using data for 150 parties and more than 27,000 voters.
PIREDEU’s voter component is the European Election Study 2009 (EES), a representative mass survey consisting of 27 virtually identical national surveys. These data serve to construct our independent variables. The partisan dimension is measured by vote intention in national elections. The support dimension is measured by responses to a battery of 12 Likert items, each corresponding to one of the policy statements summarized in Figure 1. These 12 items were asked consistently in all EU member states, making the EES a superior choice to other large-scale comparative surveys. The same advantage applies to the party component of our study, the Euromanifestos Project 2009, which serves to measure our dependent variable. This dataset contains codings of the manifestos presented by the national parties for the EP elections. From these texts, “quasi-sentences” are extracted and allocated to a large number of political issues. Our indicator of emphasis is the standard measure widely used and verified in empirical research: the percentage of quasi-sentences of the overall manifesto. This measure is particularly appealing for our purpose because party manifestos are strategic documents that provide “direct evidence of the declared salience of issues for political parties in electoral competition.” (Marks et al. 2007, 27).

A general issue about our data concerns temporal structure: In the strict sense, we use temporally successive information (support/partisanship measured in the voter survey) to estimate a temporally antecedent variable (issue emphasis in the manifestos, published before the elections). It is therefore important to note that our aim is not to predict changes of party strategy in reaction to

---

12 The item reads: “And if there was a general election tomorrow, which party would you vote for?”

13 Full question wordings are in the Appendix. The standard five-point response scales were dichotomized with neutral values coded .5. This results in a conservative estimate of bridge issues because (dis)agreement is shrunk toward the midpoint.

14 The strategic nature of party manifestos also has a downside, namely that they do not provide “information that is tactically unimportant or an electoral liability” (Marks et al. 2007, 27). Below we describe a statistical solution to this problem.
changing voter constellations, but to validate a model of the latent risk/opportunity structure that informs party strategy. This approach is supported by the choice of Euromanifestos for the measurement of issue emphasis. Elections to the European Parliament, the occasions these manifests are designed for, have long been considered “second-order” contests with low public awareness and limited campaign efforts (Reif and Schmitt 1980). What is certainly worrying in a normative sense ensures in our analysis that the potential confounding effect, that of manifesto content on public opinion, is circumstantial at most.

The EES data also have other advantages: they provide excellent “windows into the national political processes” (Van der Brug, Franklin and Tóka 2008, 589). Although the supranational function of EP elections may be thought to bias the relationship of voting behavior and party strategy, their “second-order” nature implies that any such noise is very limited. Domestic politics, and not matters of European integration, dominate the public agenda in EP elections. Overall, then, the EES offers all advantages of a standardized election survey and permits analysis of electoral politics in diverse contexts at the same time. To exploit the wealth of these data thoroughly, we will apply a multilevel modeling strategy (see the specific section below).

Turning to operationalization, remember that a valence issue may be either characterized by wide agreement or by wide disagreement (as discussed for Table 2 above). Since valence (or any degree of quasi-valence) may refer to either of the two, we measure emphasis separately for the two sides of each issue. The coding of the manifesto items accommodates this approach as a positive aspect.

\[15\] Our measures reflect this approach: Only one out of the 12 Likert items is concerned with European integration, and partisanship is based on vote intention in national elections. But note that to the degree that EP elections are actually about Europe, the voter-party connection on domestic issues is blurred, thus making it harder to confirm our hypotheses. We also tested two systematic intervening variables suggested by EP elections research, the turnout differential between national and EP elections and timing in the national electoral cycle, but did not find significant interactions.
and a negative category are recorded separately for each issue.\textsuperscript{16} We analyze the two sides as alternative policies on the same issue.

The policy items derived from the manifesto data were then matched to the Likert scales from the voter survey. We explicitly chose to include all issues present in the EES for the sake of avoiding selection bias, even when conceptual matching was problematic (tests on restricted policy sets showed less error and stronger support for our hypotheses). Our choices are documented in the Appendix.

Initial inspection of our dependent variable showed a clear deviation from the normal distribution. About 63\% of the cases have a value of 0 because the policies were not mentioned at all by the respective parties. This is in line with our expectations: parties seem to carefully select policies, and the positive/negative bifurcation of issues expands their choice. However, a methodological problem arises because the policies that are not selected may not be all the same. Some of them may reflect “true” zeros, i.e. the respective parties simply do not deem them relevant for their campaigns, while others may reflect “false” zeros in the sense that parties actually try to deemphasize them. If they could, they would put even less than 0 emphasis on these policies. However, our measure of emphasis – the share of manifesto content – cannot take on values below 0 and thus fails to register this aspect of party strategy. In statistical terms, our dependent variable is said to be “censored” at 0. Linear regression is inconsistent in this case because it takes censored data at face value (Wooldridge 2002, 524f.). A superior alternative is the tobit link function that treats censored values as elements of a latent continuous variable. Besides fulfilling important

\textsuperscript{16} Earlier studies aggregated this information into one value per party. However, this would imply the (empirically relevant) risk of counting quasi-sentences as indicating emphasis in favor of a certain policy although the statements are actually directed against that policy (and vice versa). Our strategy exploits the wealth of the manifesto data in a more effective way, instead of simply glossing over the presence of two-sided issues.
statistical assumptions, the latent construct has the advantage that it does not merely reflect whether or not party officials typed certain sentences in a document, but that it also teases out more information about the underlying mechanisms of party competition.\footnote{Also note that the dependent variable, percentage of manifesto space, is theoretically constrained to a sum of 100\% within each party. This might result in negative autocorrelation between policies because the more a party emphasizes one policy, the less it can emphasize others (cf. Katz and King 1999 for the similar case of election results). Empirically the problem proved negligible because we only use 14 out of the 90 issues in the coding scheme, with an average correlation of .004. This supports the assumption of independence of observations required by the tobit model, and also permits “muddling-through” campaigns for parties that do not want to rock the boat.}

**A first empirical test**

Regressing our measure of policy emphasis in a mixed effects tobit model (including random intercepts by country-policy combination) on dummy indicators for the four quadrants of the SP diagram supported our expectations. *Bridge policies* receive clearly higher emphasis than all other types to a statistically significant extent ($p<.01$). *Pet and venture* policies follow. *Dead-end policies* are least emphasized, albeit with a confidence interval that is partially overlapping with that of *pet policies*.

These preliminary findings are reassuring. They suggest that our basic theoretical intuition allows us to categorize policies according to their strategic value in party competition. But of course this exercise is meant to be indicative, not conclusive. Our simple typology ignores potentially large differences between policies *within* each quadrant and exaggerates the differences *between* the quadrants, which will be much smoother in reality. A more accurate quantification of the SP diagram is thus called for. This is the subject of the next section.
A summary measure of risks and opportunities: issue yield

Based on our theoretical considerations and preliminary findings, the first requirement for a numeric index expressing the risk/opportunity ratio offered by a policy to a party would be that it reaches its maximum for typical bridge policies in the top right quadrant and its minimum for typical dead-end policies in the bottom left quadrant. Note, however, that it would be naïve to expect full identification of a party with a proposed “bridge policy” in the sense that its new electorate coincides exactly with the electorate supporting the policy. Parties do not lose their existing identity just because they propose a new policy; nor they aim to do so. Policies send signals to the electorate: for example, a large conservative governing party may advertise its favorable position toward a “harsher sentences” policy to signal that it will keep a tough stance on crime. This does not mean that fighting crime will become the only goal of the party, nor does it imply a massive securitarian turn on other issues. In other words, we suggest that policies are used to advertise a future direction of the party in terms of the new electorate(s) it wants to attract.

These theoretical considerations can be expressed using a vector framework. With reference to a support-partisanship diagram as shown in Figure 1, the signal transmitted by a specific policy emphasis can be described by a vector (with its direction and magnitude) that connects the origin $O$ (the border point between the four quadrants) to the location of the policy. $O$ represents “neutral” policy emphasis. A policy at $O$ is neutral in terms of partisanship (equally supported within and outside the party base) and in terms of overall support (equal in size to the party’s support base). In relation to this neutral point, an emphasis of the “private enterprise best +” policy of Figure 1 (an example of a bridge policy) goes in the direction of both satisfying the party base and reaching new voters, while an emphasis on the “woman cut work for family –” policy in the same figure (an example of a venture policy) goes in the risky direction of reaching new voters but dissatisfying the party base (although with a smaller magnitude compared to the “private enterprise best +” policy). Similar considerations apply to issues in the other quadrants.
Mathematical expressions for the direction and magnitude of each policy emphasis vector can be derived using simple trigonometry. Direction is expressed as an angle in relation to a reference line. The obvious choice for the reference line is the bisector of the top right quadrant, as it best expresses the characteristics of a bridge policy. Policies lying on this reference line (denoted by $r$ in Figure 1) most effectively combine attention to the party base with an attempt to reach a new electorate.

Once the reference line $r$ is identified, the summary measure of issue yield can be derived from the geometric operations in Figure 2, which shows a selection of the policy points of Figure 1. The direction of a policy emphasis is identified by the angle $\theta$ between the reference line $r$ and the vector $\overrightarrow{OT}$ describing the signal of an emphasis on policy $T$. The most intuitive way to translate this angle into a meaningful index is its cosine, which ranges from +1 for an optimal issue (lying on the reference line in the top right bridge policies quadrant) to -1 for the “worst” possible issue (also lying on the reference line, but in the bottom left dead-end policies quadrant). Values of $\cos(\theta)$ are reported as labels for each policy in Figure 2.

[Figure 2 about here]

The magnitude of the vector can be computed using Pythagoras’ theorem. Given that the unit of both axes is vote shares, vector magnitude expresses how different the origin and destination electorates are. The vertical axis expresses how different they are in terms of size, while the horizontal axis expresses how different they are in terms of partisanship.

Direction (expressed by $\cos(\theta)$) and magnitude (the length of the vector) contain all the information describing a policy emphasis. However, these quantities alone cannot fully express our hypotheses. For policies in the “bridge” quadrant, we expect a positive relationship between magnitude and policy emphasis: the larger the magnitude (a policy sending a stronger signal in the optimal direction), the more the party should emphasize the policy. But for negative values of direction, we expect the opposite effect: a policy sending a stronger signal in the “wrong” direction
should be deemphasized more systematically. In other words, we expect an interaction of direction and magnitude as captured by their product.

Multiplying the magnitude of vector $\overrightarrow{OT}$ by the cosine of its angle with the reference line ($\cos(\theta)$) simply expresses the (signed) magnitude of the projection of the vector on the reference line, which corresponds to vector $\overrightarrow{OT'}$. In line with our expectations, the interaction of direction and magnitude expresses that parties will emphasize policies that deviate from the optimal line only as long as they imply at least some (inevitably smaller) progress in the optimal direction. Our measure of issue yield is therefore defined as the value of this interaction. Thus in general:

$$\text{general issue yield} = (\text{vector length}) \cdot \cos(\theta)$$  \hspace{1cm} (1)

In a coordinate system originating at $O$ (so that $x = f - i\cdot p$ and $y = i - p$), equation (1) simply yields (proof in Appendix):

$$\text{general issue yield} = \frac{\sqrt{2}}{2} (x + y)$$ \hspace{1cm} (2)

This simple (yet preliminary) formulation expresses how basic issue yield is proportional to the sum of differential support for the issue within the party and support for the issue beyond the party. The equal weighting of the two coordinates reflects that gaining a new voter has the same a priori importance as keeping an existing one. Importantly, however, we then reparameterize equation (2) in terms of $p$, $i$ and $f$ as proposed above ($x = f - i\cdot p$ and $y = i - p$), and normalize $x$ and $y$ in terms of their theoretical maximum values (which are party-dependent) so as to allow inter-party comparisons. Finally we scale the vector projection to a maximum of 1 and obtain (proof in Appendix):

$$\text{scaled issue yield} = \frac{f - i\cdot p}{p(1 - p)} + \frac{i - p}{1 - p}$$ \hspace{1cm} (3)
This measure of issue yield expresses a combination of risks and opportunities specific to each party. The normalization of the coordinates expresses this in that it implies that the weight of support increases with party size, whereas the weight of partisanship decreases simultaneously. This reflects that a small party will be more sensitive towards the risk of losing a certain percentage of the electorate, which may well threaten its electoral future. For a larger party the same loss would be of much less consequence. Analogically, a small party will discount its chances of actually gaining a larger percentage of the electorate, which is more realistic for a larger party. The normalization translates such different sensitivities into differences of scale.

A multi-level model of policy emphasis based on issue yield

Our basic hypothesis, as implicit in the previous section, is that policy emphasis can be predicted by the configuration of risks and opportunities summarized by the index of issue yield. Stronger evidence in favor of the model would be that the index (an interaction term) renders both its constitutive terms (direction and magnitude) as well as its ultimate elements \( p, i \) and \( f \) redundant. This would mean that issue yield effectively summarizes all the information from \( p, i \) and \( f \) that is relevant for predicting party strategy. We now proceed to test these hypotheses.

To utilize the potential of our large dataset, care must be taken in estimating the model parameters. It would be heroic to assume that the effect of issue yield is the same across countries, parties, and issues. Parties of different families may differ in their ideological flexibility, issues may have different meanings across contexts, and different party systems may present actors with distinct incentives. Such heterogeneity could seriously bias the estimates and inflate significance tests. Hierarchical modeling allows us to address the statistical problems involved and to explore variation in the role of issue yield in substantive terms.

We estimated a three-level, mixed effects tobit model with parties nested within party families nested within issues. Random intercepts and random slopes for issue yield were modeled at the issue and issue*family levels with an unstructured covariance matrix. A fourth level for country
variation would render the model inestimable, but we evaluated country effects *ex post* as described in the next section. To account for likely dependencies between policy strategies of competing parties, we used robust standard errors clustered by country. All calculations were carried out using Stata’s `-gllamm-`.

Goodness of fit was evaluated using three different measures, which are usually not included in multi-level analyses: overall R-squared, nesting structure R-squared, and residual country R-squared. All of them represent squared correlations between observed and predicted values, but their different foci allow for an appropriate interpretation that takes into account the hierarchical structure of the data. In a multi-level model, random intercepts at various levels already provide predictive power, even without observation-level covariates. The nesting structure R-squared expresses this power, in terms of the squared correlation between observed values and values predicted only by the random intercepts of a particular model. This allows interpretation of the overall R-squared, which expresses the overall fit of the full multi-level model, in light of the fact that part of it is simply due to the hierarchical structure and as such not actually “explained” by any covariate.

The ideal comparative model should also explain context differences through specific covariates, making random intercepts shrink towards zero. Comparing the nesting structure R-squared across models with and without covariates provides a way to assess this ability of covariates to “explain away” context differences. If covariates increasingly explain such differences, the nesting structure R-squared will decrease when covariates are added.

In analogy to this reasoning, we also present a “residual country R-squared” to demonstrate *ex post* that our model explains the bulk of cross-country variation (as mentioned above, an explicit country level was computationally prohibitive). The measure expresses the predictive power of country dummies (along with their interactions with issue yield) in regressions of issue emphasis on the *predictions* of each previously estimated model.
Results

Table 3 presents six nested models. Model 1 includes only random intercepts, what allows us to evaluate how much of the overall variance is due to the nesting structure. Given the absence of covariates, the overall R-squared of .099 equals the nesting structure R-squared. The addition of country dummies provides an additional R-squared of 0.109, indicating that there is a substantial amount of unexplained country variation.\textsuperscript{18}

[Table 3 about here]

Model 2 adds issue yield (including random slopes at the issue and party family levels). Issue yield has a strong and statistically significant positive effect, which supports our hypothesis: parties put stronger emphasis on policies that present a more favorable configuration of electoral risks and opportunities. Model 2 is also particularly interesting in terms of explanatory power. Compared to Model 1, the overall R-squared is more than doubled (0.233), and the low value of the nesting structure R-squared shows that there is virtually no remaining contribution by the nesting variables. Moreover, the residual country R-squared drops from 0.109 to 0.030. Issue yield appears to provide a general explanation for what appeared in Model 1 as idiosyncratic differences between countries, issues and party families.

Model 3 adds vector magnitude and direction as covariates and thus specifies the full yield interaction including the two constitutive terms.\textsuperscript{19} Notably, the coefficient of issue yield is almost

\textsuperscript{18} Admittedly this value is somewhat inflated by the inclusion not only of country dummies, but also of country*issue-yield interactions.

\textsuperscript{19} Yield does not have random slopes in this model because an interaction cannot vary across nesting units independently of its components. Multiplicative constraints for all three slopes proved computationally infeasible.
unaffected by this manipulation, and the coefficients of magnitude and direction are both weak and
insignificant. This confirms that the yield index indeed captures the risk-opportunity constellation
relevant for party strategy, and it does not require auxiliary variables to calibrate its effect.

This finding also indicates that the mechanics of the model are somewhat different for
venture and pet policies than for bridge and dead-end policies. Remember that vector direction
(cos(θ)) is 1 for the bisector of the upper right (bridge) quadrant of the SP diagram and –1 for the
bottom left (dead-end) quadrant. Thus, direction is 0 for the bisectors of the two off-diagonal
quadrants. Now note that the coefficients of magnitude and direction indicate the marginal effect for
the case that the other variable is 0 (i.e. when the interaction term is 0, too). The weak and
insignificant effect of direction thus means that magnitude does not matter when direction is close
to 0 – as is the case for typical venture and pet policies.20 Emphasizing such policies then appears as
a categorical decision. Pet policies seek sizable minorities by catering to the party faithful, while
venture policies aim to transform the party by relocating its support base. The categorical nature of
these risky choices is readily interpreted when remembering that they contrast gains on one criterion
(support or partisanship) with losses on the other. This means that more or less of such a policy
signal is not automatically “better” or “worse,” as is the case for bridge and dead-end policies.

Model 4 presents the second multivariate model, where the original components of issue
yield (p, i, and f) are introduced. The contribution of these variables is very limited (R-squared
increases by .002) and none of the effects reaches statistical significance. Issue yield still shows a
strong and significant effect and therefore passes also this second robustness test.

Before proceeding to Model 5 and 6, let us consider the random slope specification in more
detail. Although we can only offer exploratory interpretations at this stage, the empirical patterns

20 Vice versa, and less surprisingly, the weak and insignificant effect of magnitude means that
direction does not matter when magnitude is tiny, i.e. when the policy is neutral anyway.
shed further light on the operation of issue yield and demonstrate how multilevel modeling allows us to account for heterogeneity across different party families, issues, and countries.

In the bivariate model (Model 2), the effect of issue yield varies across issues with a variance of 11.70. The covariance with the random intercept is negative, which implies that issues with generally low emphasis are more readily exploited once an opportunity arises, while issues with generally high emphasis appear to be more staked out. Moreover, posterior means for the random slopes (not shown) indicate weaker effects of issue yield for currently sensitive areas like immigration and multiculturalism, whereas traditional issues like redistribution and law & order show the strongest effects. This suggests that issue yield matters most when not compromised by interfering factors such as delicate alignments with extremist positions.

The estimated variance of the issue yield effect between party families (7.26) is lower than between issues. This is particularly notable because family was specified as the lower nesting level, meaning that the family effect even varies within issues. When averaging over issues, family variance drops to a mere 0.67. In other words, the model captures the mechanism of party strategy well for all party families, underlining the general vigor of issue yield. To the degree that there are family differences, it seems that “niche parties” (Meguid 2008; Ezrow 2010) feature particularly strong effects. There is no complete consensus about the empirical definition of niche parties, but green parties and nationalist parties are covered by all major studies (cf. Wagner 2012). These are also the two families with the strongest effects of issue yield, suggesting that policy is indeed the deciding factor in carving out the “niche.”

The separate model of country variation revealed generally lower effects of issue yield in the new democracies of Central and Eastern Europe. This does not come as a surprise because the foundations of the spatial model – issue representation and voter-party linkages – had to be established almost from scratch after the fall of communism. The most important finding, however, is that issue yield has a strong and positive effect in all countries in the dataset.
Multi-party competition

To achieve our goal of a general model of party strategy, we have made various simplifying assumptions along the way. One is that we have ignored many of the complications posed by multi-party competition. The elements of the yield index were derived from a crosstabulation that pits the party in question against “all other parties” (Table 2). We have thus “collapsed” multi-party systems into artificial two-party systems. Of course this conceals that there are differences among “all other parties” with implications for strategizing. In particular, some competitors will be ideologically closer to a certain party than others. Such competitors pose a greater risk to the party because its voters may defect to them more readily, but they also offer greater opportunities because the party may more easily poach new voters from them.

To some degree our model takes these complications implicitly into account. Under the assumption that potential, ideologically close voters do not differ greatly from the party’s present supporters, issues that are popular among the potential voters are assigned high yield. The “bridging capacity” of a policy is thus overproportionally affected by voters who are easily won over. To the degree that their ideological bases overlap, two competing parties will fight over the same issues.

But structure in multi-party competition may be more complicated. Ideological differences between parties may not only be reflected in proximity relations but also in distinct traditional identities. If a party traditionally “owns” an issue (or a policy, for that matter), it will be hard if not impossible for other parties to intrude into its territory. If a competitor mimics the policy position, voters are likely to give the “benefit of the doubt” (Feld and Grofman 1991; also see Adams 1998) to the traditional “owner.” Similarly, a party with a large non-policy valence advantage deters competing strategies in its proximity (Schofield and Sened 2006).

These considerations suggest that strong issue ownership discourages party competition based on issue yield. A high-yield policy will not attract a party’s attention if it is owned by another party, so that the prospects of actually gaining votes are low. Campaign emphasis is better spent on a policy with somewhat lower yield but less resistance due to ownership.
We test this expectation by analyzing the distribution of policy support among each party’s competitors. If the distribution is biased toward one competitor, i.e. if most voters who support a policy also support this party, there is reason to assume that this party “owns” the policy. If policy support is distributed more equally, however, competition is open and no party may be said to “own” the policy. In the former case we expect the effect of yield on policy emphasis to be lower than in the latter case.

A measure of the distribution of policy support can be constructed in analogy to Laakso and Taagepera’s (1979) “Effective Number of Parties” (ENP). The ENP counts parties as a function of their vote shares so that large parties weigh more than small ones.\footnote{The ENP is defined as $ENP = \frac{1}{\sum_{i=1}^{n} p_i^2}$ where $p$ is the vote share of a party.} We will adapt this measure for our purposes in two respects. First, we do not compute our measure on overall vote shares, but on shares of the support base of each policy. For example, if a policy is supported by 60% of the electorate, our measure counts parties as a function of the share of these 60% that also support the party. Second, we are not interested in the global number of parties in a system but in the number of competitors each party faces. Our measure should therefore not be affected by the share of policy support that is “owned” by the respective party itself. Accordingly, we correct the ENP for each party’s contribution. The resulting construct is our measure of the “Effective Number of Competitors” (ENC).\footnote{A party’s ENP-contribution is $ENP_{\text{contrib}} = ENP \cdot \frac{p_i^2}{\sum_{i=1}^{n} p_i^2} = \frac{1}{\sum_{i=1}^{n} p_i^2} \cdot \frac{p_i^2}{\sum_{i=1}^{n} p_i^2} = \frac{p_i^2}{(\sum_{i=1}^{n} p_i^2)^2}$} It is calculated for each party and each policy.

To test our hypothesis we interact the ENC with issue yield. We expect a significant positive coefficient for the interaction term, indicating that issue yield matters more for higher ENC (open

\[\text{The party-specific ENC is then calculated by } ENC_i = ENP - ENP_{\text{contrib}} = \frac{1}{\sum_{i=1}^{n} p_i^2} \cdot \frac{p_i^2}{(\sum_{i=1}^{n} p_i^2)^2}\]
competition) and less for lower ENC (“ownership”). Model 5 in Table 3 confirms this. For the case that a party has a single competitor which is likely to “own” the policy (i.e. when ENC=1), the marginal effect of issue yield is 2.94 (2.32+0.62). This is clearly lower than the global effect of 4.25 in Model 2. Vice versa, for the observed maximum ENC of about 7, the marginal effect of issue yield is a strong 6.68 (2.32+7×0.62). When there is open policy competition, party strategy is highly structured by issue yield. In a more strategic sense, this also indicates that parties spend their resources on policies where their opponents are vulnerable while they hesitate to attack dominant players.\(^{23}\)

Model 6 finally serves to demonstrate that our findings concerning issue ownership are not an artifact of general party-system characteristics. For some reason issue yield may be more important in more fragmented party systems (i.e. for high ENP), and this may also be reflected in our ENC measure. To control for this possibility we add the original ENP (measured by seat shares in the national parliaments) as a regressor, together with its interaction term with issue yield. Model 6 shows that neither of these variables has a noteworthy effect, and that other coefficients are largely unaffected by the manipulation.

**Conclusions**

We started by suggesting that policy emphasis is a fundamental resource for party competition, especially given the constraints of positional strategies. We then showed how the two main rival frameworks for the analysis of issue competition, the positional model and the valence model, can

---

\(^{23}\) The marginal effect of ENC itself is also noteworthy. It is negative for low-yield policies and positive for high-yield policies. Attractive policies are emphasized when ownership does not discourage competition, what is in line with our expectations. For policies that are not overly attractive in any event, however, the ENC reduces emphasis, arguably indicating that parties definitely refrain from risky strategies if many competitors need to be dealt with.
be encompassed in a single, overarching conceptualization. This new framework allows us to predict, from very basic information about voter distributions, which policies parties will stress during their campaigns. Our empirical results show that the indicator of issue yield subsumes several important variables characterizing the party-policy relationship, and it also explains variation across party families, countries, and issues.

More work needs to be done to explore the interactions of issue yield. We have modeled the moderating effect of issue ownership, but other aspects of electoral competition such as issue saliency and preference intensity may also intervene. Another promising direction is to explore the parallels of issue yield to the concept of “wedge politics” primarily used in the United States: in a two-party system, maximizing the support dimension of one party’s platform generally suggests emphasizing issues that divide the other party, but integrating the competitor’s voters also compromises the partisanship dimension of other issues. Issue yield can be considered a strategic solution to this trade-off.

Moreover, scholars may use time-series or panel data to resolve the question of reverse causation potentially affecting our results. If voters who prefer a party for some reason tend to adopt its policy positions (be it due to persuasion or mere rationalization), it might seem that electoral strategies are structured by issue yield while in reality issue yield is structured by electoral strategies. In defense of our cross-sectional analysis, however, it is worth noting that the issue yield measure is not naïve with regard to the direction of causality. If the reverse hypothesis were true, there would be no need for parties to take intra-party opinion into account. They could simply concentrate on majority strategies, and intra-party opinion would follow. This is clearly not what we observe. Instead, we have demonstrated that mass opinion and intra-party opinion interactively constrain party strategy. This interaction, as expressed by the issue yield indicator, captures the logic of policy emphasis in party competition.
References


Table 1 - Average EU-27 percentages of respondents supporting specific policy statements

(country means)

<table>
<thead>
<tr>
<th>Statement</th>
<th>% agreeing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same-sex marriages should be prohibited by law.</td>
<td>44</td>
</tr>
<tr>
<td>Major public services and industries ought to be in state ownership.</td>
<td>55</td>
</tr>
<tr>
<td>People who break the law should be given much harsher sentences than they are these days.</td>
<td>79</td>
</tr>
<tr>
<td>Women should be free to decide on matters of abortion.</td>
<td>82</td>
</tr>
</tbody>
</table>

Data source: EES 2009. N (countries)=27; N (respondents)=27,069.
Table 2 - Party and policy support for an “Immigrants should be required to adapt to the customs of our country” policy in a hypothetical party system

<table>
<thead>
<tr>
<th></th>
<th>The Right</th>
<th>All other parties</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrees with the statement</td>
<td>.50 (.41)</td>
<td>.25 (.34)</td>
<td>.75</td>
</tr>
<tr>
<td>Disagrees with the statement</td>
<td>.05 (.14)</td>
<td>.20 (.11)</td>
<td>.25</td>
</tr>
<tr>
<td>Total</td>
<td>.55</td>
<td>.45</td>
<td>1</td>
</tr>
</tbody>
</table>

Cells report observed relative frequencies, with expected relative frequencies in parentheses.
Table 3 - Mixed effects tobit models of policy emphasis, based on issue yield and its components

<table>
<thead>
<tr>
<th>Tobit coefficients</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tobit coefficients</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue yield</td>
<td>4.25***</td>
<td>3.93***</td>
<td>4.36***</td>
<td>2.32***</td>
<td>2.41***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.98)</td>
<td>(0.42)</td>
<td>(0.59)</td>
<td>(0.75)</td>
<td>(0.95)</td>
<td></td>
</tr>
<tr>
<td>Vector direction (cos ( \theta ))</td>
<td>0.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vector magnitude</td>
<td>0.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.87)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue support (( i ))</td>
<td>0.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Party support (( p ))</td>
<td>2.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.74)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue-party support (( f ))</td>
<td>-1.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.09)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective number of competitors</td>
<td>-0.32***</td>
<td>-0.32*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td>(0.17)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue yield*ENC</td>
<td>0.62***</td>
<td>0.65***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.14)</td>
<td>(0.14)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective number of parties</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue yield*ENP</td>
<td>-0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-1.37***</td>
<td>-3.27***</td>
<td>-3.40***</td>
<td>-3.62***</td>
<td>-2.99***</td>
<td>-2.31***</td>
</tr>
<tr>
<td></td>
<td>(0.35)</td>
<td>(0.72)</td>
<td>(1.24)</td>
<td>(1.14)</td>
<td>(0.59)</td>
<td>(0.62)</td>
</tr>
</tbody>
</table>

**Random effects (variances)**

*Level 1 (party, N=3600)*

<table>
<thead>
<tr>
<th><strong>Residual</strong></th>
<th>9.38</th>
<th>6.70</th>
<th>7.78</th>
<th>6.70</th>
<th>6.65</th>
<th>6.64</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(2.40)</td>
<td>(1.63)</td>
<td>(1.98)</td>
<td>(1.63)</td>
<td>(1.55)</td>
<td>(1.61)</td>
</tr>
</tbody>
</table>

*Level 2 (party family, N=10*12)*

<table>
<thead>
<tr>
<th><strong>Intercept</strong></th>
<th>0.37</th>
<th>0.66</th>
<th>0.38</th>
<th>0.61</th>
<th>0.53</th>
<th>0.52</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0.16)</td>
<td>(0.40)</td>
<td>(0.18)</td>
<td>(0.43)</td>
<td>(0.44)</td>
<td>(0.45)</td>
</tr>
<tr>
<td><strong>Issue yield</strong></td>
<td>7.26</td>
<td>6.95</td>
<td>6.44</td>
<td>6.44</td>
<td>6.44</td>
<td>6.44</td>
</tr>
<tr>
<td></td>
<td>(2.29)</td>
<td>(2.53)</td>
<td>(2.34)</td>
<td>(2.23)</td>
<td>(2.34)</td>
<td>(2.23)</td>
</tr>
<tr>
<td><strong>Covariance</strong></td>
<td>-1.39</td>
<td>-1.32</td>
<td>-1.14</td>
<td>-1.14</td>
<td>-1.14</td>
<td>-1.14</td>
</tr>
<tr>
<td></td>
<td>(0.56)</td>
<td>(0.61)</td>
<td>(0.62)</td>
<td>(0.61)</td>
<td>(0.62)</td>
<td>(0.61)</td>
</tr>
</tbody>
</table>

*Level 3 (issue, N=12)*

<table>
<thead>
<tr>
<th><strong>Intercept</strong></th>
<th>2.07</th>
<th>3.07</th>
<th>2.10</th>
<th>3.02</th>
<th>2.94</th>
<th>2.94</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0.68)</td>
<td>(0.96)</td>
<td>(0.95)</td>
<td>(1.36)</td>
<td>(1.44)</td>
<td>(1.22)</td>
</tr>
<tr>
<td><strong>Issue yield</strong></td>
<td>11.70</td>
<td>11.47</td>
<td>11.30</td>
<td>11.28</td>
<td>11.28</td>
<td>11.28</td>
</tr>
<tr>
<td></td>
<td>(7.21)</td>
<td>(8.71)</td>
<td>(8.13)</td>
<td>(8.04)</td>
<td>(8.13)</td>
<td>(8.04)</td>
</tr>
<tr>
<td><strong>Covariance</strong></td>
<td>-2.70</td>
<td>-2.62</td>
<td>-2.50</td>
<td>-2.50</td>
<td>-2.50</td>
<td>-2.50</td>
</tr>
<tr>
<td></td>
<td>(1.78)</td>
<td>(2.27)</td>
<td>(2.15)</td>
<td>(2.14)</td>
<td>(2.15)</td>
<td>(2.14)</td>
</tr>
</tbody>
</table>

**Model performance**

<table>
<thead>
<tr>
<th><strong>Log likelihood</strong></th>
<th>-4543</th>
<th>-4158</th>
<th>-4302</th>
<th>-4154</th>
<th>-4148</th>
<th>-4148</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R^2 (overall)</strong></td>
<td>0.099</td>
<td>0.233</td>
<td>0.173</td>
<td>0.235</td>
<td>0.237</td>
<td>0.237</td>
</tr>
<tr>
<td><strong>R^2 (nesting)</strong></td>
<td>0.099</td>
<td>0.009</td>
<td>0.096</td>
<td>0.010</td>
<td>0.010</td>
<td>0.010</td>
</tr>
<tr>
<td><strong>Residual R^2 (country)</strong></td>
<td>0.109</td>
<td>0.030</td>
<td>0.032</td>
<td>0.030</td>
<td>0.028</td>
<td>0.028</td>
</tr>
</tbody>
</table>

Robust standard errors clustered by country in parentheses.

Significances for coefficients: *** .01  ** .05  * .1

1 The R^2 measures report squared correlations of original and predicted values. The nesting R^2 derives from the random intercepts only. The residual country R^2 is the difference in R^2 that results from adding country dummies and their interactions with issue yield to regressions of issue emphasis on the predictions of each model.
The signs (+) and (–) indicate agreement or disagreement with the statement, respectively.

**Figure 1 - Support-Partisanship diagram for twelve policy statements: Partido Popular (Spain).** Data source: EES 2009.
Marker labels express values of $\cos(\theta)$.

Figure 2 - Construction of the issue yield index, exemplified on the Support-Partisanship diagram for the Partido Popular (Spain). Data source: EES 2009.
Appendix

Proof 1) Minimum and maximum values of differential support

Given the definitions of \( p, i, f \) and \( d \) provided in the text, we showed (see note 9) that

\[
f \in \left[ \max(0, i - (1 - p)), \min(i, p) \right].
\]

But since

\[
d = f - ip,
\]

constraints for \( d \) can be directly obtained by subtracting \( ip \) from the constraints for \( f \):

\[
d \in \left[ \max(-ip, i - (1 - p) - ip), \min(i - ip, p - ip) \right]
\]

In the SP diagram, the \( x \) axis represents \( d \), and the \( y \) axis represents \( i \). Beginning with the constraint for the maximum value of \( d \) as a function of \( i \), the equations can be obtained by first substituting, in the above constraint, \( \max(d) \) with \( x \), and \( i \) with \( y \): \( x = \min(y - yp, p - yp) \), which corresponds to two different equations for values of \( y \) that are lower or higher than \( p \) (as visible in Figure 1):

\[
\begin{align*}
x &= y - yp \quad \text{[when } y \leq p \text{]} \quad \Rightarrow \quad y(1 - p) = x \quad \text{[when } y \leq p \text{]} \quad \Rightarrow \quad y = \frac{x}{1 - p} \quad \text{[when } y \leq p \text{]} \\
x &= p - yp \quad \text{[when } y > p \text{]} \quad \Rightarrow \quad yp = p - x \quad \text{[when } y > p \text{]} \quad \Rightarrow \quad y = \frac{1 - x}{p} \quad \text{[when } y > p \text{]}
\end{align*}
\]

Constraints for \( \min(d) \) are obtained analogously. Substitution in the above constraint for the minimum value of \( d \) yields \( x = \max(-yp, y - (1 - p) - yp) \). Thus we have two different equations for the two cases when \( y \) is above or below \((1 - p)\):

\[
\begin{align*}
x &= 0 - yp \quad \text{[when } y \leq 1 - p \text{]} \quad \Rightarrow \quad yp = -x \quad \text{[when } y \leq 1 - p \text{]} \\
x &= y - (1 - p) - yp \quad \text{[when } y > 1 - p \text{]} \quad \Rightarrow \quad y(1 - p) - (1 - p) = x \quad \text{[when } y > 1 - p \text{]} \quad \Rightarrow
\end{align*}
\]

\[
\begin{align*}
y &= \frac{-x}{p} \quad \text{[when } y \leq 1 - p \text{]} \\
y &= \frac{x}{1 - p} + 1 \quad \text{[when } y > 1 - p \text{]}
\end{align*}
\]
Proof 2) Derivation of issue yield

We first define:

\[
\text{general issue yield} = (\text{vector length}) \cdot \cos(\theta)
\]

The length of a vector of coordinates \((x, y)\) originating from a point \((0,0)\) is given by

\[
\sqrt{x^2 + y^2} \quad \text{(Pythagoras’ theorem)}.
\]

Regarding \(\cos(\theta)\), let us assume that we measure angles from the horizontal line departing from \(O\) to the right. This implies that the reference line (exemplified in Figure 2) corresponds by definition to an angle of \(\pi/4\) \((45^\circ)\). Thus, the angle \(\theta\) shown in Figure 2 can be obtained by first calculating the angle \(\delta\) between the horizontal line (not shown in Figure 2) and the \(OT\) segment, and then subtracting the reference angle \(\pi/4\): \(\theta = \delta - \pi/4\).

Given that our quantity of interest is \(\cos(\theta)\), and that, in general, \(\cos(A-B) = \cos(A) \cos(B) + \sin(A) \sin(B)\), we obtain:

\[
\cos(\theta) = \cos(\delta) \cos\left(\frac{\pi}{4}\right) + \sin(\delta) \sin\left(\frac{\pi}{4}\right)
\]

Given that both \(\cos\left(\frac{\pi}{4}\right)\) and \(\sin\left(\frac{\pi}{4}\right)\) are equal to \(\frac{\sqrt{2}}{2}\),

\[
\cos(\theta) = \frac{\sqrt{2}}{2} (\cos(\delta) + \sin(\delta))
\]

Now, if the issue emphasis vector is between the origin and coordinates \((x,y)\), the angle \(\delta\) is such that:

\[
\cos(\delta) = \frac{x}{\sqrt{x^2 + y^2}}, \text{ and } \sin(\delta) = \frac{y}{\sqrt{x^2 + y^2}}
\]

So that

\[
\cos(\theta) = \frac{\sqrt{2}}{2} \cdot \frac{x + y}{\sqrt{x^2 + y^2}}
\]
As a result,

\[
general\ issue\ yield = \left(\text{vector length}\right) \cdot \cos(\theta) = \sqrt{x^2 + y^2} \cdot \frac{\sqrt{2}}{2} \cdot \frac{x + y}{\sqrt{x^2 + y^2}} = \frac{\sqrt{2}}{2} (x + y) \ [1]
\]

This simple formula applies to generic coordinates \(x\) and \(y\) from origin \(O\). So a first step is to obtain \(x\) and \(y\) in terms of our basic quantities \(p\), \(i\) and \(f\), given that \(O\) lies in \((0, p)\), and policy location \(T\) in \((f - ip, i)\). Secondly, we normalize these coordinates so that all policies are in the \((0,1)\) range on both axes. This is done by dividing both coordinates by their maximum possible values.

For the ordinate, Figure 2 shows that its maximum value (maximum possible distance from origin \(O\)) is \(1 - p\); for the abscissa, the maximum possible value is observed when \(y = p\) (see Figure 2), from which follows (see proof 1) a maximum of \(p - p^2 = p(1 - p)\).

Thus, policies are located in the normalized coordinate system by first subtracting the coordinates of \(O\) (0, \(p\)) from the original coordinates of \(T(f - ip, i)\) and then dividing the results by the maximum possible values stated above:

\[
x = \frac{f - ip}{p(1 - p)}
\]

\[
y = \frac{i - p}{1 - p}
\]

By placing these values in equation [1], we obtain

\[
general\ issue\ yield = \frac{\sqrt{2}}{2} \left( \frac{f - ip}{p(1 - p)} + \frac{i - p}{1 - p} \right),
\]

which is the length of the projection of the vector on the reference line \(r\). Given the normalized coordinate system above, the maximum possible length of this projection corresponds to the distance between \(O\) and the intersection of \(r\) with the upper left boundary line, which by definition lies at (0.5,0.5). Thus, \( \max(\text{general issue yield}) = \frac{\sqrt{2}}{2} \). We then obtain a scaled measure of issue yield with a maximum value of 1 by dividing it by its maximum:
scaled issue yield = \[ \frac{\sqrt{2}}{2} \left( \frac{f - ip}{p(1 - p)} + \frac{i - p}{1 - p} \right) = \frac{f - ip}{p(1 - p)} + \frac{i - p}{1 - p}. \]

Due to the asymmetry of the SP diagram, the minimum value of scaled issue yield is not necessarily -1. For \( p < 0.5 \) the minimum lies between -1 and 0, while for the (mostly hypothetical) case of \( p > 0.5 \) it is lower than \(-1\).
## Matching of survey questions and manifesto items

<table>
<thead>
<tr>
<th>Voter survey</th>
<th>Manifesto data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q56. Immigrants should be required to adapt to the customs of &lt;country&gt;.</td>
<td>080100 Multiculturalism (r)</td>
</tr>
<tr>
<td>Q57. Private enterprise is the best way to solve &lt;country&gt;’s economic problems.</td>
<td>050101 Free Enterprise</td>
</tr>
<tr>
<td>Q58. Same-sex marriages should be prohibited by law.</td>
<td>090403 Homosexuals (r)</td>
</tr>
<tr>
<td>Q59. Major public services and industries ought to be in state ownership.</td>
<td>050204 Publicly-Owned Industry;</td>
</tr>
<tr>
<td>Q60. Women should be free to decide on matters of abortion.</td>
<td>050401 Nationalization</td>
</tr>
<tr>
<td>Q61. Politics should abstain from intervening in the economy.</td>
<td>090502 Women</td>
</tr>
<tr>
<td>Q62. People who break the law should be given much harsher sentences than they are these days.</td>
<td>050201 Controlled Economy (r);</td>
</tr>
<tr>
<td>Q63. Income and wealth should be redistributed towards ordinary people.</td>
<td>050600 Market Regulation (r)</td>
</tr>
<tr>
<td>Q64. Schools must teach children to obey authority.</td>
<td>080301 Law and Order</td>
</tr>
<tr>
<td>Q65. EU treaty changes should be decided by referendum.</td>
<td>070300 Social Justice</td>
</tr>
<tr>
<td>Q66. A woman should be prepared to cut down on her paid work for the sake of her family.</td>
<td>080200 Traditional Morality; 080301 Law and Order</td>
</tr>
<tr>
<td>Q67. Immigration to &lt;country&gt; should be decreased significantly.</td>
<td>020200 Democracy; 030102 Transfer of Power to the EC/EU (r) 080200 Traditional Morality; 090502 Women (r) 080502 Immigration (r)</td>
</tr>
</tbody>
</table>

(r) = reversed, i.e. the negative side of the manifesto item is matched to the “agree” pole of the voter survey.