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The Eurovision Song Contest. Is voting political or cultural? ☆

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Abstract

We analyze the voting behavior and ratings of judges in a popular song contest held every year in Europe since 1956. The dataset makes it possible to analyze the determinants of success, and gives a rare opportunity to run a direct test of vote trading. Though the votes cast may appear as resulting from such trading, we show that they are rather driven by quality of the participants as well as by linguistic and cultural proximities between singers and voting countries. Therefore, and contrary to what was recently suggested, there seems to be no reason to take the result of the Contest as mimicking the political conflicts (and friendships). © 2007 Elsevier B.V. All rights reserved.

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1. Introduction

The purpose of this paper is to analyze the determinants of success and voting behavior of judges in one of the most popular singing contest held since 1956 in Europe, the Eurovision Song Contest. The competition is interesting since each country (player) votes for singers (or groups of singers) of all other participating countries. This gives a rare opportunity to test in a direct way whether players exchange votes.

Such exchanges seem indeed to happen. In the May 2004 contest for example, Ukraine, the winning country, benefited from the votes of all its former political “neighbors.” Its average marks were 8.1, but it received 12 (the highest marks) from Estonia, Latvia, Lithuania, Poland, and Russia, and 10 (the next highest, since 11 does not exist) from Belarus and Serbia. Another example involves two other countries which, though they were very far from winning, could be suspected to have colluded: The Netherlands, with an average rating of 2.3 received 5 points from Belgium, which in turn received 6 from the Dutch judges, though its average rating was only 3.7. It is therefore reasonable to suspect that voting agreements are struck, or that countries cast political rather than “artistic” votes, even though there is no political issue at stake.

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Political voting was suggested for example by Terry Wogan, the BBC-TV commentator after the 2000 contest.¹ The BBC also draws attention to the way in which neighbors vote for each other. The issue was recently taken up by *The Economist*,² following the publication of the paper by Fenn et al. (2005):

“What makes a song good? Lyrics, melody and rhythm have their place, of course, but for entrants of the Eurovision Song Contest on May 21st, geopolitics may be the decisive factor. The data [analyzed by Fenn and colleagues] confirm what many already suspected: that the contest is not always about the quality of the songs. The research published has shown the contest also has a deeper meaning, and reveals how “European” each country is. Despite its Eurosceptic image, for instance, the data suggest that Britain is very much in tune with the rest of Europe. Supposedly France, by contrast, is actually out of kilter with many of its European cousins.”

The collusive voting behavior in the Eurovision song contest is studied by an increasing number of scholars with various backgrounds, including computer sciences, economics, sociology, etc. Yair (1995) was among the first to study the contest. Using the voting data over the period 1975–1992, he found three bloc areas namely Western, Mediterranean and Northern Europe. Gatherer (2004) analyzed the period 1975–2002 and identified two large blocs, called “the Viking Empire” including Scandinavian and Baltic countries, and the “Warsaw Pact” comprising Russia, Romania and the former Yugoslavia. More recently, Gatherer (2004, 2006) used Monte Carlo simulation methods to study voting pattern of countries over the period 1975–2005. He emphasized the emergence of large geographical blocs since the mid-90s. Fenn et al. (2005) investigated the relations between European countries represented in the contest in terms of a dynamical network, and concluded that there exist “unofficial cliques of countries” and vote patterns. They highlighted this using several network techniques, as well as cluster analysis, including a dendrogram which seems to support the existence of cliques.

Some additional issues in the context of the Eurovision are analyzed by Haan et al. (2005) and Bruine de Bruin (2005). They mainly focused on the effect of performance order on the voting outcome and the difference between tele-voting and votes cast by a jury.

A second, though indirectly, related literature concerns coalition formation between countries in international organizations such as the United Nations, or in supra-national legislatures like the European Parliament. The stability of international coalitions is documented by Holcombe and Sobel (1996) and Erik Voeten (2000). In particular, Voeten (2000) finds that the positions and coalitions of countries are stable across time, issue area and importance of issue.

In this paper we show that “quality” as determined by the juries of the various competitions, and which is ignored by Fenn et al. (2005), among others, plays the most important role. There exist cliques or voting blocs, but these are based on linguistic and cultural similarities, which, once they are introduced to explain the votes cast by each participating country for other countries, eliminate the effect of votes’ exchanges based on political issues. We thus conclude that what may look as vote trading is in fact sincere voting based on “quality,” and linguistic and cultural proximities. Still, one can argue that the voting procedure takes into account factors that are not purely artistic.

The paper is organized as follows. In Section 2, the main features of the competition are given. Section 3 discusses the voting equation. Section 4 describes our estimation results, and shows that those obtained by Fenn et al. (2005) can be explained from a rather different perspective. Section 5 concludes.

2. The Eurovision Song Contest

The Eurovision Song Contest (ESC) was born in 1955, and held for the first time in Lugano, Switzerland, in 1956, with seven countries competing. The number of participants increased to 16 in 1961. Non-European countries can also take part: Israel, Morocco, and Turkey are now regular participants. The only restriction is that the television that broadcasts the show (that is the previous year’s winning country since 1958) has to be member of the European Broadcasting Union. Since 2002, there are 24 slots for finalists.³ In 2001, the contest was held in front of

¹ See for instance the discussion on <http://homepage.ntlworld.com/waterloo/2000/politics.htm>.

² May 21, 2005, vol. 375, p. 93.

³ Four are reserved for the Big Four (Germany, France, Spain and the United Kingdom). The selection rules for others have changed over time. Since 2004, all countries can participate in semi-finals. Twenty-four countries can enter the finals: the big four, the ten best from the previous year and the ten best from the semi-finals.

an audience of 38,000 in Copenhagen, and broadcast live all around the world. Contests are watched by several hundred millions of people.

The scoring system changed several times. Since 1975 — the first year in our dataset —, the 11 (16 between 1988 and 1997) jury members in each country (often a popular jury, not consisting of experts), can rate on a scale from 1 to 12. Tele-voting was introduced in 1998, so that every citizen can participate, and according to Haan, Dijkstra and Dijkstra (2005), “in many countries, the number of people calling in to register their vote is in the hundreds of thousands.”

The ratings are normalized so that the favorite song gets 12 points, the next one 10, and then 8, 7, 6, 5, 4, 3, 2 and 1. This allows each voting country to give positive ratings to ten other countries. Participating countries cannot vote for their nationals.

The order in which candidates perform is randomly drawn before the competition starts. After the performance ends, countries are asked to cast their votes. Results are announced country by country, in the order in which countries performed. Participants are ranked according to their aggregate score.

3. The voting equation

Our purpose is to explain v_{ij} , the vote (that is, the number of points) cast by the judges of country $i \in L$ in evaluating the performer of country $j \in L$ ($i \neq j$, since country i cannot vote for its own candidate), where L is the number of participating countries.

If countries i and j ($i \neq j$) exchanged their votes without taking into account any other dimension, the voting equation could simply be written

$$v_{ij} = \alpha v_{ji} + u_{ij}, \quad (1)$$

where α is a parameter, and u_{ij} a random disturbance. A positive α would indicate exchange of votes between the two countries.

To take account of other factors, the equation should contain variables x_{jk} , $k=1, \dots, K$ measuring the K characteristics of performer j , as well as characteristics z_{ip} , $p=1, \dots, P$ of voter i , and read

$$v_{ij} = \alpha v_{ji} + \sum_k \beta_k x_{jk} + \sum_p \gamma_p z_{ip} + u_{ij}, \quad (2)$$

where the β and the γ are parameters to be estimated.

Note first that v_{ij} will appear in the right-hand side of the equation for the observation concerning the vote of j for singer i . To circumvent this, one may use the vote cast in the previous competition, say $v_{ji, -1}$, though this needs the additional assumption that countries keep their commitments over time. An alternative is to use only one half of the observations so that every v_{ij} that appears in the left-hand side of the equation is not used in the right-hand side. This will be further discussed in Section 4, where we turn to estimation.

In an ideal world the most important determinant of voting should obviously be the quality of the performance. One should consequently control for quality. Quality, however, is not observed by the analyst. As a result a proxy must be constructed. One way of doing this is to take the ex-post average rating of a musician j by the judges of countries $l \in L$, $l \neq j$, which creates some additional endogeneity, since i 's vote is included in the measure when i votes. This can be avoided by excluding i 's vote from the definition of quality when i votes, so that the quality of a given singer is defined in a different way for each voter:

$$q_j^i = \frac{1}{L-2} \sum_{l \neq i, j} v_{lj}. \quad (3)$$

As is clear from Eq. (3), quality is slightly different for each vote-casting country. The difference, in practice, is negligible given the relatively large number of voters in any given year.

This measure of quality is quite reasonable if there are only bilateral agreements, that is, if voting blocs include exactly two countries. However, if voting blocs include more than two countries, their vote will be included, and true quality may be overestimated. Therefore, we exclude from the quality measure of a given country during a specific period the votes of all members belonging to the same voting bloc, as identified by Gatherer (2006), who studied collusive behavior between 1975 and 2005. To the best of our knowledge, this is the only study that analyzes collusion in successive five-year periods and reports on the voting blocs. Thus, we exclude the votes cast by Poland and the Russian Federation in the definition of quality for Ukraine during 2001 and 2003, or of the votes cast by Cyprus during 1996 to 2000 in the quality definition of Greece, and so on.⁴ Quality is measured as

$$q_j^{b_j} = \frac{1}{L - b_j - 1} \sum_{i \neq j, i \in B_j} v_{ij}, \quad (4)$$

where B_j is the set of countries that form a bloc with j in a given year (or period) and b_j is their number. Our measure of quality is thus not affected by the presence of voting blocs.

To avoid endogeneity a better alternative is to instrument quality. As will be shown in Section 4, a valid instrument is provided by lagged quality, defined in the same way as in Eq. (4).

In addition to quality, individual characteristics of the performer(s) may also affect the number of votes received by a performing country. These include (a) a dummy for host country: the variable takes the value 1 for the performer who represents the host country, (b) the language in which the artist sings (English, French, other),⁵ (c) gender of the artist, and (d) whether the artist sings alone, in a duet or in a group.⁶ The order in which musicians appear in a competition seems to have an effect on the outcome. Flôres and Ginsburgh (1996) and Glejser and Heyndels (2001) observe that in one of the top-ranked international piano competitions, the Queen Elisabeth competition, those who perform first are less likely to receive high ratings. Similar observations are made by Haan, Dijkstra and Dijkstra (2005) and Bruine de Bruin (2005) for the Eurovision contest, in papers that are essentially devoted to examine this issue. We thus included the order of appearance as a determinant.

In a spatial model framework voters' characteristics are also important determinants of voting behavior. Since these are more difficult to describe, one could simplify this part of the model by assuming that each voting country is represented by a dummy. However, since the number of points a country can award is exogenously fixed this approach cannot be followed. As an alternative we include linguistic and cultural distances $w_{ij,p}$, $p=1, 2, \dots, P$ between performers i and voters j . Note that languages are not used as a measure of the distance between the language spoken by voters and the one in which the song is performed (most of them are nowadays performed in English), but they represent cultural proximities between populations.

Linguistic distances are based on the lexicostatistical method, invented by Morris Swadesh (1952). The method starts with a list of meanings that are basic enough for every culture to have words for them, for example, mother, father, blood, digits, etc. The list used by Dyen, Kruskal and Black (1992) contains 200 such meanings. Phonetic representations are collected for the words with these meanings for a group of languages.⁷ For each meaning, a linguist makes expert judgments of cognation. Two forms are said to be *cognate* if they both descend in unbroken lines from a common ancestral word. For each pair of languages, a lexicostatistical

⁴ For more details see Figs. 1 and 2 in Gatherer (2006).

⁵ Information on the language in which a song was performed (English, French, Other) is based on the title of the song. For example, if the title was in English, such as "save your last kisses for me", we coded the language of the song as English. Note that in some cases, a title in English or French does not necessarily mean that the song was entirely performed in English or in French. Likewise, a song performed essentially in English or French may have a title in another language.

⁶ Gender of the singer or composition of the group (Male, Female, Duet) were constructed from the records' covers which, in most cases, include pictures. In some cases, however, neither name, nor photograph were sufficient to guess gender. Sometimes the cover of the record was not available at all. All those cases were dropped due to missing observations.

⁷ Swadesh and his followers used the idea for Indo-European languages, but this has since been extended to African and American Indian languages.

Table 1
Correlations between linguistic and cultural distances

	Language	Power	Individualism	Masculinity	Uncertainty avoidance
Language	1				
Power	0.205	1			
Individualism	0.254	0.111	1		
Masculinity	−0.092	0.031	−0.128	1	
Uncertainty avoidance	0.319	0.567	0.404	0.083	1

distance between languages l and m is computed. It is equal to $n_{lm}^0 / (n_{lm}^0 + n_{lm})$ where n_{lm}^0 is the number of meanings for which the speech varieties l and m are classified as “not cognate” and n_{lm} is the number of meanings for which they are “cognate.” the larger this ratio, the more “distant” the two languages.⁸

National culture differences are represented by the four dimensions⁹ studied by Geert Hofstede (1980, 1991). Hofstede’s ideas started with a research project across subsidiaries of the multinational corporation IBM in 64 countries. Subsequent studies by others covered students in 23 countries, elites in 19 countries, commercial airline pilots in 23 countries, up-market consumers in 15 countries, and civil service managers in 14 countries. These studies identified and scored the following four dimensions:¹⁰

- power distance* measures the extent to which the less powerful members of a society accept that power is distributed unequally; it focuses on the degree of equality between individuals;
- individualism* measures the degree to which individuals in a society are integrated into groups; it focuses on the degree a society reinforces individual or collective achievement and interpersonal relationships;
- masculinity* refers to the distribution of roles between genders in a society; it focuses on the degree to which a society reinforces the traditional masculine work role of male achievement, control, and power;
- uncertainty avoidance* deals with a society’s tolerance for uncertainty or ambiguity, and refers to man’s search for truth.

Table 1 illustrates the correlations between the various variables for the countries and native languages that are present in our sample. Uncertainty Avoidance is correlated with three other variables, but otherwise, small correlations indicate that distances seem to pick very different dimensions of peoples’ behavior.

4. Data and estimation results

Data on contests cover 29 years (1975–2003), with an average of 22 participating countries.¹¹ This produces 462 votes (22 times 21) for each competition. Given that values of several variables are missing — in particular cultural and linguistic distances — and since we use lagged votes we end up with 4074 observations. Using lagged qualities as instruments for present quality, further reduces the number of observations to 3489 in some regressions.

⁸ See Dyen, Kruskal and Black (1992, pp. 102–117) which contains a matrix of distances between Indo-European languages.

⁹ Hofstede adds a fifth distance (long-term orientation) that originates from a research conducted in 23 countries only. Since many countries that are represented in our sample are missing, this dimension cannot be used here. For details, see Hofstede and Bond (1988).

¹⁰ The definitions are taken from <http://spitswww.uvt.nl/web/iric/hofstede/page3.htm> and <http://geert-hofstede.international-business-center.com/index.shtml> (April 2004), a webpage on which the data can also be found.

¹¹ Extensive information on the Eurovision Song Contest is available on various web-sites. See for example <http://www.eurosng.net/data/database.htm> or <http://members.fortunecity.com/mcdeil69>. Votes and variables such as “Order of performance” and “Host country” can be collected from there. Though the competition started in 1956, our analysis starts in 1975, since the current rating system was adopted in 1975 only. In 2004, new rules were again adopted for the voting system: semi-finals started to be organized, in which some countries are eliminated, but can still vote in the finals. Therefore we chose to stop in 2003.

Table 2
The voting equation

	(a)	(b)	(c)	(d)	(e)
Quality	0.966** (0.026)	0.968** (0.026)	0.957** (0.026)	0.960** (0.026)	1.028** (0.158)
Lagged vote	0.026* (0.013)	0.023 (0.013)	0.013 (0.013)	0.014 (0.013)	0.016 (0.014)
Host country	0.255 (0.237)	0.269 (0.236)	0.236 (0.237)	0.253 (0.236)	0.293 (0.320)
Sung in English	0.110 (0.136)	0.149 (0.135)	0.078 (0.136)	0.104 (0.136)	−0.007 (0.252)
Sung in French	0.233 (0.166)	0.226 (0.167)	0.219 (0.171)	0.219 (0.171)	0.078 (0.261)
Male singer	0.157 (0.128)	0.163 (0.127)	0.160 (0.128)	0.167 (0.128)	0.197 (0.144)
Duet	0.135 (0.201)	0.065 (0.199)	0.120 (0.201)	0.091 (0.200)	0.049 (0.219)
Group	0.076 (0.131)	0.057 (0.130)	0.062 (0.130)	0.053 (0.130)	0.031 (0.145)
Order of perf.	0.003 (0.008)	0.003 (0.008)	0.004 (0.008)	0.004 (0.008)	0.003 (0.011)
Language		−0.955** (0.195)		−0.577** (0.212)	−0.645** (0.233)
Power			−0.012** (0.004)	−0.010* (0.004)	−0.007 (0.005)
Individualism			−0.004 (0.004)	−0.002 (0.004)	−0.002 (0.005)
Masculinity			−0.004 (0.003)	−0.004 (0.003)	−0.004 (0.003)
Uncertainty avoidance			−0.010** (0.003)	−0.008* (0.003)	−0.008* (0.004)
Intercept	0.081 (0.126)	0.633** (0.173)	0.888** (0.186)	1.105** (0.209)	0.886* (0.424)
R-squared	0.30	0.30	0.30	0.30	0.30
No. of obs.	4074	4074	4074	4074	3489

Linear model.

Robust standard errors appear between brackets. ** and * for significantly different from zero at the 1 and 5% probability level.

Table 3
The voting equation

	Regression coefficient	Standardized coefficient
Quality	0.960**	0.532
Lagged vote	0.014	0.014
Host country	0.253	0.016
Sung in English	0.104	0.011
Sung in French	0.219	0.018
Male singer	0.167	0.018
Duet	0.091	0.007
Group	0.053	0.006
Order of perf.	0.004	0.006
Language	−0.577**	−0.04
Power	−0.010*	−0.03
Individualism	−0.002	−0.008
Masculinity	−0.004	−0.024
Uncertainty Avoidance	−0.008*	−0.04

Standardized coefficients.

** and * for significantly different from zero at the 1 and 5% probability level.

Table 4
The voting equation

	(a)	(b)	(c)	(d)	(e)	(f)
Lagged vote	0.038** (0.011)	0.012 (0.011)	0.016 (0.013)	–	–	–
Current vote	–	–	–	0.076** (0.013)	0.021 (0.014)	0.028 (0.017)
Language	–1.711** (0.180)	–	–0.666** (0.223)	–1.561** (0.218)	–	–0.250 (0.289)
Power	–	–0.004 (0.003)	–0.004 (0.005)	–	–0.001 (0.004)	0.001 (0.006)
Individualism	–	0.000 (0.004)	0.001 (0.004)	–	0.001 (0.004)	–0.002 (0.006)
Masculinity	–	–0.004 (0.002)	–0.004 (0.003)	–	–0.005 (0.003)	–0.005 (0.004)
Uncertainty avoidance	–	–0.014** (0.003)	–0.013** (0.003)	–	–0.013** (0.003)	–0.017** (0.004)
R-square	0.33	0.35	0.34	0.31	0.34	0.34
No. of obs.	5,778	5,682	4,102	4,002	3,597	2,529

Linear Model with Fixed Effects.

Estimates for intercept and country and year specific dummies are not reported. Robust standard errors appear between brackets. ** and * for significantly different from zero at the 1 and 5% probability level.

The voting equation is estimated by linear methods but since votes (in fact ratings) are integers that take values between 0 and 12 (with the exclusion of 9 and 11), ordered probit and Tobit methods¹² will also be used. The equation is:

$$v_{ij} = \alpha v_{ji,-1} + \beta_1 q_j^{bj} + \sum_k \beta_k x_{jk} + \sum_p \gamma_p w_{ij,p} + u_{ij}, \tag{5}$$

using Eq. (4) as the definition of quality q_j^{bj} .

Eq. (5) pools observations from 1975 to 2003. We note, however, that voting procedures have changed since 1998, when tele-voting was introduced, while only judges were allowed to vote until 1997. One may wonder whether the collusion assumption is as likely to hold after 1997. We checked for this by estimating Eq. (5) (using OLS only) on both subperiods and tested H_0 : the coefficients are equal in the two subperiods. The appropriate F -test turns out to be equal to 1.04, showing that we cannot reject H_0 at the 1% confidence level. We may thus conclude that there is no significant difference between the results of ranking by judges and ranking by tele-voters.

Columns (a) to (d) of Table 2 contain the results of an OLS estimation of Eq. (5). We first observe that quality always plays a very significant role, and can be interpreted as showing that there is large agreement between judges on the rating of candidates. Vote trading is significant only in specification (a), in which no account is taken of linguistic and cultural distances. It ceases to be so in all the other specifications once linguistic and/or cultural distances are also accounted for. Note that even when the coefficient on vote trading is significantly different from zero, its value is very small. Though not all distance coefficients are significantly different from zero at the 5% probability level, they all pick negative signs (the larger the distance, the lower the rating).

Column (e) of Table 2 contains the results of a two-stage least-squares (TSLS) estimation of Eq. (5), in which the quality of performer i is instrumented by $q_{j,-1}^{bj}$ and $q_{j,-2}^{bj}$, the lagged qualities obtained in the two previous competitions. The instruments used for quality satisfy both validity conditions for “good” instruments. Current quality was regressed on all exogenous variables as well as on lagged qualities $q_{j,-1}^{bj}$ and $q_{j,-2}^{bj}$, which picked t -statistics of 3 and 7 respectively, showing that we do not face weak instruments. It is not surprising that this

¹² Only 10 performers get positive rates. Since there are on average 22 competitors, 12 are rated 0.

Table 5
The voting equation

	(a)	(b)	(c)	(d)
Quality	0.862	0.878	0.916	0.916
Signif. at 5% level	100	100	100	100
Signif. at 1% level	100	100	100	100
Current vote	0.082	0.077	0.026	0.026
Signif. at 5% level	100	100	32	10
Signif. at 1% level	100	100	1	0
Language		−1.577		−0.675
Signif. at 5% level		100		76
Signif. at 1% level		46		17
Power			−0.006	−0.009
Signif. at 5% level			32	36
Signif. at 1% level			15	17
Individualism			−0.001	−0.000
Signif. at 5% level			6	10
Signif. at 1% level			2	2
Masculinity			−0.005	−0.008
Signif. at 5% level			42	71
Signif. at 1% level			14	34
Uncertainty avoidance			−0.012	−0.010
Signif. at 5% level			96	74
Signif. at 1% level			84	43
No. of obs.	6,452	3,949	3,564	2,509

Linear model with simultaneous effect of logrolling (average value of coefficients and number of cases with coefficient significantly different from 0).

Equation (a) contains neither language nor other cultural distances. Equations (b), (c) and (d) respectively contain language distances, cultural distances and both types of distances. Equations also include other variables (order of performance, host country, sung in English, sung in French, male singer, duet, group, and intercept, but results are not reported).

correlation is high, since having been among the best in a given year exerts pressure on future contestants. The exogeneity condition is also satisfied, since the current year's vote can obviously have no effect on the lagged vote and therefore, on quality. Finally, the overidentifying restrictions test, which can be used since we have more instruments than endogenous variables, leads to a χ^2 value of 0.75, while the tabulated value with one degree of freedom is equal to 3.84 at the 5% level. The specification can therefore not be rejected, which implies that the instruments (lagged qualities) are valid and that the model is not misspecified.

Results produced by TSLS are very similar to the previous ones. They show that quality is still very significant, there is no significant vote trading, singer characteristics do not matter, language proximity is significantly different from zero at the 1% probability level, and two cultural distance measures are significantly different from zero at the 5% level. Estimation results using ordered probit or Tobit specifications (Appendix Tables 1 and 2), lead to qualitatively comparable results.

The results make it clear that some variables have statistically significant effect on votes. However, since these are measured in different units, it is not easy to see which ones have meaningful effects. Table 3 compares the regression coefficients in specification (d) of Table 2 with standardized coefficients, obtained after multiplication of the coefficients of column (d) by s_j/s_y , where s_j and s_y represent the standard deviations of regressor j and of the dependent variable y .¹³ Results show that the quality of the singer (or group) is the most important variable, and that the effect of vote trading is dwarfed by the effect of linguistic and cultural distances.

Table 4 reproduces results in which quality, as well as other variables are replaced by fixed performer and voter effects. Vote trading is tested by the introduction of lagged votes in specifications (a)–(c), and current votes in (d)–(f). Conclusions are identical to the previous ones: the vote trading effect vanishes once linguistic and cultural distances are accounted for.

¹³ See Goldberger (1964, pp. 197–198).

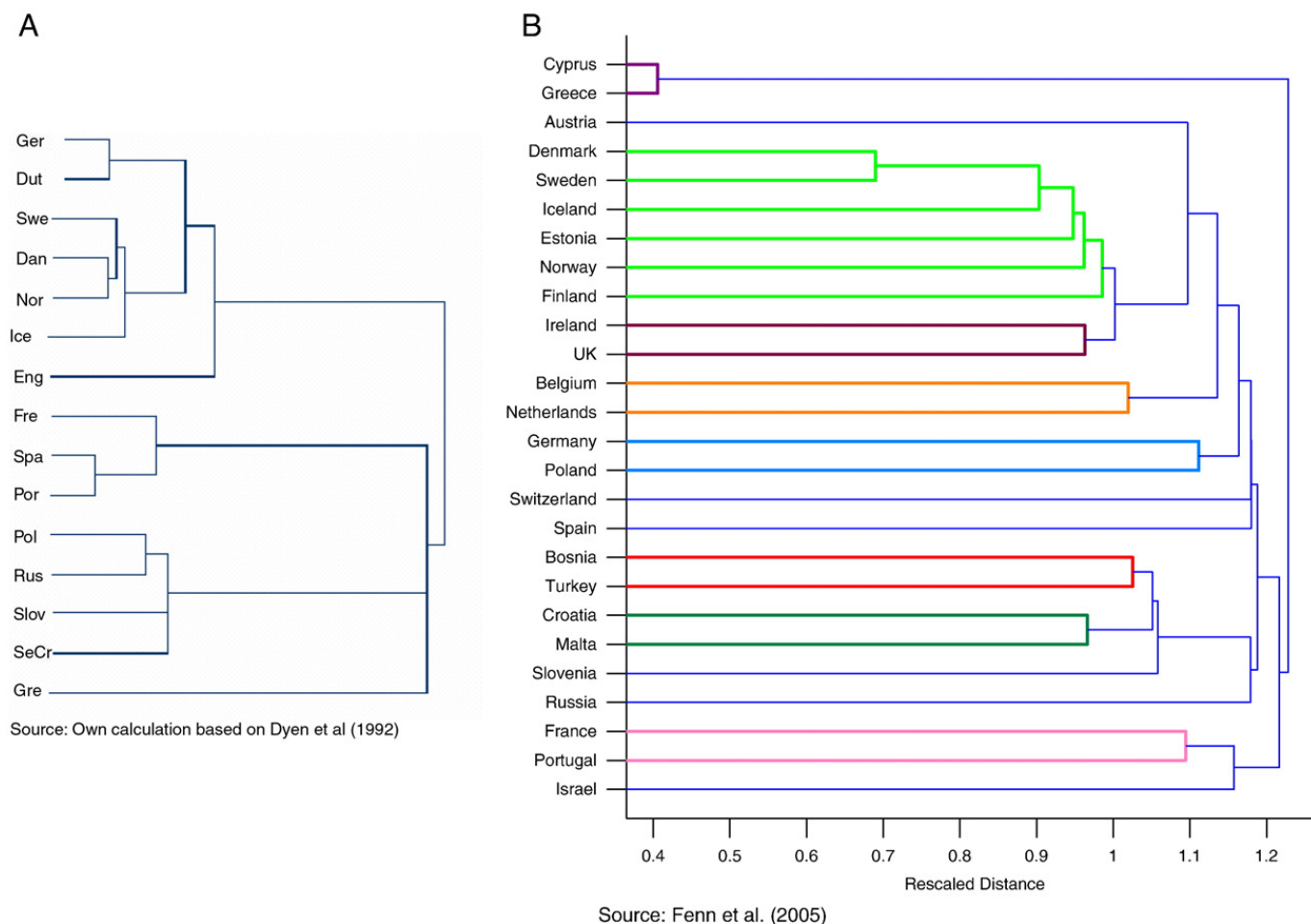


Fig. 1. A. Languages dendrogram. B. ESC countries dendrogram.

In Section 2, we mentioned that introducing current votes was problematic, since every v_{ij} appears in both sides of the equation. Estimating the voting equation with half of the votes (so that when v_{ij} appears as dependent variable, the observation in which v_{ij} is the dependent variable is excluded) would be a solution, though one has to decide which half should be dropped. To get some insight, we run 100 regressions¹⁴ on 100 random samples of half the number of observations. We then count the number of times each parameter is (or ceases to be) significantly different from zero at the five and the 1% probability levels. Results of these simulations appear in Table 5. They show that quality remains significant in all cases, but that the vote trading effect ceases to be significantly different from zero once linguistic and cultural distances are introduced.¹⁵

All our results point in the same direction. “Quality” is the main determinant in the voting procedure, linguistic and other cultural factors are present, but not at the forefront. Political vote trading is not an issue once cultural factors are taken into account. This does not mean that there is no vote trading, but it is rather due to cultural and linguistic factors.

Though Fenn et al. (2005) do not use regression analysis, their results may be biased or misleading since quality is absent from their calculations. But even if their results were taken for granted, most of them point to linguistic affinities, as is clear from their dendrogram, reproduced here as Fig. 1B, next to a dendrogram based on distances between Indo-European languages that is obtained from Dyen et al. (1992), using a clustering algorithm (Fig. 1A). We discuss

¹⁴ Only OLS were used here, since they lead to results that are similar to those obtained by other estimation methods. The number of 100 samples was chosen arbitrarily.

¹⁵ Note that these results are based on definition (3) of quality, instead of (4). This should hardly matter since the correlation between the two variables is equal to 0.97.

clusters of countries starting with those that are close in terms of the distance appearing on the vertical axis of the Fenn et al. (2005) dendrogram.

- (a) Greece and Cyprus appear very close. Greek is of course spoken in Greece, and by some 75% of the Cypriot population.¹⁶
- (b) Denmark and Sweden come next, but their languages are very close as well as is seen from the language dendrogram.
- (c) Next comes Iceland, and the group of Nordic countries. Though Estonian and Finnish do not belong to the same group of Nordic languages, they are probably close in terms of other dimensions.
- (d) At approximately the same distance, one finds Ireland and the UK, which should hardly come as a surprise.
- (e) The same applies to The Netherlands and Belgium, where 60% of the population is of Germanic origin and speaks Dutch.
- (f) Likewise, at a rescaled distance of 1, there is a cluster formed by Bosnia, Turkey, Croatia, Malta, and Slovenia. Three of these share Slavic languages, but still, this is a rather strange group, which probably shares a feeling of being at the “marches” of Europe.
- (g) Finally there are two countries (France and Portugal) that speak Romance languages, but are far from the rest of Europe. But so are Germany and Poland, Switzerland, Spain and Russia.

Though in (a) to (f), there are indeed factors than can be explained by geopolitics, they can also be cast in terms of sharing cultural traits and languages. It is not clear why France, and Portugal, but also Germany, Poland, Switzerland, Spain and Russia to some extent cast votes that can hardly be explained. But it is unfair to claim, as *The Economist* does, that “Britain is in tune with the rest of Europe, [while] France is out of kilter with many of its European cousins.”

5. Conclusions

In the popular competition examined in our paper, there is no evidence for vote trading beyond the one that can be explained by linguistic or cultural traits or proximities. The data that are at hand here make it possible to isolate the effect, since judges cast votes on individuals, and the rating system is finer than the usual “yes, no, abstain” voting system. It may well be that cultural proximities are also at work in international political bodies, such as the European Parliament, and that what appears as vote trading is rather the consequence of cultural factors.

Note that the effect of vote trading, even if there is some, is small: The largest coefficient obtained in our equations is equal to 0.03, while the “average” value of the vote cast by a country is equal to 2.6.¹⁷ Though the effect is significantly different from zero, it disappears once account is taken of culture and language. But even so, ratings which should be based on quality only, take into account other factors such as linguistic and cultural proximities.

One can wonder whether tele-voting, in which every citizen in a country can vote through the internet, or by telephone, will not be even more distortive, though experts are by no means very good judges.¹⁸ Tele-voting may also have unexpected consequences in today’s global world. An example may illustrate the issue. In 1996, Turkey won the competition, with very high ratings given by those countries in which the number of Turkish immigrants was highest, as shown by the following numbers: Germany (vote: 10; Turkish population: 2 millions), France (10; 261,000), The Netherlands (12; 260,000), Austria (12; 142,000), Belgium (12; 119,000). Migrants who often long for their home country are obviously likely to support their nationals, and probably more likely than the country’s nationals to take part in popular polls such as the Eurovision contest, therefore biasing the result in favor of their home country. It may thus probably be wise to go back from popular voting to expert voting, though some regressions that we ran on subsamples (before and after tele-voting was introduced) do not point to significant differences in voting behavior.

¹⁶ See www.ethnologue.com.

¹⁷ $(1+2+\dots+8+10+12)/22$, where the grades appear between brackets, and 22 is the average number of participants in a competition.

¹⁸ See for example Ginsburgh (2003).

Appendix A

Table 1
The voting equation

	(a)	(b)	(c)	(d)	(e)
Quality	0.323** (0.010)	0.325** (0.010)	0.323** (0.010)	0.324** (0.010)	0.397** (0.069)
Lagged vote	0.009 (0.005)	0.008 (0.005)	0.004 (0.005)	0.004 (0.005)	0.003 (0.006)
Host country	0.064 (0.069)	0.069 (0.068)	0.057 (0.069)	0.062 (0.069)	0.060 (0.135)
Sung in English	0.032 (0.045)	0.048 (0.045)	0.021 (0.045)	0.030 (0.045)	-0.023 (0.110)
Sung in French	0.043 (0.056)	0.043 (0.056)	0.037 (0.058)	0.039 (0.058)	0.057 (0.114)
Male singer	0.046 (0.046)	0.050 (0.046)	0.047 (0.046)	0.050 (0.046)	0.004 (0.064)
Duet	0.101 (0.064)	0.077 (0.064)	0.098 (0.065)	0.087 (0.065)	0.093 (0.087)
Group	0.035 (0.047)	0.029 (0.047)	0.028 (0.047)	0.026 (0.047)	0.043 (0.064)
Order of pref.	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	0.002 (0.003)	-0.002 (0.005)
Language		-0.317** (0.068)		-0.178* (0.073)	-0.146 (0.097)
Power			-0.004** (0.002)	-0.004* (0.002)	-0.003 (0.002)
Individualism			-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.002)
Masculinity			-0.002 (0.001)	-0.002 (0.001)	-0.001 (0.001)
Uncertainty avoidance			-0.003** (0.001)	-0.003* (0.001)	-0.002 (0.002)
Intercept					-0.805** (0.186)
Log likelihood	-71222	-7110	-7195	-7092	-13690
No. of obs.	4074	4074	4074	4074	3489

Ordered probit model.

** and * for significantly different from zero at the 1 and 5% probability level.

Appendix B

Table 2
The voting equation

	(a)	(b)	(c)	(d)	(e)
Quality	1.833** (0.055)	1.834** (0.055)	1.817** (0.055)	1.820** (0.054)	1.898** (0.280)
Lagged vote	0.048 (0.026)	0.043 (0.026)	0.022 (0.026)	0.022 (0.026)	0.019 (0.025)
Host country	0.355 (0.405)	0.380 (0.403)	0.312 (0.402)	0.339 (0.402)	0.092 (0.518)
Sung in English	0.196 (0.259)	0.284 (0.259)	0.134 (0.259)	0.185 (0.259)	-0.286 (0.441)
Sung in French	0.241 (0.327)	0.244 (0.326)	0.208 (0.333)	0.216 (0.332)	-0.190 (0.458)
Male singer	0.247 (0.259)	0.272 (0.258)	0.253 (0.258)	0.270 (0.258)	0.285 (0.266)

(continued on next page)

Appendix B (continued)

	(a)	(b)	(c)	(d)	(e)
Duet	0.617 (0.355)	0.483 (0.355)	0.592 (0.355)	0.537 (0.355)	0.426 (0.355)
Group	0.194 (0.266)	0.160 (0.265)	0.154 (0.264)	0.140 (0.264)	0.123 (0.262)
Order of pref.	0.009 (0.016)	0.008 (0.016)	0.010 (0.016)	0.009 (0.016)	–0.000 (0.019)
Language		–1.740** (0.370)		–0.950* (0.400)	–1.031** (0.397)
Power			–0.024** (0.009)	–0.021* (0.009)	–0.012 (0.009)
Individualism			–0.008 (0.008)	–0.005 (0.008)	–0.002 (0.008)
Masculinity			–0.008 (0.005)	–0.009 (0.005)	–0.007 (0.005)
Uncertainty Avoidance			–0.019** (0.007)	–0.017* (0.007)	–0.014* (0.007)
Intercept	–4.945** (0.316)	–3.936** (0.376)	–3.284** (0.409)	–2.927** (0.434)	–3.046** (0.770)
Log. likelihood	–7580	–7569	–7555	–7552	12678
No. of obs.	4074	4074	4074	4074	3721

Tobit model.

** and * for significantly different from zero at the 1 and 5% probability level.

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