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BEYOND "POSITION" AND "VALENCE"
A UNIFIED FRAMEWORK FOR THE ANALYSIS OF
POLITICAL ISSUES

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Abstract

Starting from a review of models of positional and valence issues, the paper – by tapping into the original definition of valence issue – introduces a classification of issues based on their level of overall, dychotomic agreement. This allows the placement of both positional and valence issues on a same continuum. A second dimension is then introduced, which identifies how much specific issues are over- or undersupported within a specific party. A visual classification of issues based on these two dimensions (the AP diagram) is then introduced, highlighting risks and opportunities for a party in campaigning on specific issues. Specific indicators (namely, issue yield) and hypotheses derived from the AP model are tested on survey data from the EU Profiler project, which collected issue profiles of Internet users from the 27 EU Countries before the EP 2009 Elections. The results show that the suggested dimensions and indicators identify a wide cross-country and cross-issue variance. Also, indicators generated by the AP model are powerful predictors of issue saliency, even subsuming traditional Downsean indicators

Keywords

Introduction[*]

This paper is dedicated to the analysis of political issues, and to the introduction of a framework of analysis regarding how issues are employed in party competition. I suggest that an interest on political issues can be motivated with the intersection of two processes. On the one hand, the long-term modernization process of Western European countries has manifested itself, in the electoral arena, in terms of an overall *individualization* of the voting decision, where structural factors have a decreasing explanatory power; such process alone would leave room for an increasing role of *political* factors, namely the structure of the political alternatives that are presented to voters, as well as the strategies employed by the political actors that present them (see e.g. Thomassen 2005).

On the other hand, this social process is complemented by a parallel change that has strongly affected *political actors* themselves. As highlighted by Bernard Manin (1997), processes of increasing international integration and interdependence (especially regarding the economy) have led to a *de facto* decrease of national autonomy in some policy sectors. This latter aspect has dramatic implications for political parties, as the limitation of national autonomy translates into a limitation of party autonomy for governing parties. It is hard to ignore that this puts into question one of the central mechanisms of party politics: the close link between *policies proposed during the campaign* and *policies actually pursued once in office*. In Manin's conceptualization, this – along with the increasing mediatization of politics – is leading to a transition from *party* to *"audience" democracy*. In this new idealtype of democracy, parties are less able to realize, once in office, specific policies proposed to voters during the campaign; they instead have to face rapid changes in external conditions, thus being forced to employ their *general ability and competence in handling the government* rather than fulfilling specific policy commitments.

The consequences of this transition for party competition are twofold, as we step back to the campaign period that precedes the elections. On the one hand, parties could be expected to downplay divisive issues in the campaign, especially in policy areas where external constraints will likely prevent strong action. As such, parties will probably insist more on their (and their leaders') *competence to handle the tasks of government*. On the other hand, *voters* themselves will decreasingly rely on the traditional, divisive issues that used to structure party politics in the golden age of party democracy; they will increasingly focus on the evaluation of *political leadership and competence*, and of more subtle features of the *political supply* in general.
The degree to which European democracies are moving towards this evolution (or *whether* they are doing so at all) is certainly questionable. Yet I suggest that it can be useful to provide conceptual tools that would allow measuring the evolution of this process. The goal of this paper is precisely to suggest possible conceptual tools for this task.

In particular, the point of departure for this paper lies in the impressive similarity between the evolution envisaged by Manin and the model of party competition proposed – in the early Sixties – by Donald Stokes, which introduced the theorization of *valence politics*. The use of the valence framework for the analysis of recent developments of Western European countries is not new (e.g. Clarke et al. 2004, 2009). Yet this paper aims to provide an innovative conceptualization in this regard, based on the idea that *positional* and *valence* issues are not separate worlds, but are

actually located on the same *continuum*; and that – due to this common nature – the role of issues for party competition can be understood with a single, more general approach.

This paper tries to argument the usefulness of the proposed tools through the following steps. After this introduction, the first section presents a review of three existing views of political issues, while the second section presents the general features of the proposed unified conceptualization – along with measurement considerations – leading to the operational definition of specific indicators. The third section is the first devoted to empirical analysis: it describes some defining features of the issue spaces of the 27 EU countries, by applying the new indicators to data from the comparative EU-Profiler 2009 project. The fourth section uses the same indicators to develop a model of party competition in the same countries, in order to explain variance in issue emphasis by the various parties. Conclusions follow.

1. Three views of political issues

A review of possible conceptualizations of political issues cannot start without mentioning the spatial framework proposed by Downs (1957). In its original formulation, the Downsean model suggested that voting behavior and party competition could be modeled at once, with reference to a spatial metaphor. Upon specific assumptions[1], the model hypothesized that *parties would compete by changing their policy position*: this dimensional motion (hence the sense of the spatial metaphor) would allow them to maximize votes by reaching the position of the *median voter*. The extension of such model to multiple dimensions eventually allowed even for the possibility of a Downsean framing of many political issues at the same time[2].

It could be said that the defining feature of the Downsean spatial framing is its focus on *disagreement on policy alternatives*. The spatial representation is a convenient metaphor for the presence of different preferences among voters regarding policy choices on a specific issue[3]: the fact that there *is* a voter distribution on the whole issue dimension implies that *different* policy choices are advocated within the electorate. In this case, spatial competition can take place, and parties – provided that the appropriate assumptions are met – will be rewarded by an increase of votes, as they move their proposed policy towards the equilibrium position (if such position exists)[4].

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[1] Whose most important were: that there was a *single* dimension of conflict (which was identified as the left-right dimension, concerning the intervention of the state in the economy); that the preferences of voters were single-peaked, so as to have a single preferred position for any voter on that dimension; that parties were only interested in the maximization of votes, and not in specific policy outcomes; that voters and parties had perfect information (Davis, Hinich and Ordeshook 1970).

[2] It must be noted, though, that this extension is far more problematic than could be expected, since Downs' provision of a single dimension of conflict was purportedly meant as an assumption to avoid Condorcet's paradox (Arrow 1951). A return to multiple dimensions (Davis and Hinich 1966; Davis, Hinich, and Ordeshook 1970) brings Condorcet's paradox back in, leading to the general absence of a single equilibrium point, unless under very demanding assumptions (Plott 1967).

[3] If we accept a Downsean framing of any political issue, leading to a multidimensional space posing the problems highlighted above.

[4] Empirical research has consistently shown that the predictive ability of the median voter theorem is quite limited (Fiorina 1974; Bullock and Brady 1983; Poole and Rosenthal 1984; Poole and Rosenthal 1985; Grofman, Griffin and Glazer 1990; Robertson 1976; Budge, Robertson and Hearl 1987; Budge and Farlie 1977; Budge 1994; Budge et al. 2001; Adams 2001). This result even led neo-Downsean scholars to carefully state all the necessary conditions for the validity of the theorem, which were found so restrictive to conclude that "although there are

It is probably this focus on disagreement over policy choices that led Donald Stokes (Stokes 1963) to introduce the *valence issues* framework, suggesting that not all political issues could be framed in spatial terms. By borrowing from social psychology[5], he suggested that it would be perfectly possible to imagine a "condition that is positively or negatively valued by the electorate" (373), in terms of the electorate as a whole. It is not difficult to imagine such conditions: we could think about the frequency distributions we could get by adding to a questionnaire a standard Likert agreement/disagreement scale on statements such as "The country would greatly benefit from a foreign invasion" or "In general, economic prosperity is preferable to recession".

Stokes observed that issues such as these could definitely not be framed in terms of *disagreement over policy choices*. Yet such issues are strongly present in political campaigns[6], therefore calling for an alternative conceptual framework. He suggested then that such specific *valence issues*, characterized by general *agreement*, led to a different mechanism of party competition. A party would not compete by changing its policy position[7]; it would instead compete by emphasizing (or hiding) the links between itself and specific conditions (*valence issues*) that are *positively or negatively valued by the electorate*; links that end up in attributing *positive* or *negative valences* to the party. As an example, a governing party in a period of economic success would clearly try to claim responsibility for this result, by trying to establish a link that would project on itself a positive *valence* on the issue of economic prosperity. In case of economic downturn, it would probably try to downplay its responsibilities in the handling of the economy.

Therefore, competition on *valence issues* follows different mechanisms than on *position issues*. In particular, there are at least two differences to highlight. First, as it is clear in the definition of *valence issue*, the ability to establish links with *imperative needs*[8] is clearly connected with the (perceived) *competence* of a party on a specific policy area: we could concisely say that, whereas competition on *positional issues* relies on *policy positions*, competition on *valence issues* relies on *competence evaluations*. This leads to a second consideration: while parties in general have (theoretically) full control over their policy position on an issue, they will have less control over their perceived competence. This latter stems from the *reputation* and *credibility* of parties: two features that are attributed by *voters* in response to party choices and behavior, not by a party itself.

(Contd.)

pressures in two-party competition for the two parties to converge, in general we should expect nonconvergence" (Grofman 2004).

5 In particolar, from Kurt Lewin's (1935) theory of personality, stating that the development of individual personality implies, at its very beginning, the attachment of *positive* or *negative valences* to objects (and other individuals) in the environment, based on the relation that the individual establishes between such objects and his *imperative needs*.

6 For instance, in the 1952 U.S. presidential campaign example provided by the author.

7 The absence of different policy alternatives is in the very definition of *valence issue*: "*position-issues … involve advocacy of government actions from a set of alternatives over which a distribution of voter preferences is defined … valence-issues … merely involve the linking of the parties with some condition that is positively or negatively valued by the electorate*" (Stokes 1963, 373).

8 I refer to this term, analogous to Lewin's original formulation, as a shorter expression for *a condition that is positively or negatively valued by the electorate*. 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). For a discussion of the translation of the original German term *Aufforderungcharakter* (used by Lewin) to *valence* see Marrow (1969). Stokes himself later recognized that *valence issue* was an obscure terminological choice (Stokes 1992, 143).

But there is another crucial point that has been underemphasized by the literature that has (successfully) employed the valence framework. In Stokes'words, "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 between position and valence issues based on theoretical considerations: in principle, any issue that is strongly divisive in a country could be completely uncontroversial in another.

In this latter case, it would be a *valence issue*: in presence of a full agreement on a policy to be pursued, parties would compete by presenting themselves as more *competent* for pursuing it effectively, therefore following the typical pattern of valence competition[9]. As a consequence, it becomes a question of interest to determine the level of agreement on a specific issue in a specific campaign, possibly highlighting how issues that we traditionally consider as positional could reach levels of *agreement* that make them more similar to valence issues[10].

A third conceptualization of political issues could be said to borrow elements from both approaches. It is proposed in the *saliency theory* approach (Budge and Farlie 1983). At the core of this approach is the notion of *selective emphasis*: parties do not actually engage in a comprehensive debate which would require them to state their proposed policy options on *all* issues; they rather privilege only issues that they deem favorable to their party.

But an even more insightful note emerges as the authors hypothesize what we could define a "second-stage" selective emphasis. Given that the issues examined are almost all *divisive* (therefore *positional*), it is clear that the policy space on such issues will imply inevitable trade-offs. This "second stage" selective emphasis emerges as parties – once they choose an issue – will only highlight *one side* of the trade-off, by carefully *hiding* that an increase of a particular benefit will decrease another. For example, traditional leftist parties would emphasize their preference for a larger and better welfare state, but would never mention at all that it would imply higher taxes. Symmetrically, conservative parties would emphasize their promise of lower taxes, carefully hiding that this would imply a substantial reduction of welfare state provisions.

A restatement of the saliency theory approach in Stokesian terms could claim that parties, by presenting voters only *half* of the actual issue, would try to transform *positional*, intrinsically *divisive* issues into conditions that are "positively valued" by the electorate, that is – *valence issues*. In this case, we should expect *competence* (rather than *position*) to become the main subject of competition. And this is precisely the key voting decision mechanism identified by Budge and Farlie: "party strategists assume … that electors make a clear connection between a certain party and *good* government performance on a particular issue" (25)[11]. Therefore, selective emphasis would be the tool that parties employ to activate a *valence* decision framework on an issue, in an attempt to escape the problematic tradeoffs implied by almost all policy choices.

The three aforementioned approaches show that we can distinguish among two different conceptions of party competition on political issues (with the third being a combination of the two). The two look different in *quality,* as they imply different terms of choice (policy trade-offs

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[9] This feature of the valence model is clearly in line with Lewin's statement that "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" (1935, 78).

[10] This point is developed in the next section.

[11] The cited statement (italics are mine) is at the core of the definition of *issue ownership*: parties can be said to *own* issues where they are generally perceived as more competent. It clearly evokes the valence framework: "*good* government performance" on a specific issue is definitely a non-positional, imperative need, that some parties are perceived to be able to fulfill more than others.

vs. imperative needs) and different competition tools for parties (*position* vs. reputation of *competence*). The saliency theory approach shows how one type of issue can be turned into the other only when it is strongly manipulated in its content (by actually removing half of the issue).

In the next section I will suggest instead an approach where the two types of issues are different only in *quantity*, being located on the same continuum. In this case, we will be able to identify "intermediate", *quasi-valence* issues combining the characteristics of both models. The key dimension for this framework will be the *empirically-determined* level of agreement envisioned by Donald Stokes in his original proposal.

2. The agreement-partisanship framework

In the previous section we have seen that, while most issues in most countries can be expected to be *divisive* (implying a positional competition framework), some of them – regarding conditions that are *positively valued by the electorate* – imply a different competition framework.

But, in theory, nothing would prevent a traditionally positional issue (e.g. the trade-off between size of the welfare state and level of taxation) from having – in a particular campaign and in particular circumstances – an extremely skewed distribution. We could for example think of a Welfareland example, where 95% of citizens would be favorable[12] to an increase in welfare state size – even with full knowledge that this would imply higher taxes. Or, on the other hand, we could imagine Freedomland citizens to be 95% favorable to a radical reduction of tax rates, even with full awareness that this would imply a drastic reduction in welfare services.

How would party competition look like in these two countries? Changing a party's position would have no effect, since there would not be any dimension to move on, given that almost the only viable policy would be the one advocated by 95% of citizens. In this case, this policy would become an *imperative need*, that is *a condition positively valued by the electorate* as a whole. Parties would try to present themselves as the most competent for achieving that goal – or they would try to downplay the issue, if they did not enjoy a good reputation on it. In other words, competition would take place according to the *valence* framework, despite the theoretically divisive nature of the issue. This is because the issue enjoys an extremely high level of agreement[13].

As a result, I suggest that, if we classify issues based on the level of *agreement* they enjoy in a specific electorate, *both positional and valence issues can be placed on the same dimension*. With "level of agreement" I suggest the simplest possible indicator: the percentage of citizens that lie on the "agreement" side of a scale measuring their position on a specific issue, regardless of the measurement scale[14].

A visual representation of the comparison between agreement and disagreement for several example issues is presented in Figure 1. At the leftmost extreme we find typical positional issues, which are strongly *divisive* in the electorate (a 50/50 balance). At the rightmost extreme there are instead typical valence issues, which are almost completely uncontroversial[15].

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[12] Assuming a dychotomic measurement of an issue.

[13] This example shows that, as an alternative to the *saliency theory* approach, a positional issue can become a valence issue even without losing any part of its content, just because of the distribution of citizens' preferences.

[14] This obviously poses problems for scales with an odd number of choices (that is, with a central, neutral position).

[15] Nothing would prevent us from measuring agreement on typical valence issues such as the provocative examples of the previous section. In this case we would expect to record almost 100% disagreement on the necessity of a

Figure 1 – The continuum connecting positional and valence issues
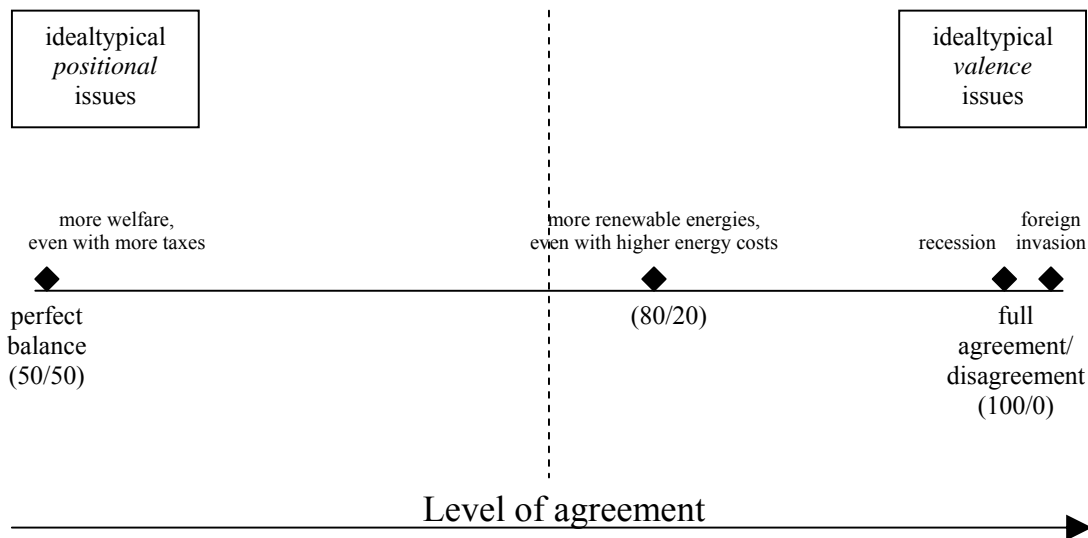
But the most important point is that we can easily imagine issues that enjoy a high (though not complete) level of agreement. Such issues will lie at some place in the continuum. Some of those issues could even lie closer to idealtypical valence issues than to idealtypical positional issues: I suggest that these can be called *quasi-valence* issues.

As an example, we can imagine a country with a two-party system, where a survey shows that a vast majority of citizens (say 80%) supports a strong promotion of renewable energies, even when this implies a rise in energy costs. It is clear that in this case positional competition will hardly take place, given that – within the electorate – the size of the issue space itself would be extremely restricted[16]. In this case the typical dynamics predicted by the valence approach (and by the saliency theory) would arise, with parties relying on their reputation of *competence* on the issue.

Given the content of the issue, we could guess that it could be most easily owned by the leftist party. Therefore, it will try to focus its campaign on it, while the rightist party will try to downplay it as possible. A more rigorous empirical measurement would imply polling citizens about which party they consider more competent on the issue. Yet I suggest an easier approach (especially when party competence evaluations are not present in a survey) for measuring the attribution of competence to a party on a specific issue, as well as for assessing the presence of *risks* and *opportunities* for a party in campaigning on a specific issue.

I suggest that, for this purpose, the *agreement* dimension can be complemented by the *partisanship* dimension, where this latter can be measured in terms of the presence of a relation between support for a party and support for a specific issue. This concept is best understood with reference to a dychotomized policy issue (agreement vs. disagreement) in the case of a two-party system: it is the case exemplified in Table 1.

(Contd.)

foreign invasion, and almost 100% agreement on the desirability of economic prosperity over recession. Still, policy alternatives could be defined on those issues as well. As an example, strong free-market supporters could advocate a lack of intervention in the recession, for it would imply a "natural selection" of more healthy companies.

[16]   This does not prevent the existence of a much wider theoretical issue space (e.g. including the positions advocated by interest groups), yet with many positions not supported by the electorate.

The table exemplifies a situation of a left party with 45% support (e.g. voting intentions in a survey) and a rightist party with 55% support. In the same survey, a statement such as e.g. "Renewable sources of energy (e.g. solar or wind energy) should be supported even if this means higher energy costs" enjoys a 80% level of support (respondents who agree with the statement). The table effectively summarizes the pattern of electoral risks and opportunities that such issue provides to the two parties. In particular, a key quantity of interest – for each party – is the level of *differential support* (over- or under-) compared to a *null hypothesis* of the issue being completely non-partisan.

This level of differential support can be easily computed by comparing observed and expected frequencies in the two top cells. This is because expected frequencies are, by definition, the frequencies that we would observe if there were no relationship between being leftist (or rightist) and supporting the issue. Were there no relationship, the 45% of leftists would support the statement at the same ratio (80%) observed in the overall electorate, thus we should observe .45 × .80 = .36 in the top left cell, and analogously .55 × .60 = .44 in the top right cell. We observe instead .45 and .35, which are respectively 9 points above and 9 points below the expected level of support. In other terms, this example issue is *oversupported* by 9 points within the left party, and *undersupported* by 9 points within the right party.

Table 1 – Party support and agreement with "Renewable sources of energy (e.g. solar or wind energy) should be supported even if this means higher energy costs" in an example two-party system

	Left	Right	Total
Agrees with the statement	.45	.35	.80
Disagrees with the statement	0	.20	.20
Total	.45	.55	

Since it is easy to show that – in this two-party case – the two levels of differential support always have the same value with opposite sign, we can concentrate only on the top-right cell to summarize the whole relationship. This strong undersupport for the issue within the rightist party shows that the issue is strongly *partisan*: its support is strongly correlated with party support.

All this information can be expressed in a visual representation that I will call the *agreement/partisanship* (briefly, AP) *diagram*. It is simply a two-dimensional plot of an arbitrary number of issues, where each issue has coordinates corresponding to its general level of *agreement* (on the *y* axis) and *partisanship* (on the *x* axis), where this latter is measured in terms of *differential support* in the top right cell. This diagram can also incorporate information regarding logical constraints for the maximum and minimum possible levels of partisanship, at any level of agreement[17]. An example AP diagram is shown in Figure 2, depicting the aforementioned "energy" issue along with two other example issues.

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[17] Such logical constraints can be easily identified. A first step is to identify the maximum and minimum possible values that we can observe in the top right cell. In this case, it is clear that we will never observe values above .55, since this is the level of support of the rightist party. There cannot be more rightist "welfarists" than there actually are rightists. For the same reasons, if the level of issue agreement were lower than .55 (the share of rightists), this would become a new upper limit, since there cannot be more rightist welfarists than welfarists *tout court*.

Let us first see how the visual features of the diagram express the connection between issue support an party support. First of all, the gray thicker lines are simply the visual representation of the maximum possible values for differential (over- or under-) support. Therefore, points representing issues (in short, issues) must lie within the diamond-shaped box. Given the equations of these lines[18], it can be shown that the *y* coordinate of the right corner of the diamond corresponds to the level of support of the right party (.55), while the *y* coordinate of the left corner of the diamond corresponds to the level of support of the left party (.45)[19].

In theory, both parties could potentially be interested in campaigning on the energy issue, as it could provide new votes above their existing level of support. On the other hand, this issue clearly lies on the *left* border of the diamond. This simply means that it has the *maximum possible* level of *undersupport* within the right party (and, conversely) the maximum possible *oversupport* within the left party. From this analytical formulation we can derive, as it is clear in Table 1, a result that has crucial consequences in political terms: *all leftist voters support the issue*.

It is clear that this latter formulation is much more interesting than the former, in political terms. For the leftist party there are no risks in campaigning on the issue since all its existing supporters already agree. But a campaign on this issue offers an opportunity for gaining new voters (potentially, up to the 80% that support the energy issue).

This point is even clearer in the comparison with an example "devolution" issue. This latter issue offers less opportunities for new votes (it is supported "only" by 58% of voters), but – most importantly – presents serious risks for the leftist party, which are best understood by looking at the diagram.

As the figure shows, the partisanship coordinate of this issue is 0. This has two implications: 1) support for this issue is completely unrelated with party support (observed and expected frequencies are equal); 2) on the *x* axis the devolution issue is about 20 points above the minimum (the left boundary of the diamond), meaning that 20% within the leftist party (almost half of the party, since its whole support is 45%) does *not* support the issue[20]. Therefore, campaigning on devolution would be extremely risky for the leftist party. This makes the energy issue much more appealing, as it offers more opportunities, and *no* risks.

The energy issue example is useful, as it highlights – by showing the properties of the boundary line – the connection between positional and valence issues, also allowing the placement of the *saliency theory* approach in the middle between the two. I would suggest that the boundary line is a privileged path for party competition. Let us see why.

(Contd.)

Regarding *minimum* possible values, we can quickly see that the observed .35 *is* already the minimum possible value. Even if all leftists support the issue, they are less than the overall support for the issue (.45 vs. .80), so there *must* be some rightist supporting the issue (at least .35, which is .80 − .45). We could only observe a value of 0 if leftists were at least as many as welfarists. In general, if we express support for the rightist party as *p*, support for the issue as *i*, and observed frequency in the top right cell as *f* (all expressed as proportions on the whole electorate), we can summarize the above as $\max(f) = \min(i,p)$; $\min(f) = \max(0, i - (1 - p))$.

[18] See the Appendix.

[19] Such shape highlights the connection between agreement and partisanship of an issue: the more agreement there is an issue (widespread support), the less it can be partisan.

[20] If all leftists would support the issue, it would lie 20 points more on the left.

Figure 2 - AP diagram of an example two-party system with three issues
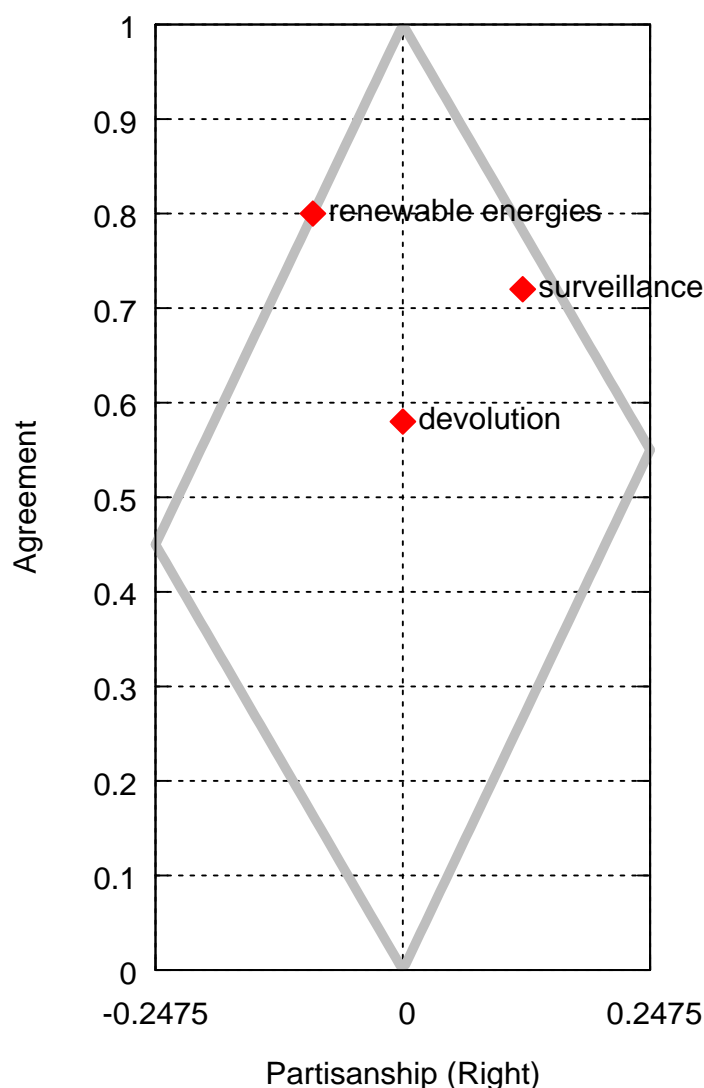
According to the very definition of the saliency theory, "[party leaders] seem to think that certain policy areas attract a net inflow of votes to the party when they become salient" (Budge and Farlie 1983, 24). Also, "party strategists assume … that electors make a clear connection between a certain party and good government performance on a particular issue" (25).

In terms of "net inflow", both the energy and devolution issues would provide a *net* inflow to the left party, for they could potentially raise its level of support to almost the same level. But regarding the connection between the party and a good performance on the issue, we could easily assume that the leftist party would be perceived as competent regarding the energy issue, and much less on the devolution issue[21]. Also, the increase of *risks* for parties of alienating existing

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[21] This assumption would be fully supported only with a more demanding condition: that *all supporters of an issue also support this party*. Nevertheless, the fact all supporters of a party support an issue (the case in Figure 2) can, in

supporters, when they campaign far from the boundary line, makes such line once more relevant for party competition strategies.

Finally, the convergence of the two boundary lines (for these two example parties) at the 100% agreement level shows the relationship between agreement and partisanship, and also how the shift from positional to valence issues can be seen as a continuous rather than as a discrete shift. As the issue agreement level increases, it is obvious that the partisanship of an issue will be constrained to decrease. If, in the same example two-party system, an issue is supported by 90% or 95% of the voters, it is inevitable that its can only have a very small partisan character (is so overwhelmingly supported by the electorate). And beyond this level we will find what could be called "pure" valence issues, which are supported by all voters. In this case, minimum and maximum partisanship will be constrained to be zero, leading to the impossibility to trace any connection between the issue and a particular party[22].

The features of the AP diagram generate clear hypotheses regarding party competition. We can expect that parties in general will try to privilege issues that are lying on (or extremely close to) their boundary line, as they will provide opportunities for vote gains, with zero or minimal risks of losing existing support. In the case of the rightist party, the "surveillance" issue (e.g. public incentives for private video surveillance cameras) could be a good candidate. Even though some rightist voters do not support the issue (it does not lie on the boundary line), the closeness of the issue to the boundary line still shows that the risk of losing existing supporters would be minimal, compared to the potential benefit.

Before moving to the conclusion of this section, one last comment is needed, regarding the extension from the two-party to the multi-party case. In my view, the most simple and most effective approach is to apply the AP diagram to party-issue crosstabulations where the party is dichotomized in terms of *one party* vs. *all the others*. In this case, the interpretation for the two-party case still holds, except for the fact that the term of comparison for a party is not its *specific* opponent (in a two-party system), but its *generic* opponent, in terms of what the party *is not*. In other words, while rightist strategists in a two-party system would deem an issue as "typically leftist", this would not be applicable anymore in a multi-party system, as support for an issue could be asymmetrically split among several "non-rightist" parties[23].

I finally recapitulate the concepts introduced in this section and the connected hypotheses, in order to outline the structure of the empirical testing conducted in the next sections.

1. A quantitative classification of issues is suggested, based on the *agreement* dimension, that allows to adopt a unified conceptualization encompassing positional and valence issues, by differentiating between them only in quantitative terms.

(Contd.)

my opinion, be employed as a good indicator that a party is perceived as competent on an issue, especially in absence of an explicit measurement of party competence.

[22] In this case, it becomes impossible to measure party competence with this method.

[23] In these terms, the difference is that the metric of the partisanship dimension is not anymore an *absolute* metric, encompassing all parties in a single, consistent system of coordinates, but rather a *relative* metric, assessing issues (and the distances between them and the party) in terms of the voters' base (thus, the identity) of the party itself. It can be arguable whether other metrics can be preferred to this (such as issue spaces, or the left-right dimension). My point is that this metric has some desirable properties. First, it can easily and understandably depict an unlimited number of issues, without problems of multidimensionality. Secondly, it can estimate party-issue distances using simple, scalar values (see the next sections). This could be a property of the left-right dimension as well; but the AP diagram offers the additional advantage that – at the cost of being party-specific – it fully adopts the point of view of a *specific* party. In this regard, my view is that this can be an useful choice for evaluating party strategies.

2. A second quantitative criterion is introduced, based on the *partisanship* dimension. In conjunction with the former, this offers additional information, in terms of risks and opportunities that issues offer to parties.

3. Regarding party strategies, I hypothesize that parties will privilege issues that maximize opportunities and minimize risks, therefore issues that lie as close as possible to their *boundary line*.

In the following sections I will first explore an empirical application of the suggested classifications, and then move on the testing of hypothesis 3)[24].

3. Agreement and partisanship in the 2009 European elections

This section moves to an empirical assessment of the suggested framework, by using data from the 2009 European Elections EU Profiler project. This dataset is peculiar, as the EU Profiler is a Voting Advice Application (VAA) that – during the election campaign – has collected more than 2 million profiles of Internet users, based on items concerning 30 issues, in all the 27 EU states (plus 3 non-members, not analyzed here).

Given the nature of VAAs, there is no real criterion of representativeness in the profiles provided. However, in this paper I will analyze a subsample of respondents[25], weighted by their preferred party[26], in order to have distributions on this variable match the final election result in each country. As such, despite the inability to draw rigorous inferences from this sample, it can serve as a useful test case, especially due to the numerous issues present in the EU Profiler questionnaire. The analysis is based on 28 of the 30 issues included in the questionnaire: it excludes the 2 country-specific issues. Actual item wordings are reported in the Appendix.

3.1. Issue agreement

The first question of interest is whether the proposed classification based on agreement makes sense empirically. Do we observe substantial variance in terms of agreement across issues and across countries? Are there really issues that enjoy a very high level of agreement, so that they can be considered as *quasi-valence* issues?

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[24] In this paper I do not fully explore other possibilities that are offered by this conceptualization and its dimensions of analysis. From the characterization of issues and party-issue relationships (in terms of agreement and partisanship), many other characterizations can emerge, regarding either parties or issues alone. In the former case, parties in multiparty systems can be characterized in terms of how much their based is polarized on issues (that is, whether they are *issue parties* or not), in terms of the distribution of their partisanship on several issues, e.g. weighted by the salience they assign to specific issues. Such indices could be also summarized at the national level, thus allowing comparisons of party systems in terms of issue polarization. Analogue criteria could be employed for issues, in terms of their being *cross-cutting* or *party-related*. Many other examples can be suggested.

[25] At most 2000 respondents were included for each country (or area, in those countries that were divided in more than one area, based on linguistic or party system criteria). See the Appendix.

[26] The preferred party variable was coded based on answers to a battery of PTV (propensity to vote) questions. Respondents giving a party a score above all others were coded as preferring that party. In order to maximize valid values, the preferred party was coded also for other respondents, using the following imputation procedure. The just-computed party preference was modeled with a binary logistic regression model including all PTVs, all party-respondent spatial distances, all party-respondent levels of issue agreement, all party-respondent levels of issue agreement weighted with respondent-level issue saliency. Predicted probabilities from this model were used to decide ties in PTVs and impute preferred parties. For respondents that did not answer PTV questions, the same procedure was repeated, removing PTVs from the independent variables in the model. See the Appendix.

Table 2 presents empirical evidence regarding such questions in the 27 EU countries, by reporting summary statistics for the level of agreement registered for each issue in each country[27]. The first two columns present, for each issue, the mean and the standard deviation of the 27 levels of agreement measured at the country level[28].

It is first clear that there is a substantial amount of cross-issue variation. Despite being the mean of 27 countries, values in the first column exhibit wide variance, ranging from a 0.33 supporting the bailout of failing banks with public money to 0.82 claiming that the country is much better off in the EU than outside it.

Coming to the empirical existence of *quasi-valence* issues, I suggest that an empirical definition can adopt a threshold of 75% agreement (or disagreement, that is, 25% agreement) to establish that an issue becomes less controversial, so as to foster the emergence of mechanisms that are typically observed on valence issues[29].

Based on this definition, the concept is already relevant at the aggregate EU level. Even considering the mean of the levels of agreement in the 27 EU countries, there are some issues where such mean is above 0.75: support for renewable sources (even implying higher energy costs), development of an EU common foreign policy, support for EU integration, and the perception that the country is better off in the EU than outside. It is remarkable that among these statements there are some that are expressed in terms that clearly imply a trade-off, or that link to inherently controversial issues. In other words, even these first EU-level means already show that it is not necessary that a controversial issue be deprived of half of its meaning, in order to reach the very high level of agreement of a quasi-valence issue[30].

This point becomes even clearer as we examine the third and fourth columns, which also give a clear answer in terms of cross-country variation. These columns report the counts, for each issue, of how many are the countries where this issue has level of agreement above 75% or below 25%. These counts clearly show that the concept of quasi-valence issue has a relevant discerning capacity: there is a clear presence of such issues in EU countries. Actually, *each of the 28 issues is a quasi-valence issue in at least one country* (counting both agreement and disagreement). This also applies to issues that are very divisive at the EU level, with overall means close to 0.5. There is even the case of the reduction of farmers'subsidies, which is a quasi-valence issue in two opposite directions, respectively in Bulgaria (disagreement) and Denmark (agreement).

Therefore, I would suggest that a classification of issues based on their level of agreement can make sense empirically, as it allows to highlight a substantial amount of variance, both across issues and across countries. Quasi-valence issues exist; they are not a tautological concept, as they are radically different in different countries, so that they can be succesfully used to characterize the issue space of a specific country.

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[27] All issues are measured using a standard 5-position Likert scale, which included a "neutral" central position. I operationalize agreement by first dichotomizing each issue (0=agree, 1=disagree), and then computing the country-level mean. Neutral values, rather than discarded, are coded as 0.5, with the effect of shrinking the levels of agreement or disagreement towards 0.5. This gives a conservative measure of the presence of quasi-valence issues.

[28] Levels of agreement for all issues in all countries are reported in the Appendix.

[29] This threshold can be justified as it splits the continuum shown in Figure 1 in two symmetric regions. Issues with agreement above 75% are closer to typical valence issues than they are to typical positional issues.

[30] One exception to this feature is the "increase creches" issue, whose wording did not link to any specific trade-off.

Table 2 - Level of agreement on issues in the 27 EU countries

		Agreement in the EU countries (N=27)		N countries where…	
		mean	SD	>= 0.75	<= 0.25
1	keep welfare	0.64	0.11	4	0
2	privatise healthcare	0.35	0.10	0	3
3	increase creches	0.73	0.12	15	0
4	attract skilled immigrants	0.64	0.10	2	0
5	restrict immigration	0.56	0.11	1	0
6	immigrants accept values	0.72	0.10	8	0
7	same sex marriages good	0.57	0.16	2	0
8	more respect for religion	0.38	0.12	0	5
9	legalise soft drugs	0.44	0.09	0	2
10	legalise euthanasia	0.66	0.10	3	0
11	reduce govt spending	0.67	0.12	7	0
12	tax powers for EU	0.36	0.12	0	6
13	bail out banks	0.33	0.10	0	7
14	reduce workers' protection	0.37	0.08	0	1
15	reduce farmers' subsidies	0.48	0.14	1	1
16	support renewable sources	**0.77**	0.09	16	0
17	promote public transport	0.65	0.11	5	0
18	fight global warming	0.62	0.12	2	0
19	restrict civil liberties	0.36	0.09	0	3
20	more severe punishments	0.75	0.09	15	0
21	EU one voice	**0.79**	0.08	20	0
22	strengthen EU defence	0.71	0.08	10	0
23	EU integration good	**0.80**	0.07	22	0
24	country better in the EU	**0.82**	0.08	23	0
25	enlarge EU to Turkey	0.37	0.08	0	3
26	more powers to EP	0.58	0.13	3	0
27	less veto power for EU states	0.55	0.12	2	0
28	referendum for new treaties	0.57	0.09	2	0

3.2. Issue partisanship

Coming to this second dimension, it must be first highlighted that it presents an additional level of complexity, since it regards not only issues, but issues * parties relationships. As such, it lends itself less to a direct presentation, unless some summary measures are introduced. I will focus on what can be defined as the overall *issue polarization* of a specific party. This indicator is best understood by referring to two empirical examples of AP diagrams, based on the EU Profiler dataset.

Figures 3 and 4 show the AP diagrams for PDL (Romania) and PSOE (Spain). Both diagrams share the same scale, and can then be directly compared[31]. For now, there is only one aspect of the diagrams that is relevant: the distance of issues from the central line of no partisanship.

It is clear that supporters of the PDL are not strongly different from the whole Romanian sample in terms of their agreement/disagreement on specific issues. Levels of differential support within the PDL are extremely low, meaning that the observed support is very close to the expected support under the null hypothesis. The situation is clearly different as we examine the PSOE: on many issues, support for the issue within PSOE supporters is strongly different from the mean levels of the whole sample. Differential support is clearly present.

A possible way to summarize these levels of differential support (partisanship) requires first to derive some *relative* measure of differential support that is independent of the overall level of agreement on an issue. This is because, as clear from the boundary lines shown in the diagram, an issue with 0.9 agreement will have a maximum possible partisanship that is much lower, compared to an issue with 0.5 agreement. Thus, the level of differential support for an issue (in absolute value) can be divided by its possible maximum (at its specific level of agreement), thus obtaining a relative index, always in the 0-1 range, regardless of the level of issue agreement. This relative differential support expresses how much an issue is over- or undersupported within a party, relatively to the maximum possible value. An issue on the central no-partisanship line will score 0; an issue on the boundary line will score 1.

Figure 3 - AP diagram for the PDL (Romania) - overall issue polarization is 0.09

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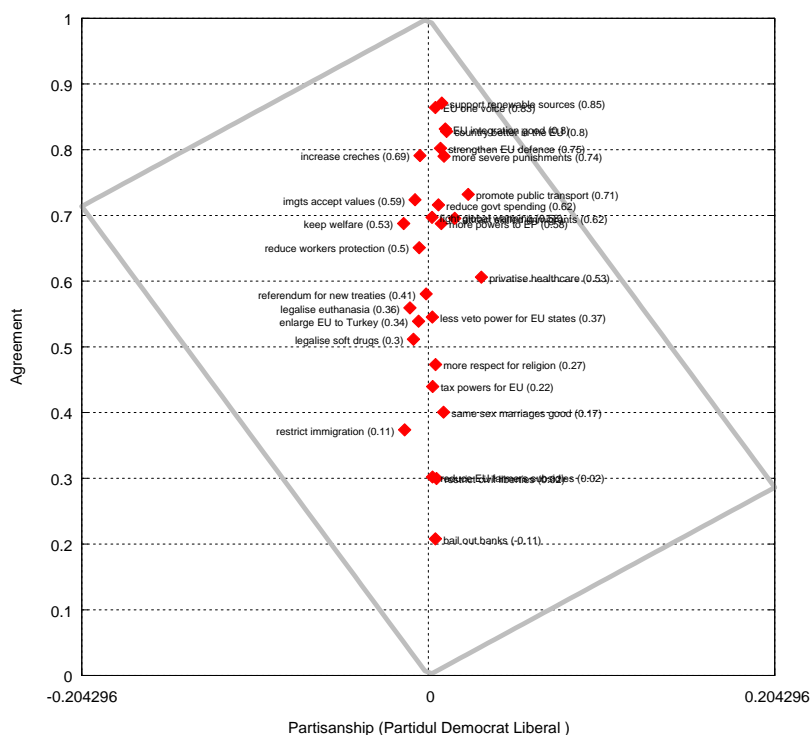
[31] The different width of the two charts is the consequence of using the same scale: since the two parties are of different size, their maximum possible level of differential support is different.

Figure 4 - AP diagram for the PSOE (Spain) - overall issue polarization is 0.42
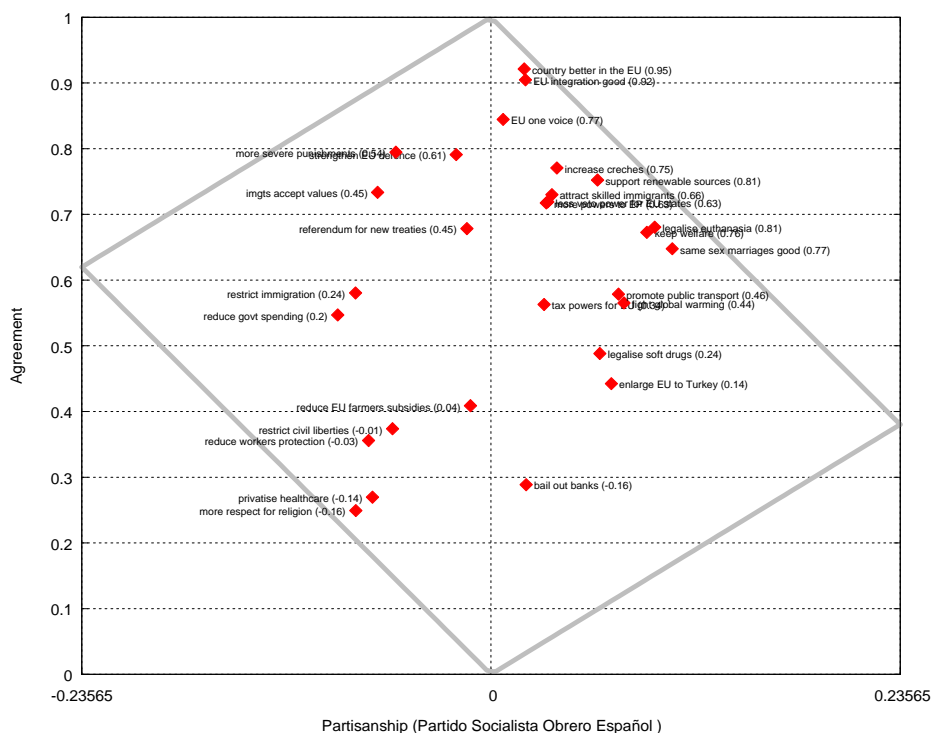
This measure can finally be averaged for all issues in a specific party[32]. This measure of *issue polarization* in a party will tell us how much, on average, issues enjoy differential support within a party. This index of issue polarization in the two latter examples assumes the values of 0.09 and 0.42 respectively, effectively capturing the differences between the two parties.

A very brief summarization of this variable is through the results of a multivariate analysis. In this case, on a matrix of 268 cases (parties within countries), I estimated a two-level model (parties nested within countries) of issue polarization of a party, based on party size and EU party family[33]. Also, cross-country variation is indirectly reported by the standard deviation of the constant across countries. The results of this analysis are presented in Table 3.

Compared to a two-level null-model, the amount of variance explained by party size and party family is remarkable, as the two variables account for about 25% of the variance[34]. The first result is that larger parties (despite the PSOE example) tend to have lower levels of overall issue

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[32] The choice to summarize on *parties* rather than on *issues* is motivated by the results of a variance-components analysis, whose results (not reported here) show that there is much more variation among *parties* than among *issues*. In other words, it's not issues that differ in how much they are correlated to parties; it is parties that differ in how much they have an issue-polarized voter base.

[33] Coded as follows: EPP-ED (centre-right), PES (centre-left), ALDE (liberal), UEN (national-conservative), G-EFA (greens), GUE-NGL (far left), ID (eurosceptic), all other parties. This last category was omitted from the analysis, serving as a reference category.

[34] R-squared is seldom reported in multi-level analyses. Yet its definition still applies to multi-level models, provided that the appropriate model is chosen for comparison. As in one of the possible definitions, values of R-squared reported here are based on the computation of the sum of squared residuals for a null model (the reference) and the full model.

polarization: their voter's base tends to be less strongly connotated on issues, compared to smaller parties.

Secondly, EU party family seems to be relevant for predicting how much a party's voter base will be polarized on issues. Parties belonging to EPP and ALDE have levels of polarization that are significantly lower than average; PES and UEN members are not significantly different, while parties belonging to Greens-EFA, GUE-NGL and Eurosceptic groups have levels of issue polarization that are significantly higher[35]. In this case, the presence of moderate or extreme positions on the left-right continuum could certainly be an underlying explanatory factor.

Table 3 - Effects of party size and party family on the issue polarization of a party's voter base, (two-level, country-party model)

	b	se
party size	-0.168**	(0.063)
EPP	-0.061**	(0.019)
PES	-0.027	(0.021)
ALDE	-0.054**	(0.020)
UEN	-0.022	(0.027)
Greens-EFA	0.058**	(0.021)
GUE-NGL	0.061**	(0.021)
Eurosceptic	0.105**	(0.032)
Constant	0.310***	(0.013)
SD of the constant among countries	0.033	
R^2 vs. a hierarchical null model (countries)	0.255	
R^2 vs. a EU-wide null model	0.416	
N (parties within countries)	268	

Finally, constants for individual countries are not widely dispersed, having a standard deviation of 0.033. This, in conjunction with the previous result (see note 33), seems to show that parties and their specific left-right positions are more relevant in influencing issue polarization than the issue content itself.

4. Testing hypotheses on party competition

Let us come finally to the empirical testing of the hypothesis on party competition that was introduced at the end of section 1. There I suggested that parties will privilege issues that offer opportunities at the lowest possible risks, therefore issue that lie as close as possible to the *boundary line*. And this not only derives from a minimization of risks, but from the assumption that the strong (or even full) support of an issue within a party can suggest that the party actively *owns* the issue (thus, being perceived as *competent* on it).

So, in principle, the *distance from the boundary line* could be the independent variable whose effect we would like to test. Yet, it can be hard to expect that, by campaigning on a specific issue,

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[35] Party size is controlled for, as it is included in the model.

a party will be able to secure the support of *all* voters that support the issue. We can rather hypothesize that only *some* of these voters will probably turn their attention to the party, possibly changing their vote choice. This means that the potential future electorate of the party will not become equivalent to the electorate that supports the issue: it will only become a little closer to it.

In geometrical terms, we can translate this hypothesis into a shift of the location of the party. If successful, the party will move closer to the location of the issue, *on the line that connects the two locations*. If a party could reduce, through the years, its whole identity to this single issue (and if voters would vote on this issue alone), we could in theory hypothesize that the party's electorate would finally land in this new location.

Thus, a campaign on an issue envisions a move of the party, on the line that connects its location to the location of the issue. A relevant consequence of this is that what matters most is not the *overall level* of agreement of an issue or, simply, the distance of an issue from the boundary line (both measure only the final destination). What matters most is the *slope* of the party-issue line. The more the slope is close to the slope of the boundary line, the less the party will have to move away from its voters[36], *regardless of its final destination*.

So the key independent variable whose influence will be tested will be the *relative slope of the party-issue line*. The term *relative* tells that the simple, geometric slope of this line is divided by its maximum possible value (the slope of the boundary line). As such, this relative indicator – graphically exemplified in Figure 5 – will be 1 when an issue is on the boundary line, and will be 0 when a party moves towards an issue that has the same level of support, (with a loss of some of its original voters). For the sake of brevity, I will define this relative index as the *issue yield*. This term expresses the potential gains of campaigning on an issue. An issue with yield=1 is characterized by only potential gains, without losses. Issues with lower values imply less potential gains.

The issue yield can be easily computed for any party-issue pair. If we define *p* as the share of respondents that support a party, *i* the share of respondents that agrees on an issue, and *f* the share of respondents that support the party and agree on the issue, it can be shown[37] that issue yield is:

$$L = \frac{p(p-i)}{f + p(p-(1+i))}$$

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[36] This virtue of the boundary line echoes the mechanism envisioned by Stokes regarding valence issues: "Part of the appeal of valence-campaigning to the electoral strategists is that an artfully chosen valence issue need not cost any votes" (Stokes 1992, 158).

[37] See the Appendix.

Figure 5 - Lines with different values of issue yield in the PSOE example
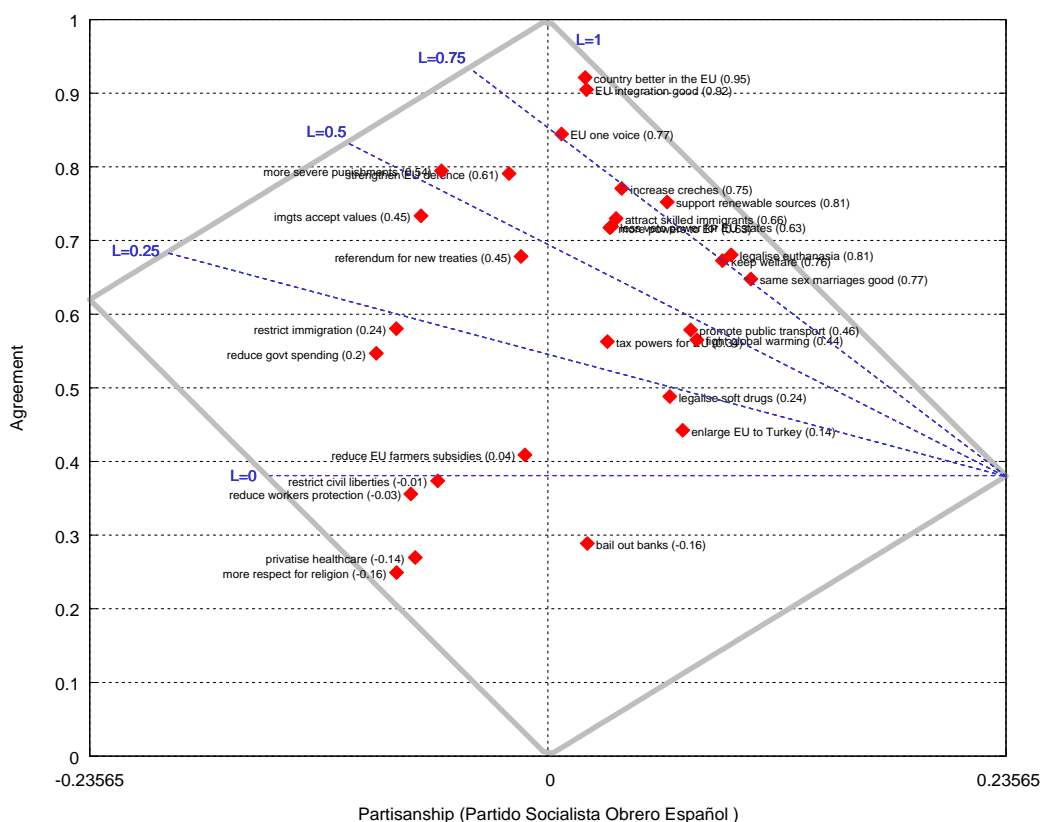
Coming to the dependent variable, an ideal choice would be to use issue saliency information derived from manifesto or media data. Yet this choice is not possible, as such data is not available for the 2009 EP elections for all countries involved. Also, such choice would probably create serious problems due to the unrepresentativeness of the sample. It could be likely that the salience hierarchies of the parties would not necessarily apply to the perceived saliency in the analyzed sample. This is why I necessarily have to recur to *perceived saliency*[38]. As such, the dependent variable is the perceived saliency of an issue within strong supporters of a party, under the assumption that this perceived saliency will be highly correlated with the saliency assigned by the party in its communication.

The analysis is structured as follows. The dataset includes 5956 cases (parties * issues). First, rival multivariate three-level models of issue saliency are tested, comparing L with other indicators of issue opportunities and risks, in order to test whether L really conveys more information than simpler measures. Secondly, the resulting model will be compared with a rival

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[38] The operationalization of perceived saliency is based on the following procedure, given that profiles in the EU Profiler dataset also included saliency assessments of all issues at the individual level. First, within all party supporters, a smaller base of strong supporters was identified: only respondents who assigned a PTV of 10 to only one party. Then, for all supporters of a party, the mean of the logs of the perceived saliency was computed. Logs are used because respondents were presented three choices ("-", "=", "+"), coded respectively as 0.5, 1 and 2. This final mean of the logs – the log of the average perceived saliency of the issue for party supporters – is the dependent variable.

model derived from the spatial Downsian model: that parties campaign on issues *where their position is closer to that of the median voter*[39]. Finally, some relevant interactions will be discussed.

The first step of the analysis is to set up a baseline model, to serve as a reference for subsequent models including more variables. The baseline model is a three-level model where the lowest-level observations (party-issue pairs) are nested within issues, which are in turn nested within countries[40]. Party size and EU party family are incorporated as control variables.

The results are presented in Table 4. This first model shows that the hierarchical structure of the data already accounts for an important portion of the variance observed in issue saliency. Compared to a EU-wide null model[41], the hierarchical null model already shows an R-squared of 0.434 (AIC= –514.39, BIC= –487.62, with N=5956), meaning that country heterogeneity, issue heterogeneity and their combination alone account for about 43% of the observed variance in issue saliency. However, subsequent models will take this *hierarchical null model* as a reference, rather then the EU-wide null model. Using this new reference, which I will later refer to as model 0, the above control variables (party size and family) lead to an initial R-squared of only 0.004, showing very small significant effects.

The first question that I want to address regards the usefulness of *issue yield* L as an indicator, compared to *i* and *f*. As noted above, the definition of L, derived from logical and graphical considerations, provides a complex, non-linear combination of *p*, *i*, and *f*. In order to determine whether this complexity is worth the effort, I compare two rival models. Model A is simply model 0 (which already includes *p*) plus *i* and *f*; thus it expresses the information contained in a linear combination of *p*, *i*, and *f*. Model B is instead model 0 plus L; it expresses the information contained in a specific *non-linear* combination of *p*, *i*, and *f* (the definition of L). The results of the comparison of these two models (along with another model discussed later) are also presented in Table 4.

The results of the comparison show that the logical information contained in the definition of *L* adds a significant amount of knowledge regarding the empirical data in the analyzed sample. L conveys substantially more information than the simple linear combination of *p*, *i*, and *f*: compared to the reference model including only the control variables, model B explains an amount of variance that is significantly higher than model A (R-squared of 0.234 compared to 0.076).

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[39] To some extent, this can be seen as a hypothesis that cannot be derived from the Downsian model in a multiparty system, since the median voter theorem is no longer valid in such a system. Yet it is still possible that the structure of specific issue dimensions – taken one at the time – presents distributions of voters (and party positions) that can still be analyzed according to the median voter hypothesis.

[40] The reverse nesting order yields very similar results, yet with a slightly lower amount of variance explained.

[41] Where the saliency of each issue is predicted with the *grand mean* of the saliencies of all issues in all countries.

Table 4 - Comparison of rival models of issue emphasis

	Base model		Model A		Model B		Model C	
	b	se	b	se	b	se	b	se
p (party size)	(omitted)		(omitted)		(omitted)		(omitted)	
party family	(omitted)		(omitted)		(omitted)		(omitted)	
L (issue yield)					0.684***	(0.017)	0.658***	(0.018)
i (issue agreement)			0.185***	(0.030)				
f (share supporting the party and the issue)			1.896***	(0.092)				
d (Downsean, party-median voter distance)							-.0633***	(0.012)
Constant at the lowest level	0.203***	(0.009)	0.104***	(0.020)	-0.191***	(0.013)	-0.156***	(0.014)
SD of the constant at the issue level	0.151		0.132		0.151		0.147	
SD of the constant at the country level	0.023		0.018		0.013		0.014	
AIC	-462.18		-1064.53		-1810.08		-1824.19	
BIC	-381.88		-970.84		-1723.08		-1730.50	
R^2 vs. the hierarchical null model	0.004		0.076		0.234		0.232	
R^2 vs. the EU-wide null model	0.436		0.477		0.566		0.565	
N	5956		5956		5956		5956	

As a result, I suggest that L can be considered, compared to *i* and *f*, as a more useful predictor of the salience that a party will assign to a particular issue: a predictor that performs much better than, simply, the overall agreement on the issue (*i*), combined with the level of support for the issue within the party (*f*). This first result acts as a confirmation that a unified conceptualization of issues implying the AP diagram has useful implications for the analysis of party competition.

But this result can be confirmed even more strongly, as we try to compare Model B with a model that includes features related to the traditional, Downsean spatial model of party competition. Model C includes an additional variable *d*, which is based on the comparison between the position adopted by the party on the specific issue[42], and the position of the *median voter* on the issue, in that specific country. The hypothesis underlying this choice is that a party enjoying a Downsean advantage on a particular issue should have an incentive in emphasizing it during the campaign, as it could result in an electoral benefit. The negative effect estimated for variable *d* in model C confirms this hypothesis: the lower the distance from the median voter, the higher the emphasis of the party on the issue. Yet there are two aspects that are perhaps surprising. The first is that the effect is small, amounting to less than one tenth of the effect of L. The second, closely connected to the first, is that the addition of *d* does not increase the amount of variance explained by the model[43]. In other words, Downsean information about this party-issue relationship does not add anything to our prediction of issue saliency, once that L is already in the model.

This result must not be misinterpreted, by concluding that positional competition has no relevance in the sample examined. This is because L *already subsumes a vast amount of positional information* about the party and its relationship with the issue. L still expresses spatial information, regarding the closeness of the party to the issue, though in a metric that is not coincident with the specific issue dimension. Yet such metric still has features that are inherently

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[42]   In the EU Profiler project, parties were asked to declare their positions on all issues. Where parties failed to do so, their positions were coded based on manifesto and media data.

[43]   AIC and BIC report a slight improvement in the model, while R-squared becomes actually a little lower.

positional, because the extent to which supporters of the party overlap with supporters of the issue (what is actually expressed by L) is a piece of strongly positional information[44]. The correct interpretation of the result is thus that L also conveys spatial information, and in this regard is still suggests that a unified conceptualization can make sense: the information provided in the AP diagram is able to summarize both *positional* and *quasi-valence* features determining issue emphasis.

It is now of interest to examine a final model, which does not include the above alternative indicators for the aforementioned reasons, but rather specifies with more detail the influence of L, by including its interactions with some key variables. These variables are the following: issue agreement *i* (along with its main effect), party size *p* and party family. This last model, presented in Table 5, finally lends itself to a substantive discussion.

The first result is that the main hypothesis emerging from the AP diagram is confirmed. L has a large, significant effect, meaning that *parties place a higher emphasis on issues that lie closer to the boundary path*. As we have seen previously, this criterion outperforms both spatial features such as the closeness of the party position on the issue to the median position, and other features such as the general agreement on the issue, or the amount of support for the issue within the party.

Yet this general result can be further specified, as we examine the interactions that several other variables have with this explanatory factor[45]. In general, I suggest that interactions with L should be interpreted as *different competitive attitudes* regarding the use of political issues in campaigns. A positive interaction with L (thus, a higher slope of L) should suggest a *more aggressive* campaign style, where the presence of potentially more productive issues is more actively exploited by a party. On the opposite, a negative interaction (thus, a lower slope of L) would suggest a *more conservative* style, where party management is ignoring to a larger extent the presence of issues that could have a higher yield.

The first variable I examine is party family. Do different party families adopt different strategies towards the use of high-yield issues in their campaign? The results show that there is a positive answer to this question: some party families are differentiated in this regard, to a statistically significant extent. Compared to the reference category (other, unclassified parties) the two largest party families (EPP and PES) do not show a significantly higher sensitivity to issue yield; this also applies to the GUE-NGL family[46]. All other families show instead a more aggressive style, placing even higher saliency on higher-yield issues. This applies, in order of strength of effect, to the ALDE (.082*), to the Greens-EFA (.104**), to the UEN (.123*), and most notably to the Eurosceptic category (.168*). These are parties which show a sensitivity to issue yield that is higher than average.

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[44] It is true, however, that the positional information subsumed in L is simplified, since positions are only coded as 0, 0.5 or 1 in the original computation of *i*.

[45] Except obviously for L, I omit the actual coefficients for the constitutive terms (main effects). Brambor, Clark, and Golder (2006) suggest that the correct interpretation of such constitutive terms is not as a main unconditional effect, but simply the effect of the variable when the other interacting variable is 0. According to this interpretation, the values of such terms simply confirm the interpretation that I will provide for the specific interactions. This is even more strongly confirmed by the fact that in the base model shown before, where party size and family where included without interactions and without information on issues, such main unconditional terms had no almost no significant effect. The actual coefficients omitted from Table are: party size 0.799*** (0.063); EPP -0.058** (0.021), PES -0.053* (0.022), ALDE -0.104*** (0.023), UEN -0.078* (0.031), Greens-EFA -0.106*** (0.023), GUE-NGL -0.042 (0.024), Eurosceptic -0.113** (0.037); issue agreement -1.153*** (0.055).

[46] Such effects cannot be spurious effects of party size, which is already controlled for.

Table 5– Three-level random-intercept model of issue emphasis, based on L and its interactions with various variables

	b	se
p (party size)	(omitted)	
party family	(omitted)	
i (issue agreement)	(omitted)	
L	0.420***	(0.074)
L * EPP	0.054	(0.036)
L * PES	0.025	(0.037)
L * ALDE	0.082*	(0.039)
L * UEN	0.123*	(0.053)
L * Greens-EFA	0.104**	(0.038)
L * GUE-NGL	0.037	(0.041)
L * Eurosceptic	0.168*	(0.066)
L * party size	-0.566***	(0.104)
L * i	0.998***	(0.096)
Constant at the lowest level	0.267***	(0.033)
SD of the constant at the issue level	0.130	
SD of the constant at the country level	0.020	
AIC	-2301,47	
BIC	-2147,55	
R^2 vs. the hierarchical null model	0,279	
R^2 vs. the EU-wide null model	0,592	
N	5956	

The second examined interaction is party size. The effect for this interaction is even stronger than the main effect of L, and highly significant. A first look at the coefficient simply suggests that larger parties pay much less attention to issue yield, and that this effect could even nullify the effect of L, so as to make large parties completely indifferent to issue yield. It must be noted, though, that the two variables have different empirical ranges. In the observed sample, issue yield has values in all the theoretically possible 0-1 range (we already saw some examples in the previous figures); on the contrary, party size (measured as party share, so in the 0-1 range), has almost no values above 0.5, and it is even theoretically difficult to imagine a vote share above 0.6-0.7 at the national level in Europe. It then makes sense to interpret the interaction by referring to example values corresponding to meaningful party shares. In this case, the interaction coefficient tells us that, if we examine two parties (of the same party family) obtaining respectively 10% and 40% of votes, the sensitivity to the yield of the same issue will be 0.17 lower (-.566 * 0.3, where this latter term is the difference in vote share between the two parties). The estimated effect, then, is much weaker than it appears from the coefficient.

This latter claim is even more strongly supported by the examination of the last coefficient, which shows the interaction between issue yield and issue agreement. This coefficient could be interpreted as the increase in emphasis for two issues that lie on the same party-issue line, yet

with different levels of overall agreement. The effect is extremely strong, providing a confirmation for the *quasi-valence* issue model of party competition. Not only parties place higher saliency on issues that lie on their boundary line (these issues avoid any risk of losing existing supporters), but – among these latter –they will place more saliency on issues that enjoy a higher agreement in the whole electorate.

It must be then noted that this final model reaches a remarkable amount of variance explained, showing that the information summarized in the AP diagram captures a substantial amount of variation in issue emphasis.

Also, in my opinion the analysis also suggests some remarks regarding the substantive results. In general terms, the substantive conclusions suggested by the model do not seem theoretically implausible, despite the strongly non-representative nature of the analyzed sample and the arguable use of *perceived saliency*. These caveats specified, the results of the model are not far from reasonable expectations. The advantages provided by high-yield issues seem to exert a significant effect on issue saliency, with the moderating role of party family and party size, and an additional interaction of general issue agreement.

The result that large parties have a campaign style that is less aggressive than small parties is consistent with the literature highlighting the natural pressure for parties to *cooperate* rather than *compete*, especially when they have a large, stable parliamentary presence and frequent opportunities to assume government responsibilities. This latter aspect could also easily justify a more conservative approach, due to the presence of much more stable links with interest groups. It would be no wonder then, that – despite its very high yield – a large, governing party could perfectly ignore the energy issue, given that an emphasis on it would endanger relationships with important interest groups. And conversely it would be no wonder that a small, aggressive Green party would build its whole campaign on it.

5. Conclusions

This paper started by suggesting how two rival frameworks for the analysis of political issues (in the context of party competition) could potentially be encompassed in a single, overarching (necessarily more general) conceptualization. Such new framework is not abstract or generic, as it is able to derive specific empirical predictions about the saliency that parties assign to issues during their campaign.

First, all conclusions based on the presented evidence have to be framed in the context of a non-representative sample. Nevertheless, one of the main results that I would like to stress is about the presence of *variance*, which is the first important test when testing indicators, and which could hardly – in my opinion – be considered as an artifact of a non-representative sample. In this regard, the conclusions are encouraging.

On the agreement dimension, issues show an interesting amount of both cross-country and cross-issue variance. *Quasi-valence* issues exist, as several issues have very high level of agreement; and their presence is distributed across different issue areas and political orientations (from renewable energies to tough attitudes on crime, etc.). Regarding the partisanship dimension, there is also substantial variance, as different parties show marked differences in how their voters differentially support specific issues. Predictors of the issue polarization of parties show results that could be substantively expected: party family and size have a relevant influence on the issue polarization of a party.

Coming to the specific indicator deriving from the AP diagram – issue yield – there are first some conceptual remarks. In general terms, issue yield outperforms alternative indicators of the features reported in the AP diagram, showing that the specific information introduced by the diagram is empirically relevant. Also – in rival model testing – it drastically reduces the influence of traditional Downsian predictors, showing that the concept of issue yield actually subsumes information regarding both the positional and the valence aspects of issue competition.

Finally, the main hypothesis deriving from the AP diagram – that higher-yield issues will be more salient – is substantially confirmed by the analysis: parties supporters perceive as more salient issues that have a higher issue yield. Under the assumption that the saliency hierarchy of party supporters mirrors the hierarchy introduced by party strategists, we can derive a partial confirmation of the hypothesis that issue yield is a good predictor for issues that will be selected during a campaign.

Therefore, in my opinion, the results presented show that the AP framework could prove useful in empirical analysis. Further confirmation of these results is definitely needed on more representative datasets: yet I would conclude that the concepts introduced can serve as useful guides for empirical analysis.

6. Appendix

Table 1 - Actual wording of the 28 EU Profiler issues included in the analysis

1	Social programmes should be maintained even at the cost of higher taxes
2	Greater efforts should be made to privatise healthcare services in [country]
3	State subsidies for crèches and child care should be increased substantially
4	Immigration policies oriented towards skilled workers should be encouraged as a means of fostering economic growth
5	Immigration into [country] should be made more restrictive
6	Immigrants from outside Europe should be required to accept our culture and values
7	The legalisation of same sex marriages is a good thing
8	Religious values and principles should be shown greater respect in politics
9	The decriminalisation of the personal use of soft drugs is to be welcomed
10	Euthanasia should be legalised
11	Government spending should be reduced in order to lower taxes
12	The EU should acquire its own tax-raising powers
13	Governments should bail out failing banks with public money
14	Governments should reduce workers' protection regulations in order to fight unemployment
15	The EU should drastically reduce its subsidies to Europe's farmers
16	Renewable sources of energy (e.g. solar or wind energy) should be supported even if this means higher energy costs
17	The promotion of public transport should be fostered through green taxes (e.g. road taxing)
18	Policies to fight global warming should be encouraged even if it hampers economic growth or employment
19	Restrictions of civil liberties should be accepted in the fight against terrorism
20	Criminals should be punished more severely
21	On foreign policy issues, such as the relationship with Russia, the EU should speak with one voice
22	The European Union should strengthen its security and defence policy
23	European integration is a good thing
24	[country] is much better off in the EU than outside it
25	The European Union should be enlarged to include Turkey
26	The European Parliament should be given more powers
27	Individual member states of the EU should have less veto power
28	Any new European Treaty should be subject to approval in a referendum in [country]

Table 2 - Number of: all respondents; strong party identifiers; respondents with a preferred party at various stages of imputation; respondents answering validly to all issues. Figures by area.

Area	N original[a]	N sampled	Preferred party imputation				Valid answers on all issues
			A	A+B	A+B+C	A+B+C+D	
Austria	13628	2000	591	1151	1523	1774	1664
Belgium: Dutch-speaking electoral college	20353	2000	639	1151	1646	1819	1637
Belgium: French-speaking electoral college	40861	2000	598	1161	1700	1864	1631
Bulgaria	6319	2000	671	1142	1611	1820	1658
Cyprus	1237	1237	558	871	1061	1149	988
Czech Republic	7175	2000	611	1268	1699	1835	1585
Denmark	2040	2040	569	1018	1484	1718	1576
Estonia	1627	1627	433	845	1137	1383	1262
Finland	5065	2000	675	1080	1540	1843	1588
France	48853	2000	593	1012	1568	1841	1709
Germany	98644	2000	485	1010	1649	1747	1643
Greece	8926	2000	751	1271	1709	1904	1626
Hungary	6622	2000	887	1371	1771	1903	1728
Ireland	4845	2000	636	1154	1639	1835	1743
Italy	51947	2000	571	1354	1765	1899	1657
Latvia	974	974	226	486	721	871	771
Lithuania	1836	1836	655	1027	1365	1606	1309
Luxembourg (DE)	1019	1019	301	526	789	870	855
Luxembourg (FR)	1411	1411	374	645	1013	1186	1200
Luxembourg (LU)	555	555	152	270	393	471	424
Malta	389	389	197	273	309	348	302
Poland	31389	2000	810	1403	1833	1919	1578
Portugal	80408	2000	645	1181	1622	1759	1645
Romania	1678	1678	398	853	1177	1466	1431
Slovakia	731	731	158	371	522	631	619
Slovenia	1895	1895	587	983	1443	1634	1618
Spain	24576	2000	711	1376	1765	1868	1711
Sweden	225651	2000	562	1021	1525	1760	1300
The Netherlands	194287	2000	357	883	1388	1688	1646
UK: England	36957	2000	527	1045	1517	1821	1641
UK: Northern Ireland	640	640	186	359	472	568	539
UK: Scotland	3055	2000	634	1151	1643	1851	1622
UK: Wales	732	732	262	437	578	666	618
	926325	54764	17010	32494	45454	51637	44522

[a] Only respondents who completed the test in more than 240 seconds.

A: based on PTV, one party was ranked first with the maximum score (strong identifiers).
B: based on PTV, one party was ranked first.
C: when PTV tie between 2 parties, decided by computing predicted probabilities from a binary logistic model of preferred party in A, based on PTVs, distances, and other variables.
D: when PTV missing, decided by computing predicted probabilities from a linear model of PTVs, based on distances and other variables.

Table 3 - Levels of agreement on issues in the 27 EU countries, listed by country size and geographical region. Values above 0.75 or below 0.25 are highlighted.

	keep welfare	privatise healthcare	increase creches	attract skilled immigrants	restrict immigration	imgts accept values	same sex marriages good	more respect for religion	legalise soft drugs	legalise euthanasia	reduce govt spending	tax powers for EU	bail out banks	reduce workers' protection	reduce EU farmers' subsidies
Germany	0.66	0.36	**0.77**	0.58	0.61	**0.89**	0.69	0.34	0.42	0.64	0.70	**0.20**	0.31	0.37	0.67
France	0.74	**0.19**	**0.76**	0.50	0.44	0.57	0.66	**0.25**	0.45	0.74	0.53	0.56	0.35	**0.22**	0.49
UK	0.56	0.32	0.53	0.72	0.62	0.74	0.69	0.36	0.52	0.65	0.59	**0.23**	0.39	0.36	0.69
Italy	0.63	0.32	**0.82**	0.74	0.67	0.71	0.49	0.44	0.43	0.66	0.72	0.61	0.30	0.43	0.43
Spain	0.67	0.27	**0.77**	0.73	0.58	0.73	0.65	**0.25**	0.49	0.68	0.55	0.56	0.29	0.36	0.41
Poland	0.47	0.62	0.68	0.69	0.41	0.61	0.33	0.37	0.43	0.50	0.71	0.42	**0.21**	0.39	0.42
Romania	0.69	0.61	**0.79**	0.70	0.37	0.72	0.40	0.47	0.51	0.56	0.72	0.44	**0.21**	0.65	0.30
Czech Republic	0.43	0.45	0.66	0.71	0.56	0.70	0.66	0.37	0.48	0.70	0.73	**0.20**	0.27	0.45	0.53
Hungary	0.38	0.34	**0.81**	0.38	0.61	**0.91**	0.26	0.64	0.30	0.55	**0.90**	0.40	**0.20**	0.35	0.30
Bulgaria	0.51	0.50	**0.90**	0.46	0.62	0.55	0.36	0.65	0.30	0.65	**0.79**	0.38	**0.21**	0.30	**0.17**
The Netherlands	0.70	0.26	0.37	0.55	0.70	**0.84**	**0.81**	0.39	0.58	**0.89**	0.59	**0.20**	0.59	0.50	0.61
Belgium	0.65	**0.24**	0.70	0.57	0.67	0.71	0.71	0.34	0.40	**0.89**	0.71	0.44	0.43	0.39	0.46
Ireland	0.65	0.35	0.56	0.73	0.58	0.66	0.69	0.31	0.47	0.56	0.54	0.28	0.34	0.35	0.54
Portugal	0.66	0.32	**0.86**	**0.76**	0.63	0.55	0.53	0.48	0.50	0.73	**0.80**	**0.20**	**0.19**	0.35	0.31
Greece	**0.80**	0.33	**0.94**	0.54	0.70	0.62	0.47	0.53	0.49	0.60	**0.78**	0.43	0.26	0.40	0.29
Finland	0.72	0.41	0.56	0.73	0.50	**0.83**	0.68	**0.25**	0.43	0.67	0.48	0.28	0.39	0.40	0.52
Sweden	0.61	0.35	**0.79**	0.69	0.53	0.71	0.72	**0.23**	**0.22**	0.65	0.52	**0.24**	0.40	0.42	0.68
Denmark	0.69	0.31	0.60	**0.75**	0.42	0.71	**0.82**	0.31	0.51	0.69	0.43	0.27	0.50	0.38	**0.75**
Austria	0.68	0.29	0.72	0.63	0.62	**0.87**	0.64	0.33	0.44	0.63	0.68	0.31	0.41	0.33	0.55
Estonia	0.66	0.30	**0.75**	0.48	0.44	**0.80**	0.48	0.33	0.34	0.70	**0.75**	0.48	**0.22**	0.28	0.39
Latvia	0.66	0.39	**0.79**	0.71	0.48	**0.77**	0.45	**0.21**	0.46	0.69	0.72	0.37	0.34	0.38	0.45
Lithuania	0.62	0.37	0.74	0.64	0.60	0.73	0.31	0.51	**0.25**	0.67	**0.85**	0.41	0.28	0.31	0.46
Slovakia	0.44	0.43	0.71	0.64	0.44	0.68	0.49	0.33	0.49	0.57	0.69	0.30	**0.24**	0.36	0.52
Slovenia	**0.78**	0.27	**0.75**	0.71	0.56	0.72	0.60	0.29	0.50	0.63	**0.82**	0.41	0.37	0.32	0.54
Luxembourg	**0.76**	**0.22**	0.69	0.67	0.46	0.74	0.73	0.27	0.49	**0.77**	0.53	0.32	0.43	0.31	0.50
Cyprus	**0.80**	0.41	**0.89**	0.68	0.61	0.62	0.54	0.43	0.51	0.61	0.58	0.40	0.33	0.49	0.40
Malta	0.66	0.32	**0.79**	0.52	**0.80**	**0.78**	0.45	0.51	0.44	0.45	0.65	0.35	0.48	0.27	0.46

Table 4 - Levels of agreement on issues in the 27 EU countries, listed by country size and geographical region (continued). Values above 0.75 or below 0.25 are highlighted.

	support renewable sources	promote public transport	fight global warming	restrict civil liberties	more severe punishments	EU one voice	strengthen EU defence	EU integration good	country better in the EU	enlarge EU to Turkey	more powers to EP	less veto power for EU states	referendum for new treaties
Germany	0.73	0.50	0.57	0.28	0.70	**0.78**	0.65	**0.78**	**0.83**	**0.23**	0.53	0.63	0.58
France	**0.81**	**0.79**	0.73	0.33	0.53	**0.82**	0.69	**0.81**	**0.85**	0.40	**0.76**	**0.76**	0.63
UK	0.70	0.58	0.54	0.29	0.70	0.54	0.53	0.60	0.62	0.43	0.33	0.41	**0.76**
Italy	**0.80**	0.60	0.55	0.45	**0.87**	**0.87**	**0.83**	**0.88**	**0.87**	0.40	**0.76**	0.72	0.44
Spain	**0.75**	0.58	0.57	0.37	**0.79**	**0.84**	**0.79**	**0.90**	**0.92**	0.44	0.72	0.72	0.68
Poland	0.66	0.37	0.41	0.44	**0.81**	**0.90**	**0.80**	**0.86**	**0.85**	0.44	0.50	0.45	0.53
Romania	**0.87**	0.73	0.70	0.30	**0.79**	**0.86**	**0.80**	**0.83**	**0.83**	0.54	0.69	0.55	0.58
Czech Republic	0.49	0.69	0.41	0.43	**0.84**	**0.83**	0.70	**0.75**	**0.85**	0.34	0.42	0.41	0.54
Hungary	**0.85**	0.57	0.72	0.38	**0.87**	**0.79**	**0.77**	0.70	0.69	0.38	0.51	0.59	0.44
Bulgaria	0.73	0.72	0.69	0.46	**0.91**	**0.80**	**0.77**	**0.87**	**0.76**	0.34	0.67	0.53	0.65
The Netherlands	0.72	0.49	0.53	0.50	**0.82**	**0.79**	0.61	0.70	**0.76**	0.31	0.42	0.63	0.52
Belgium	0.74	0.60	0.59	0.41	**0.79**	**0.89**	0.73	**0.83**	**0.88**	0.32	0.71	**0.82**	0.54
Ireland	0.74	0.62	0.51	0.32	**0.78**	0.69	0.60	**0.81**	**0.90**	0.41	0.48	0.42	**0.76**
Portugal	**0.91**	**0.80**	0.74	0.43	**0.86**	**0.84**	**0.81**	**0.88**	**0.88**	0.55	0.59	0.54	0.67
Greece	**0.88**	0.70	**0.86**	0.26	0.67	0.74	0.70	**0.79**	**0.88**	**0.23**	0.74	0.34	0.66
Finland	**0.76**	0.66	0.66	0.30	0.67	0.73	0.67	**0.83**	**0.84**	0.34	0.52	0.63	0.49
Sweden	**0.81**	0.69	0.71	0.45	0.69	0.64	0.60	0.72	0.64	0.38	0.35	0.55	0.49
Denmark	**0.85**	**0.75**	0.68	0.31	0.60	0.71	0.66	**0.76**	**0.78**	0.42	0.50	0.54	0.62
Austria	**0.80**	0.59	0.57	**0.24**	0.64	**0.83**	0.67	0.74	**0.78**	**0.22**	0.57	0.49	0.53
Estonia	0.70	0.61	0.48	0.35	0.74	**0.79**	**0.75**	**0.75**	**0.86**	0.36	0.51	0.49	0.54
Latvia	0.66	0.73	0.50	**0.24**	0.71	**0.77**	0.73	**0.78**	0.70	0.38	0.54	0.59	0.46
Lithuania	**0.79**	0.65	0.57	0.49	**0.80**	**0.87**	**0.80**	**0.87**	**0.87**	0.36	0.59	0.50	0.51
Slovakia	0.71	0.74	0.58	0.28	**0.75**	**0.78**	0.70	**0.85**	**0.90**	0.33	0.56	0.46	0.55
Slovenia	**0.79**	**0.82**	0.71	0.27	**0.78**	**0.78**	0.65	**0.83**	**0.87**	0.38	0.69	0.59	0.45
Luxembourg	**0.81**	0.66	0.64	0.31	0.63	**0.87**	0.67	**0.85**	**0.88**	0.31	0.61	0.54	0.56
Cyprus	**0.89**	**0.78**	**0.85**	**0.24**	0.67	0.73	0.73	**0.83**	**0.86**	0.38	**0.78**	0.41	0.60
Malta	**0.75**	0.58	0.59	0.52	**0.80**	**0.81**	**0.82**	**0.83**	**0.77**	0.34	0.59	0.43	0.65

Proofs

1) Minimum and maximum values of differential support

If we express support for the rightist party as p, support for the issue as i, and observed frequency in the top right cell as f (all expressed as proportions on the whole electorate), in Section 2 it was shown that $\max(f) = \min(i, p)$; $\min(f) = \max(0, i - (1 - p))$.

Also, let use define differential support as $d = f - i*p$. This is because the differential support is precisely the difference between the observed frequency f and the expected frequency $i*p$ (all of them being expressed in shares on the whole sample).

Thus, in order to derive functions expressing the maximum and minimum possible values for d, we will have to take into account the analogous constraints for f, which require us to consider different cases. In particular:

$\max(d) = \max(f) - ip = \min(i, p) - ip$

$\Rightarrow \max(d) = \quad i - ip \qquad\qquad$ [when $i \leq p$]

$\qquad\qquad\quad p - ip \qquad\qquad$ [when $i > p$]

And:

$\min(d) = \min(f) - ip = \max(0, i - (1 - p)) - ip$

$\Rightarrow \min(d) = \quad 0 - ip \qquad\qquad$ [when $i - (1 - p) \leq 0$]

$\qquad\qquad\quad i - (1 - p) - ip \qquad$ [when $i - (1 - p) > 0$]

In the AP diagram, the x axis represents d, and the y axis represents i. Thus, if we want to obtain the equations representing the coordinates of $\max(d)$ and $\min(d)$, we can substitute, in the above equations, $\max(d)$ with x, and i with y, obtaining:

For $\max(d)$:

$x = y - yp$ $\quad$ [when $y \leq p$]	$\Rightarrow$	$y(1-p) = x$	$\Rightarrow$	$y = x / (1 - p)$ $\quad$ [when $y \leq p$]
$x = p - yp$ $\quad$ [when $y > p$]		$yp = p - x$		$y = 1 - x / p$ $\quad$ [when $y > p$]

For $\min(d)$:

$x = 0 - yp$ $\qquad\qquad$ [when $y \leq 1 - p$]	$\Rightarrow$	$yp = -x$	$\Rightarrow$	$y = - x / p$
$x = y - (1 - p) - yp$ [when $y > 1 - p$]		$y(1-p) - (1-p) = x$		$y = x/(1-p) + 1$

2) Derivation of issue yield

Let us define p as the share of respondents that support a party, i the share of respondents that agrees on an issue, and f the share of respondents that support the party and agree on the issue.

Then, the coordinates of the party will be: $x = p - p^2$; $y = p$. And the coordinates of the issue will be $x = f - p*i$; $y = i$ (see proof 1).

Given two points, the slope of the line connecting them is simply $(y_1 - y_0) / (x_1 - x_0)$. Thus, the slope of the line connecting the party and the issue will be

$$\frac{i - p}{f + p(p - (1 + i))}$$

But the maximum possible slope (in the top right corner) is $(-1 \, / \, p)$. If we divide the actual slope by the maximum possible slope, we obtain

$$\frac{p(p-i)}{f + p(p-(1+i))}$$

which can reach a maximum of 1, when an issue lies on the boundary path, and will be 0 when a party moves towards an issue that has the same level of support, but with a loss of some of its original voters.

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