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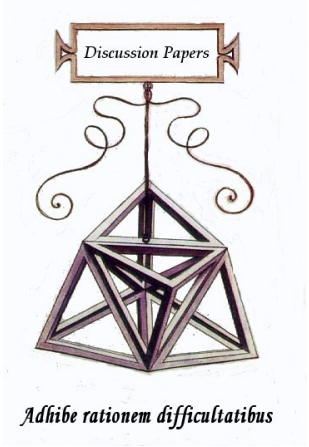

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Country Music: Positional Voting and Strategic Behavior

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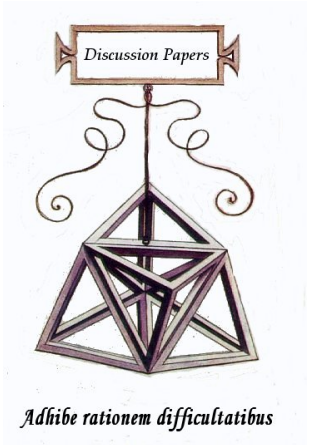

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Keywords: Strategic voting; Positional voting; Eurovision Song Contest

JEL CLassification: D72, C72, Z11

Country Music: Positional Voting and Strategic Behavior *†

Pietro Battiston[‡], Marco Magnani[§], Dimitri Paolini[¶], Luca Rossi[‖]

June 2, 2025

Abstract

We analyze strategic behaviour with positional voting in the context of the Eurovision Song Contest (ESC). In the ESC, each country participates both as a candidate, by presenting an artist and a song, and as a voter, via jury members and televote, creating an ideal setting for the study of strategic voting. To determine the final ranking, the contest employs a modified version of Borda voting, where voters are prevented from voting for their country's artist and song. Nevertheless, we find evidence of strategic behaviour among both industry experts (jury members), and televote. In both cases, voters tend to assign lower scores to close competitors of their country's candidate. We compare strategic voting in the ESC semifinals, where little information on competitors' strength is available, and strategic voting is more challenging, with the final, when more information has been revealed. Additionally, we investigate whether the intrinsic quality of songs or other external factors may explain our empirical observations, using data retrieved from Spotify and a specialized website. Beyond revealing that forbidding votes for one's own candidates is not sufficient to eliminate strategic behaviour, our results underscore the crucial role of information provision, specifically the drawbacks of multi-stage voting procedures where information is revealed during the election. Overall, they highlight the main limitation of Borda voting as an alternative to plurality voting.

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1 Introduction

"*My scheme is intended for only honest men*"

Jean-Charles de Borda (Black, 1958, p. 182)

The study of voting systems is essential for understanding collective decision-making processes and designing them effectively. This is a challenging task because, as demonstrated by Arrow (1951), no voting system can simultaneously satisfy all desirable properties (e.g., unanimity, non-dictatorship, and independence of irrelevant alternatives) required to aggregate individual preferences into a coherent social preference.

Traditional methods, such as the plurality rule, have long been criticized in social choice theory for their inability to capture the full range of voter preferences[1]. Recent research has further highlighted these limitations. For example, Alós-Ferrer and Buckenmaier (2021) argue that plurality voting exacerbates polarization by oversimplifying voter preferences and systematically favoring extreme outcomes.

This issue is increasingly relevant in today's political landscape, where rising polarization has been linked to extreme events such as the 2021 Capitol Hill riot and the 2023 attacks on the Federal Parliament of Brasília. The inability of plurality systems to reflect nuanced voter preferences may have played a role in fostering these divisive outcomes.

A similar trend can be observed in corporate boards, where plurality voting is commonly used and polarization is also growing. This has led to reduced diversity (Fos et al., 2022) and diminished effectiveness in collective decision-making (Hoang et al., 2025; Kempfxd and Tsoutsoura, 2024).

Overall, traditional voting systems pose significant challenges to effective decision–making — especially in contexts where consensus-building is crucial. This is often the case in politics, but also in corporate management, particularly when selecting projects or making investment decisions. International negotiations, non-profit organizations, and academic committees are further examples of settings where single-choice voting mechanisms may fail to reflect the full diversity of opinions and priorities (Laslier and Sanver, 2010; Nurmi, 2002).

These insights highlight the importance of exploring alternatives to simple plurality voting. Positional voting presents a promising solution by accounting for voter preferences across multiple choices, expressed as a ranking. This approach increases the likelihood of selecting broadly acceptable options for the electorate while reducing internal conflict and fostering more inclusive decision-making (Laruelle and Valenciano, 2008; Sy et al., 2022). More generally, positional voting is less likely to produce razor-thin, polarizing outcomes by considering more than just a voter's top preference.

One of the most well-known positional voting methods is the Borda Count (BC), a scoring rule in which

[1]See the recent paper by Lachat and Laslier (2024) for a comprehensive discussion of the criticisms of plurality voting.

each option receives a number of points based on its ranking by each voter. These scores are then summed to obtain collective preferences.

Although the BC solves some of the limitations of plurality voting, it still faces significant challenges. These issues have contributed—at least in part—to its limited adoption, which remains largely restricted to specific contexts such as the election of minority representatives (e.g., in Slovenia), voting in sparsely populated countries like Nauru and Kiribati, and entertainment events such as the Eurovision Song Contest (ESC). BC is also used in sports settings, for instance, in determining the best football or baseball player.

A major challenge in adopting the BC in collective decision-making is its violation of Arrow's Independence of Irrelevant Alternatives (IIA) axiom. Although Maskin (2025) downplays this concern by showing that BC satisfies a weaker, yet still meaningful, version of IIA, BC remains susceptible to strategic manipulation—a problem not unique to BC, as virtually every social choice function is vulnerable to manipulation, especially in elections with more than two alternatives (Smith, 1999). When a voting rule is not strategy-proof, voters may misrepresent their preferences to influence the outcome, thereby distorting both the inputs and the resulting collective decision (Dasgupta and Maskin, 2020). A common example occurs when a voter's most preferred option is unlikely to win: they may strategically support a more viable alternative in such cases.

Our paper explores this issue by assessing the extent of strategic manipulation in an election adopting a slightly modified version of BC. The goal is to contribute to the debate on the optimality of different voting methods by evaluating whether the strategic manipulation observed in BC elections and, more broadly, in elections that use positional voting, outweighs the potential benefits of these systems in mitigating polarization. To our knowledge, no prior work has empirically examined the impact of strategic voting in large-scale BC elections. We address this gap by analyzing a particularly compelling case study: the Eurovision Song Contest.

In the ESC, each country participates both as a candidate—by presenting an artist and a song—and as a voter, through a jury and a public televote. This dual role makes the ESC ideal for studying strategic voting, as strategic incentives are unusually transparent, and the votes are publicly disclosed.

The contest rules include a modified version of the BC to determine the final ranking. Notably, voters, either juries or televoters, are prohibited from voting for their own country's entry precisely to inhibit strategic voting. In addition, the contest's hybrid scoring system, which combines rankings from national juries with televote, offers a unique opportunity to compare strategic behaviour across small (jury) and large (public) electorates. Lastly, the ESC is well suited to analyze the role of information disclosure and coordination in strategic voting. Indeed, since 2008, the contest has included two sequential stages: a round of two semi–finals followed by a final.

To empirically investigate strategic manipulation, we construct an integrated dataset that combines ESC

voting records with data retrieved from Spotify and a dedicated Eurovision website, which provides fan polls and betting odds.

We examine strategic behaviour in the ESC final, identifying it as systematic deviations from the average number of points awarded to a given song—after controlling for the historical voting patterns between each pair of countries in previous editions of the contest.[2]

We focus on the final for two main reasons. First, from the voter's perspective, the final outcomes are more salient than those of the semifinals, which serve only to determine access to the next stage of the contest. Second, in the semifinals, information about the relative strength of competitors is limited, making strategic voting more difficult. By contrast, such information becomes largely available by the time of the final, as it is revealed during the semifinal rounds.

We find evidence of strategic behavior among both industry experts (jury members) and the televoting public. In both cases, voters tend to assign lower scores to close competitors of their own country's entry. This suggests that prohibiting votes for one's own candidate is not sufficient to prevent strategic voting. Competition is measured based on both internal and external metrics: internal distance is derived from the ranking either in the final or in a semifinal, while external distances are based on musical features, popularity on Spotify, fan poll rankings, and in betting odds.

It is worth mentioning that the ESC is an election in which voters have no obvious payoff apart from the pride of seeing their country win. Nevertheless, voters are still willing to exert the effort required to vote strategically. The issue of strategic voting is likely to be even more pronounced in higher-stakes contexts, such as political elections. Therefore, our results likely represent a lower bound on the potential for manipulation.

The presence of multiple stages in the election proves to be crucial for easing strategic voting, especially when the electorate is large. In such cases, the increased complexity and effort required typically discourage manipulation. By contrast, strategic behavior is more likely in small-scale elections, where information and coordination costs are lower. However, in the case of ESC, the information revealed during the semifinal stage is a signal observable by individual televoters, which significantly reduces the cost of strategic voting. This finding leads to a normative consideration: in multi-stage elections, the use of positional voting rules may be particularly problematic due to the increased potential for coordinated strategic manipulation.

The paper is structured as follows: Section 2 reviews the relevant literature, Section 3 provides an overview of the ESC voting rule, Section 4 outlines the empirical strategy and data used, Section 6 presents the empirical results, and Section 7 concludes.

[2]This average is calculated based on votes from all countries, including those that did not participate in the ESC final.

2 Related Literature

Seminal contributions by Gibbard (1973) and Satterthwaite (1975) have shown that strategic voting is a potential problem in any voting system. Such behaviour is the focus of a rich body of research in political economy (see, for example, Myerson and Weber, 1993, Cox, 1997, Fey, 1997, and Myatt, 2007). In this context, positional voting rules, particularly the Borda Count, have received special attention, as voters are more likely to engage in strategic voting rather than voting sincerely.[3] Several authors have studied strategic manipulation from both theoretical and empirical perspectives.[4]

Our paper contributes to the empirical literature, as reviewed in the works by Pons and Tricaud (2018) and Eggers and Vivyan (2020), which seeks to assess the extent to which voters engage in strategic behaviour by examining strategic voting in contexts beyond majority rule. The focus on the ESC, a particularly compelling real-world case of a large election based on a modified version of BC, represents a novel type of contribution to the discussion on manipulation in Borda elections, as most analyses of strategic voting rely instead on laboratory experiments. Results from laboratory experiments generally show that strategic behaviour emerges when voters recognize the potential to influence outcomes by misrepresenting their preferences. In particular, Forsythe et al. (1996) demonstrates how small group settings and repeated interactions lead to strategic voting, while Kube and Puppe (2009) show that manipulation rates are significant when individuals are informed not only about other agents' preferences but also about their actual votes.

Our analysis confirms previous findings, revealing evidence of strategic voting among both ESC jurors and the broader televoting public. The information disclosed during the semifinal stage—specifically, the votes cast by other agents—plays a crucial role in shaping the strategies adopted by televoters. This aligns with the results of Kube and Puppe (2009) and extends their conclusions to a more general and real-world setting. The scale and diversity of participants in our study introduce, in fact, additional complexities, such as varying levels of strategic sophistication, which are typically less pronounced in the controlled environments of laboratory experiments.

We benefit from two key elements in the empirical analysis compared to previous studies. The first is access to detailed voting data, allowing us to track votes from the semi–finals and cross-reference them with external sources to gauge a song's popularity outside ESC. The second is the opportunity to compare the outcomes of the televote, which has a large electorate, with those of the expert jury, a smaller electorate. [5] This comparison enables us to assess whether strategic voting is more pronounced in high-turnout settings

[3]Bassi (2015) uses laboratory data to analyze strategic behaviour in three voting systems: plurality rule, approval voting, and the Borda count, and shows that voters deviate from their sincere strategies the most in Borda count games.

[4]For a theoretical analysis of strategic voting, see for instance, Black (1976), Ludwin (1978), Saari (1990), Felsenthal (1996), Favardin et al. (2002), Barbie et al. (2006), and Lehtinen (2007). Forsythe et al. (1996), Kube and Puppe (2009), Bassi (2015), and Regenwetter and Grofman (1998) study this issue from an empirical perspective.

[5]The behaviour of jury members is also investigated in several papers that focus on the role of different biases and strategic behaviour in determining the outcomes of the voting process. For example, Johnson and McCarthy (2022) analyzes various scenarios where committee members' votes are relevant, primarily in sports competitions and awards.

or smaller electorates and to analyze how varying levels of participation influence voting strategies.

Our results further contribute to a body of literature specifically examining voting behaviour in the ESC. [6] In this context, several authors have analyzed the voting patterns of televoters and jury members, offering various explanations for these patterns. Some explanations are directly linked to specific features of the songs and artists [7]. In contrast, others are indirectly related, considering factors such as the order of performances (Haan et al., 2005) or the level of exposure of an artist or song to the public (Verrier, 2012). Other explanations focus on the characteristics of the electorate, highlighting the presence of voting blocs among voters from different countries (Fenn et al., 2006; Dekker, 2007) or biases in voting behaviour, which are often attributed to cultural and political factors, as well as geographic proximity [8].

None of these analyses explicitly consider the role of strategic voting, which is the focus of the present work. The study by Stockemer et al. (2018), possibly the closest to ours, is based on a large-scale survey among televoters where voting is classified into four categories: sincere, strategic, bandwagoning, and other behaviours. However, "strategic" voting refers to voting for a candidate which is not one's favourite, but the "preferred option among those she perceives to be viable" (note that differently from a juror, a televoter does *not* express a ranking, as the ranking emerges from the aggregation of the national televote). Their results indicate a limited use of strategic voting, with bandwagoning and sincere voting being more prevalent. However, the existence of a significant fraction of voters whose behaviour remains unexplained, as well as the strategic effect of bandwagoning, suggests that the role of strategy might be underestimated.

Our results support this hypothesis and focus on a form of strategic voting that is possibly more insidious, as it implies altering one's actual preferences in a way that might be totally unjustified on musical grounds. In addition, differently from Stockemer et al. (2018), we focus on actual votes rather than on self–reported information.

3 The Eurovision Song Contest

The ESC provides a rare example of large–scale election based on a variant of the BC. It is organized by the European Broadcasting Union, with approximately 40 countries participating. Traditionally, the host country for the ESC is the winner of the previous edition. According to the Rules of the ESC [9], each country's broadcaster "shall choose its performer through a national selection organized by each Participating Broadcaster. The national selection is organized under the sole responsibility of the Participating Broadcaster in question."'

[6] See Budzinski and Pannicke (2017) for an overview of this literature.

[7] See, for instance, Haan et al. (2005), Ginsburgh and Noury (2008), Spierdijk and Vellekoop (2009), and Budzinski and Pannicke (2017).

[8] See Haan et al. (2005), Blangiardo and Baio (2014), and Budzinski and Pannicke (2017).

[9] Eurovision (2024)

A maximum of 44 countries can participate in the ESC, with 26 countries competing in the final. In the final, there are six guaranteed places: one for the host country and one for each of the members of the "Big Five" (France, Germany, Spain, Italy, and the United Kingdom). The songs must have a length equal to or less than 3 minutes (this rule applies only to the version performed during the live shows), and competing songs in a given year must not have been released commercially before the first day of September of the previous year to be eligible.

The votes of two distinct groups determine the scoring system of the ESC. The first group, the National Audiences, comprises televoters in each participating country who vote for their preferred songs, excluding their country's entry. Such votes result in the following assignment of points at the national level:

- 12 points to the most-voted song,
- 10 points to the second–most voted song,
- 8 points to the third–most voted song,
- 7 points to the next, down to 1 point for the song obtaining the tenth-best rank,
- 0 points for the other songs.

The second group, the National Juries, comprises 5 members appointed by each participating country. These jury members rank the songs from their most to least favourite: abstentions and ties are prohibited. Like the National Audiences, the juries cannot vote for the song from their own country, and the votes result in points from 12 to 1 for the 10 best–ranked songs. The five jury members in each country independently rank the songs (excluding their own), and their individual rankings are aggregated into a single national jury ranking.[10] The points assigned by the jury and the televoting are added together.

The contest entails two stages. The first stage consists of two semi–finals, which select 10 songs each, while the second stage, the Final, brings together the songs chosen in the semi–finals along with the songs of the "Big Five". It is important to note that the semi–final results are not made public before the Final.

The voting system described above is currently adopted in the ESC, but different systems were adopted in the past. [11] Since 2004, the organizing committee has introduced several changes in the semi–final structure, voting methods, and point system. From 2004 to 2007, the event employed a single semi–final round where the outcome was determined solely by televote, a novelty at that time. This period began with a more interactive approach, engaging the audience in decision-making.

In 2008, a significant shift occurred with introducing two semi–finals, diversifying the selection process. This year also marked the first instance of jury involvement, though limited, with the jury selecting the 10th

[10] See Table 6 for details on the aggregation of the jurors' vote.

[11] An overview on what has changed over the years can be seen in Tables 5 and 6 in Appendix A.1.

qualified song, signalling a move toward a more balanced approach between audience preferences and expert opinions. Despite this, the final vote remained entirely dependent on televoting.

The period from 2009 to 2015 saw the continuation of the two semi–final structures with a primary reliance on televoting, but the final voting method transitioned to a 50/50 split between televoting and jury voting. This period was significant for its approach to aggregated results, blending public opinion with expert judgment in the final decision. A further evolution was observed from 2016 to 2022. During these years, both the semi–final and final rounds adopted the 50/50 split between televoting and jury voting, and a dual set of points was introduced, reflecting a more nuanced approach to scoring. The separate presentation of televoting and jury results added a layer of transparency to the scoring process.

From 2023, the event has retained the two-set point system and the 50/50 split in the final voting. However, a significant change was made to the semi–final voting, which reverted to a televoting-only system. This change suggests a dynamic balancing act between audience engagement and expert judgment, continually adapting to the evolving context of the event.

These changes produced different data series used in our empirical analysis described in Section 4.

4 Strategic voting in positional systems

We define strategic voting as an individual's decision to cast a vote, ranking, or score that does not reflect their true preferences. We explore the phenomenon of strategic voting in the ESC, beginning with a simplified example of strategic behavior under the BC rule. Consider an election with four voters and four candidates labelled A to D. The alternative ranked 4th by a voter receives 1 point, the alternative ranked 3rd receives 2 points, the alternative in 2nd place receives 3 points, and the most preferred alternative receives 4 points. Assume that voters have the following preferences, where the last column represents the points obtained by options in each row if voters express their preferences sincerely:

Position	Voter 1	Voter 2	Voter 3	Voter 4	(Points)
1	A	B	C	D	4
2	B	A	A	B	3
3	C	C	D	A	2
4	D	D	B	C	1

In this context, option A will receive $4+3+3+2=12$ points, option B will receive $3+4+1+3=11$ points, option C will receive $2+2+4+1=9$ and option D will receive $1+1+2+4=8$ points, so alternative A will prevail. However, the race between alternatives A and B is close, and hence it is easy for Voter 2, who happens to prefer option B to option A, to vote strategically and alter the result by ranking options A to the bottom rather than in the second position. This would make option A gain 10 rather than 12 points, so

option B would prevail. Note that to act strategically, Voter 2 must know, or expect, (i) that A is likely to prevail over B, and (ii) that Voter 2's own vote could be pivotal in reverting this. More in general, each voter must assess the likelihood that a particular pair of alternatives is in a sufficiently close race for first place, such that their vote could shift the winning alternative from one to the other (Myerson and Weber, 1993): this is unlikely to happen if they ignore the preferences of other voters, and they all vote simultaneously.

An analogous strategic behaviour is likely to emerge also in the ESC, even though the contest does not use the standard BC but a slightly modified version. As described in Section 3, points in the ESC are assigned based on each voter's ranking, but with a specific distribution that bears some resemblance to the *Dowdall system* (Fraenkel and Grofman, 2014). Compared to the traditional BC, this system favours candidates who frequently rank in the top positions of individual rankings.

The manipulability of Borda-like rules is hardly surprising. In fact, when Borda himself was confronted with criticism that his proposed rule was vulnerable to strategic behaviour, he openly admitted that it was designed for "honest men." More broadly, according to Gibbard's theorem (Gibbard, 1973), any non-dictatorial social choice rule is inherently susceptible to manipulation.

Despite the widespread occurrence of strategic voting, studying it within the specific framework of the ESC is particularly insightful. The peculiar characteristics of this contest, outlined below, make it especially well-suited for this purpose.

In the ESC, voters and candidates have a clear association, as each participating country has its own set of voters (including both the popular vote and a jury) and a competing song. Since voters are expected to favour their own country's entry, the contest rules explicitly prohibit them from voting for their own nation's song. It is worth noting that while voters do not get any obvious material payoff from the ranking of their country's song, a large literature indicates that elections are also an important channel for expressing own identity (Brennan and Lomasky, 1997; Hamlin and Jennings, 2018). In the specific context of the ESC, this is clearly related to national identity (Kyriakidou et al., 2018).[12]

Building on this reasoning, we assume that voters, either jurors or televoters, would draw utility from the song of their own country ranking high. The combination of the prohibition against voting for one's own country's song and the willingness to favour it creates a scenario where strategic behaviour is likely to affect the vote in other ways. Indeed, voters still have ample chances to disadvantage competing countries' entries.

Now, let us examine the implications of these contest rules and voter behaviour for voting strategies in more detail.

Unlike a standard election, where only the winning candidate ultimately secures a given position while others receive no benefit, in the ESC, voters from a given country are likely to support their country's song regardless of its actual chances of winning. As a result, analyzing voting behaviour in the ESC requires a

[12] A similar argument applies, in the case of televoting, to the decision to cast a vote.

different approach from the one typically used in the literature, which has often focused on testing Duverger's Law (Duverger, 1959).[13] Indeed, the ESC functions as a contest rather than a conventional election. In this setting, a song's final ranking can become the main focus of the strategic vote, even if the song is very unlikely to win. Consequently, even improving a song's position without securing first place can be desirable, creating incentives for strategic behaviour.

All songs, in principle, compete with a voter's preferred entry. However, suppose the voter's primary goal is to improve their nation's song ranking. In that case, the main rivals are those in adjacent positions-specifically, songs that are likely to receive similar points. A strategic voter will, therefore, aim to disadvantage *close* competitors, where even a slight change in point distribution could lead to a position swap with their preferred song.

The kind of manipulation we seek to identify precisely affects votes cast for songs that are close competitors — according to some measure of distance — to the song from the voter's country. The most immediate strategic incentive for a voter from Country i would be to penalize a song from Country j if it ranks just above to facilitate a position change. However, a voter from Country j might anticipate this strategy and, in turn, down-rank Country i's song to maintain their advantage. Thus, the key variable in strategy formation is the *absolute* point difference between songs. While we also account, in our empirical analysis, for whether a voter's country ranks above or below a competitor, but our primary focus remains on the overall impact of point differentials.

It is now important to note that if voters were purely opportunistic — assigning votes *solely* based on the potential to improve their country's song's ranking — the system would collapse into a perfectly symmetric multiplayer dis–coordination game. In such a scenario, strategic behaviour would actually be impossible — there is no way to distribute points to disadvantage close competitors if *all competitors* are equally likely to be close. However, this is not what we observe in the ESC, where winning songs often accumulate significantly more points than the runner–ups, and winning countries change from year to year, depending on the quality of the songs.

We, therefore, assume that voters' utility function includes an element of honesty, meaning that they provide sincere assessments of each song's quality — presumably correlated across voters — and experience a utility loss when misrepresenting their true preferences. Formally, we define their utility as:

$$u_i(r_i, \delta_0, \ldots, \delta_{i-1}, \delta_{i+1}, \ldots, \delta_N)$$

where r_i represents the final ranking position of their country's song (for the sake of simplicity, we assume that it takes the value $r+i$ for i candidates that tie up in position r), and δ_j captures the absolute difference

[13] Duverger's Law predicts that in plurality elections, strategic voters concentrate their support on the two strongest candidates, abandoning their most preferred options if they have little chance of winning.

between the points awarded to song j by voter i and the points the voter believes the song genuinely deserves. The function u_i is decreasing in all its arguments and symmetric across the last $N-1$ arguments. As a result, voters' decisions reflect a compromise between trying to decrease r_i (strategic component) while also limiting δ_j (taste for honesty).

The case considered above, where voters are purely opportunistic, corresponds to u_i being constant in all but the first argument, making the game a zero-sum game: a decrease in r_i for one country's song necessarily coincides with a corresponding increase in r_j for another, without generating any additional overall benefit. However, the game ceases to be zero-sum when we account for the fact that each increase in δ_j leads to a net utility loss that is not offset by any corresponding gain. As a result, the game becomes a social dilemma: if all voters were to report their preferences truthfully, aggregate welfare would be maximized. Mathematically, this setup bears similarities to various social dilemmas found in the literature. For instance, if we limit the model to two players and assume that both voters perceive the two songs as being of equal quality; our framework resembles the model by Lockard and Tullock (2001). Consequently, the game primarily has corner solutions,[14] except in cases where mixed strategies are considered, akin to a continuous version of matching pennies. However, in this case, the game does not have a closed-form solution—depending on the specific parametrization (particularly, the functional form of the honesty constraint), equilibrium best responses may increase or decrease in response to the strategic behaviour of other players.

Lastly, it is important to note that strategic voting leads to multiple equilibria, creating a challenge for voters who must decide which equilibrium to target. As highlighted in the literature, a strategic coordination mechanism is needed to guide voter actions (Granzier et al., 2023), which may be provided by opinion polls (Fey, 1997; Myatt, 2007) or past election outcomes (Forsythe et al., 1993).

In the context of the ESC, strategic voters must identify the songs that are close competitors to their national song and vote accordingly. To get a sense of which songs are likely to be close competitors beyond their own assessment of the musical agreeableness of each song, voters have several sources at their disposition: these include odds published by betting companies, charts released by platforms like Spotify, opinion polls, media comments, and news surrounding the semi–final stage of the contest. In this sense, the semi–finals can also serve as a coordination mechanism, where songs compete in an election very similar to the one that will, in the final, determine the final ranking.

For completeness, we mention that what we analyze is not the only possible type of strategic voting in ESC: for instance, the existence of voting blocs (Budzinski and Pannicke, 2017), while possibly reflecting a normal degree of homophily, could also result from exchanges of votes, which however, we cannot identify.

[14] In absence of randomness, in a Nash equilibrium, exactly one voter engages in strategic voting — while the other instead reports preferences truthfully. A similar argument extends to the case with multiple voters and heterogeneous song quality.

5 Data description

Our study relies on three datasets described in the following section. Appendix A provides additional details on each data source.

5.1 Eurovision Votes

The Votes Dataset contains complete voting data from ESC editions between 2008 and 2023.

In Appendix A.1, we complement this information with a description of the evolution of the ESC voting system, covering both the structure of the contest (Table 5) and the scoring methods (Table 6).

For each pair of voting and voted countries, our data includes:

- the rankings according to both the televote and the jury,
- the points awarded by each, and
- the individual votes of each of the five jurors (where available).

However, such disaggregated data are not available for all years. In particular, the dataset can be divided into two periods:

1. from 2008 to 2015, we only observe the aggregate scores awarded by each country's jury and televote,
2. from 2016 to 2023, we separately observe the jury scores and the televote scores.

Table 7 presents an example of the voting matrix from the 2008 edition. In Table 8, we provide a detailed excerpt, specifically, the votes awarded by Albania (the first country in alphabetical order) in the 2022 final.

We limit our sample to editions from 2008 onwards, as 2008 marked the first year with two semifinal rounds. Throughout our analysis, we restrict the sample to votes between countries that both participated in the final, as there is no scope for strategic voting against a country that was eliminated during the semifinals.

Descriptive statistics for votes cast in the ESC final between 2008 and 2023 are reported in Table 9.

5.2 Spotify

The dataset contains the top 200 songs with the most streams on the Spotify platform. Data for each song includes the track's rank, title, artist, and three additional metrics: the peak position the track has achieved, its previous rank, and its current streaming streak, which appears to reflect the number of consecutive days the track has remained in the chart. Importantly, the dataset also provides each track's total number of streams, indicating the song's overall popularity. Figure 2 in Appendix A.2 shows a screenshot of the Spotify website, where previous information is reported.

Data are available for different time periods across countries. In Table 10, we report the number of observations and the corresponding periods of observation. Moreover, songs from different countries are not necessarily present among the top 200 positions in every national chart. Statistics on the popularity of ESC songs across countries are reported in Table 11, which displays the number of foreign countries where a song from a given country appears. Table 12 complements this information and shows the number of Eurovision songs appearing in the national chart of each country.

In addition to the rank in the position in the national charts, we also collect detailed musical characteristics for each of the 609 songs that participated in an ESC edition between 2008 and 2023. Each song was matched with its corresponding Spotify ID, and audio features were retrieved using the Spotify API. Available features include technical aspects of music composition, such as danceability, energy, key, and tempo, as well as contextual features like song duration, the gender composition of performers (male, female, or group), age, language, and the size of performing groups.[15]

This data offers an extensive quantitative description of the songs, allowing us to capture the nuanced dimensions of musical style and performance. Overall, the dataset offers a detailed look at music consumption trends across countries and over time, providing useful insights into market dynamics, artist popularity, and streaming habits.

5.3 Eurovision World

The website Eurovision World[16] runs every year a poll where visitors can guess who will win the ESC that year: during the period of the contest, the poll[17] is clearly visible on the website home page, and any visitor can participate. Just like in the official ESC contest, visitors cannot vote for their country's song (identified based on the IP they are connecting from). Moreover, each visitor can only vote once (although this constraint can be easily worked around). We downloaded the poll results for all years from 2015 to 2023 (excluding 2020), in terms of votes for each competing song. The overall number of votes has generally increased over the years, starting from 21,340 in 2015 to 415,375 in 2023. Figure 3 in Appendix A.3 shows a screenshot of the website, in the section reporting the poll results on the ESC winner in the year 2025.

In addition to the fan poll, the website also aggregates bookmakers' odds on ESC results.[18] These odds reflect the implied probabilities assigned by betting companies to each participating country's chances of winning. The website collects odds from multiple major bookmakers and provides both individual odds and a consolidated ranking. We collected this data alongside the poll data, as it offers a complementary, market-based perspective on expectations about the contest's outcome. Figure 4 shows a screenshot of the website, in the section reporting the odds released by different betting companies on the ESC winner in the

[15] See Table 13 for a complete list of variables and description, and Table 14 for descriptive statistics.
[16] `https://eurovisionworld.com`
[17] `https://eurovisionworld.com/esc/eurovision-2025-poll`
[18] `https://eurovisionworld.com/odds/eurovision`

year 2025.

6 Empirical analysis

Our empirical analysis of strategic voting in the ESC relies essentially on the following regression:

$$vote_{i,j,y} = \alpha + \beta\, distance_{i,j,y} + \gamma\, above_{i,j,y} + \delta\, distance_{i,j,y} \cdot above_{i,j,y} \tag{1}$$

where the dependent variable $vote_{i,j,y}$ is the *relative* score that (voters of) Country i award to the song of Country j in year y. This score is the difference between the number of points awarded by Country i to the song of Country j in year y and the average number of points awarded to this song by the voters of all other countries but Country i.

The main regressor in Equation (1) is the variable $distance_{i,j,y}$, which is meant to capture the distance between two songs in the rankings: hence, low values should signal that voters of Country i perceive the song from Country j as a close competitor in the ESC ranking, incentivizing strategic behaviour. This distance is calculated according to two different approaches:

- *Internal metrics*: the distance is calculated as the difference in the total number of points obtained in the ESC, while in our main specification these are computed in the semi–finals, we consider different alternatives also based on the final;
- *External metrics*: the distance is calculated as the difference between the standings of the songs according to metrics that are external to ESC, such as Spotify charts, song musical features, betting odds, and fan polls.

In Equation (1), we allow for the possibility that the strategic behaviour of voters is affected by the *sign* of the difference in total points. Under this assumption, the score awarded to the song of Country i would be affected not only by the distance from the song of Country j but also by the circumstance that the song of Country i ranks above the song of Country j. To this aim, we include the dummy $above_{i,j,y}$, which takes the value 1 if and only if i ranks above j, also in interaction with $distance_{i,j,y}$. In this setting, strategic voting is associated with a positive sign for the coefficient β: as the relative positions of the national song and a competing country's song become closer, voters have an incentive to award fewer points to the competing song.

In this setting, strategic voting is associated with a positive sign for the coefficient β: as the relative positions of the national song and the song of another competing country get closer, voters have an incentive to award the competing song fewer points. As mentioned in Section 4, a voter has an incentive both to disadvantage a close competitor ranked higher (to attempt a position swap) and to penalize one ranked

lower (to counteract a possible attempt from the competitor). Although these two effects are expected to be roughly symmetric in equilibrium, in practice, the second type of reasoning might be less evident to voters (e.g., from a bounded rationality perspective). This would be reflected in a negative coefficient associated with the interaction between $above_{i,j,y}$ and $distance_{i,j,y}$. The variable $above_{i,j,y}$ on its own is included mainly for completeness, as it has no direct interpretation: votes for songs ranked higher are not expected to deviate from the average systematically.

Lastly, we need to control for systematic biases and voting patterns, as a large body of literature, reviewed by Mantzaris et al. (2018), has documented persistent clusters in voting behaviour between countries. For this purpose, we rely on data from past editions of the ESC and include, in most specifications, the variable $past_{i,j,y}$, which represents the average points assigned by Country i to Country j over the three years preceding year y. This variable is intended to capture the influence of a potentially broad set of cultural and social factors on voting behaviour.

6.1 Internal metrics

We begin by analyzing definitions of $distance_{i,j,y}$ based on ESC data. Specifically, we consider the absolute difference in points received by the songs of two countries, measured either (i) in the final rankings or (ii) in the semi–finals. Both approaches have their own advantages and disadvantages.

The main advantage of option (i) is that $vote_{i,j,y}$ and $distance_{i,j,y}$ come from the same ranking and are thus immediately comparable. On the other hand, strategic voting under this definition requires assuming that voters can forecast the final rankings — akin to assuming that players in a complex simultaneous game will play a Nash equilibrium. A second disadvantage is that the dependent variable $vote_{i,j,y}$ itself contributes to determining the final rankings, so β may be affected by endogeneity issues, although such bias should be limited given the minor weight of a single vote.

Option (ii) addresses both disadvantages: it guarantees that $distance_{i,j,y}$ is salient to voters during the final, at the cost of reducing the sample size (since estimation can only be based on country pairs that competed in the same semi–final and reached the final). It is important to note that the semi–final rankings are only published after the competition ends, so voters do not (in theory) observe $distance_{i,j,y}$ directly. Nonetheless, the semi–finals convey relevant information about the competitiveness of the various performances. Jurors — and potentially televoters, through media discourse — can also discuss the event and thus gauge the relative success of each candidate.

We begin with option (i). Column (1) of Table 1 presents a minimal version of Equation (1), where we omit $above_{i,j,y}$ and its interaction with $distance_{i,j,y}$. We find a positive and strongly significant coefficient for β, confirming the tendency to award lower votes to close competitors (the magnitude of the effect is

Table 1: Eurovision final–based *distance*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	-0.028	-0.001	-0.426***	-0.238***	-0.426***	-0.366***	-0.485***
	(0.022)	(0.026)	(0.038)	(0.033)	(0.063)	(0.073)	(0.078)
above		-0.055	-0.067*	-0.062	-0.080	-0.011	-0.149
		(0.045)	(0.041)	(0.050)	(0.081)	(0.110)	(0.107)
distance	0.447**	0.646***	0.711***	0.559***	0.855***	0.995***	0.715***
	(0.179)	(0.161)	(0.158)	(0.188)	(0.187)	(0.282)	(0.235)
distance:above		-0.396	-0.876**	-0.322	-0.759*	-1.025*	-0.493
		(0.380)	(0.370)	(0.423)	(0.412)	(0.585)	(0.493)
past			0.338***		0.323***	0.251***	0.395***
			(0.024)		(0.042)	(0.048)	(0.046)
voters	Mean	Mean	Mean	Mean	All	Jury	Telev.
pairwise FE				✓			
years					$\geq$ 2016	$\geq$ 2016	$\geq$ 2016
Observations	9552	9552	9552	9552	9000	4500	4500
R^2	0.001	0.002	0.101	0.450	0.034	0.019	0.058
Adjusted R^2	0.001	0.001	0.101	0.314	0.034	0.018	0.057

Note: Estimation of Equation (1) for different specifications of *vote*. For better readability, *distance* is expressed in thousands of points (while *vote* is expressed in points). Years 2008–2023, excluding 2020. "Mean" indicates the mean of jury and televote scores if both are available, and otherwise whichever is available. *p<0.1; **p<0.05; ***p<0.01.

discussed later).[19] The effect is robust to additional controls: it remains positive and significant when including $above_{i,j,y}$ and its interaction with $distance_{i,j,y}$ (column (2)), when controlling for $past_{i,j,y}$ (column (3)), and when adding voter–voted pairwise fixed effects (column (4)).

A separate analysis of jury and televote scores is feasible for years from 2016 onwards. In column (5), we restrict the sample accordingly and treat jury and televote votes separately, yielding two observations per voting–competing country pair per year. The estimated effect remains strongly significant and slightly larger than over the full period, suggesting that strategic voting may have intensified in recent years. Focusing separately on jury (column (6)) and televote (column (7)) votes, we find that the strategic vote is strongly significant for both categories, and slightly stronger for jurors — an observation compatible with the idea that, in small groups such as juries, it is easier to have a pivotal role and anticipate the behavior of other voters (see discussion in Section 4).

Overall, these results suggest a robust, and possibly increasing over time, presence of strategic voting: given a domestic and a foreign song, if they are close in terms of total points, domestic voters tend to penalize the foreign competitor. As expected, the coefficient for $above_{i,j,y}$, which has no obvious economic interpretation (its mean is by construction equal to zero), is never significant. In contrast, the interaction term

[19] Where separate jury and televote scores are available (from 2016 onward), we use their mean to define $vote_{i,j,y}$.

$distance_{i,j,y} \cdot above_{i,j,y}$ often shows a negative and, in some specifications, marginally significant coefficient. At first sight, this could seem surprising: one might expect strategic behaviour to be stronger towards countries ranked above, the possibility of overtaking a competitor being more salient than preventing being overtaken. However, a more likely explanation is that countries whose songs are in the top positions, and have a real chance of winning — that is, countries for which the variable *above* is more often equal to zero — exert more strategic effort to improve their ranking.

The variable $past_{i,j,y}$, included to control for persistent cross-country voting patterns, is positive and strongly significant. As widely documented in the literature, ESC votes reflect cultural, political, or geographical proximity and the existence of established voting blocs.[20] This is further evidenced by the sharp increase in R^2 when including $past_{i,j,y}$ (compare column (3) to column (4)) and when replacing it with pairwise fixed effects (column (5)). The slight increase in the coefficient of $distance_{i,j,y}$ from column (2) to column (3) suggests that the strategic component of votes tends to oppose, rather than align with, cross-country voting patterns. However, this interpretation should be treated with caution, as including fixed effects (column (4)) results in a mild decrease of the effect. It is important to note that $past_{i,j,y}$ and fixed effects capture different dimensions of voting persistence. Whereas fixed effects absorb all stable pairwise heterogeneity, $past_{i,j,y}$ is constructed using voting patterns from only the three years preceding a given contest, and thus may be more sensitive to shifts in cross-country relationships over time.

In Table 2, we implement option (ii), where the variable $distance_{i,j,y}$ is derived from the ESC semi–finals rather than the final. The specifications across columns reproduce those used in Table 1. Overall, strategic voting appears to be substantially more pronounced, approximately five times larger, when using semi–final performances, and still statistically significant in most specifications.

As in Table 1, the estimated effect strengthens when controlling for $past_{i,j,y}$, which again displays a positive and statistically significant coefficient. However, the main effect of interest loses significance when pairwise fixed effects are introduced in column (4), or when the estimation is restricted to the jury (column (6)) or to the televote (column (7)). This likely reflects the significant reduction in the sample size caused by defining $distance_{i,j,y}$ based on the semi–finals (while the number of voter–candidate pairs remains largely unchanged).

Thus, strategic voting seems to be more strongly linked to performances in the semi–finals than to expected final outcomes. This result is straightforward to interpret: even though semi–final rankings and full results are not officially published before the final, voters can nonetheless assess the quality of performances through live observation and extensive media coverage.[21] Through media reports, commentary, and discussions, jurors and televoters can form impressions of which performances are strongest, even without access to formal rankings.

[20] See Mantzaris et al. (2018) for a review of these issues.

[21] See, for example, `https://eurovisionworld.com`, arguably the most popular and informative unofficial Eurovision website.

Table 2: Main results — *distance* based on Eurovision semi–final

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Intercept	0.238***	0.240***	-0.395***	1.525***	-0.319*	0.029	-0.666***
	(0.050)	(0.071)	(0.097)	(0.162)	(0.177)	(0.210)	(0.211)
above		-0.003	0.047	-0.077	-0.085	-0.382	0.212
		(0.098)	(0.103)	(0.180)	(0.200)	(0.322)	(0.261)
distance	2.594***	2.517**	3.466***	1.714	3.126**	2.401	3.850
	(0.834)	(1.155)	(1.084)	(1.881)	(1.467)	(1.601)	(2.343)
distance:above		0.153	-2.005	0.809	-1.361	2.093	-4.815
		(1.690)	(1.702)	(3.270)	(2.141)	(2.742)	(3.216)
past			0.465***		0.563***	0.496***	0.630***
			(0.034)		(0.076)	(0.094)	(0.080)
voters	Mean	Mean	Mean	Mean	All	Jury	Telev.
pairwise FE				✓			
years					$\geq$ 2016	$\geq$ 2016	$\geq$ 2016
Observations	2700	2700	2700	2700	2520	1260	1260
R^2	0.004	0.004	0.152	0.657	0.075	0.054	0.109
Adjusted R^2	0.003	0.003	0.151	0.357	0.073	0.051	0.106

Note: Equivalent to Table 1, except that *distance* is computed based on the Eurovision semi–finals rather than the final. Years 2008–2023, excluding 2020. *p<0.1; **p<0.05; ***p<0.01.

Interestingly, unlike Table 1, Table 2 suggests a more marked presence of strategic voting on behalf ot the televote (column (7)) than on behalf of jurors (column (6)). This suggests that jurors may rely on additional information beyond semi–final performances when casting strategic votes.

In terms of economic significance, we take as a reference the estimate of β from column (3) of Table 2, which is 3.466, and run a simple back-of-the-envelope calculation to put the effect in perspective. Based on figures from the ESC 2023 final (average distance between countries: 143.81 points; 25 countries competing), approximately 12.95 out of the 58 points allocated by each country to other songs are attributable to strategic considerations. This amounts to roughly 22.34% of total points, indicating a non-negligible impact of strategic voting. The actual impact is likely to be even larger if the success of countries in ESC correlates with the propensity to vote for each other. For instance, one could expect that *in the absence of strategic voting*, countries that typically rank towards the bottom of the ranking tend to sympathesize with, and hence support, each other naturally: this would make our estimates of strategic voting downward biased.

Note, lastly, that while voters from all countries may wish to improve their country's final position, it is natural to expect that voters from countries with a realistic chance of winning have stronger incentives to vote strategically. To test this hypothesis, we restrict the analysis to countries that finished within the top 10 in the final ranking. The results show that the effect of strategic voting is indeed concentrated among higher-ranked countries, where it is both larger in magnitude and statistically significant. Detailed results

are reported in Table 15 in Appendix B.

As a placebo test, we replicate specifications in Table 1 computing *distance* based on the *previous* ESC edition's final.[22] As expected, in all specifications lagged *distance* has a coefficient close to zero and is not statistically significant.

6.2 External measures

The results above confirm that voters in the ESC engage in strategic voting, shaping their decisions around information available during the contest. However, ESC performances are not the only source of information accessible to voters seeking to enhance their country's performance. ESC songs are often publicly available beforehand, particularly when selected through national contests.

In what follows, we re-estimate Equation (1) using alternative definitions of $distance_{i,j,y}$ based on measures of a song's potential success that do *not* originate directly from ESC official data. We refer to these as "external" measures. This exercise serves two purposes. First, we aim to test whether votes might be influenced not by strategic manipulation of ESC rankings, but by other considerations. For instance, if two countries' songs are strong commercial competitors outside the ESC context, voters might seek to disadvantage each other independently of the contest's internal dynamics. Second, as a form of robustness test, we seek to corroborate the evidence of strategic voting presented above using independent data sources.

We consider four different external measures:

1. **Spotify national charts.** These rankings reflect the popularity of each song among listeners in different countries and offer insight into how a song may be perceived as a strong competitor. For each song, we construct a score based on the number of songs ranked *below* it in each national chart, and sum these scores across countries.

2. **Song features.** We retrieve audio features for each song using the Spotify Web API, which provides quantitative descriptors such as danceability, energy, valence, tempo, and acousticness. These features, normalized between 0 and 1, offer a multidimensional representation of a song's musical properties. A detailed list of these features can be found in tables 14 and 13. This information captures intrinsic musical characteristics that may influence a song's appeal in the ESC context. We then estimate an OLS model regressing each song's performance in ESC over its musical features, and employ the estimated coefficients to predict the success of a song.

3. **Bookmakers odds.** We use average betting odds across bookmakers to estimate each song's chances of winning the ESC. Since odds are inversely related to winning probabilities, we take their *reciprocal*

[22] The specification with pairwise fixed effects (column (4) in Table 1) cannot be replicated due to the significant sample reduction — for each year y, only countries i, j that both take place in a final *and* in the final of the previous year can be considered.

as a proxy for quality. Thus, a value $x \in (0, 1)$ approximately corresponds to a probability x of winning, abstracting from bookmaker overrounds and biases. For ease of interpretation, x is then multiplied by 100, so that the associated coefficient represents the marginal effect for each percentage point increase in winning probability.

4. **Online poll results.** We use the number of votes each song received in an online poll conducted on `eurovisionworld.com`.

For each measure, $distance_{i,j,y}$ is defined as the difference between song i and song j according to the specific metric. Since data availability varies across measures, the number of observations differs accordingly.

In principle, one might expect bookmakers' odds to predict ESC outcomes better than an online fan poll. However, bookmakers' odds can reflect the distribution of bets rather than purely predictive models, embedding systematic biases such as home-country bias (Staněk, 2017), which is likely to affect ESC betting markets given the strongly different population sizes across countries. By contrast, in the online poll, voters cannot vote for their own country, thus eliminating this bias by design.

In practice, results are mixed when correlating these external measures with the actual points received in the ESC final. For instance, in 2023, bookmakers' odds had a higher correlation with final points than the online poll (0.824 vs. 0.816), but the opposite occurred in 2022 (0.700 vs. 0.886). The other two measures show substantially lower correlations with final points (around 0.5 for Spotify rankings and around 0.2 for song features).

Table 3: External *distance* measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Intercept	-0.219***	-0.137***	-0.300***	-0.202***	-0.124**	-0.281***	-0.173***	-0.118***	-0.228***	-0.176***	-0.125***	-0.228***
	(0.037)	(0.040)	(0.053)	(0.045)	(0.061)	(0.053)	(0.025)	(0.029)	(0.029)	(0.029)	(0.035)	(0.035)
above	0.034	-0.006	0.075	-0.025	-0.085	0.034	-0.051	-0.071	-0.032	-0.046	-0.057	-0.034
	(0.042)	(0.061)	(0.063)	(0.059)	(0.086)	(0.065)	(0.032)	(0.044)	(0.040)	(0.029)	(0.041)	(0.036)
distance	-0.004	-0.016	0.008	6.237	6.912	5.562	2.782***	2.520**	3.045***	0.003***	0.003*	0.004***
	(0.013)	(0.013)	(0.017)	(25.364)	(36.352)	(25.036)	(0.789)	(1.085)	(0.794)	(0.001)	(0.002)	(0.001)
distance:above	-0.032	-0.003	-0.060**	-16.513	13.924	-46.950	-4.615**	-3.319	-5.911***	-0.005**	-0.003	-0.007**
	(0.020)	(0.029)	(0.026)	(55.232)	(75.982)	(55.776)	(1.988)	(3.062)	(1.877)	(0.002)	(0.003)	(0.003)
past	0.195***	0.143***	0.246***	0.182***	0.135***	0.229***	0.162***	0.125***	0.199***	0.161***	0.125***	0.197***
	(0.028)	(0.036)	(0.031)	(0.024)	(0.029)	(0.029)	(0.020)	(0.023)	(0.023)	(0.020)	(0.023)	(0.023)
years	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2015	$\geq$ 2016	$\geq$ 2016	$\geq$ 2015	$\geq$ 2016	$\geq$ 2016
distance	Charts	Charts	Charts	Features	Features	Features	Bets	Bets	Bets	Poll	Poll	Poll
delta	Final	Final	Final	Final	Final	Final	Final	Final	Final	Final	Final	Final
voters	Mean	Jury	Televote	Mean	Jury	Televote	Mean	Jury	Televote	Mean	Jury	Televote
Observations	5540	5540	5540	6300	6300	6300	9000	9000	9000	9000	9000	9000
R^2	0.036	0.017	0.064	0.035	0.018	0.062	0.034	0.018	0.057	0.033	0.018	0.057
Adjusted R^2	0.035	0.017	0.063	0.034	0.017	0.061	0.033	0.018	0.057	0.033	0.017	0.057

Note: Estimation results using "distance" based on external measures: columns (1) to (3) use Spotify rankings; columns (4) to (6) use song features; columns (7) to (9) use betting odds; columns (10) to (12) use online poll votes. "Mean" refers to the average of jury and televote, where both are available. *p<0.1; **p<0.05; ***p<0.01.

Table 3 presents the results of estimations where the distance between competing songs is based on external metrics. We find no evidence of strategic voting when using measures related to commercial success

(Spotify rankings, columns (1)–(3)) or musical features (columns (4)–(6)). By contrast, significant evidence of strategic voting emerges when using measures linked to predictions of ESC success: specifications based on betting odds (columns (7)–(9)) and poll results (columns (10)-(12)) feature positive and statistically significant coefficients (only marginally so column (11)), with a particularly large effect for televote.

These findings reinforce the view that voters' strategic behaviour is primarily shaped by information internal to the ESC contest itself. Since strategic voting aims to influence a country's final ranking, the most salient information comes from within the ESC, including performances, voting blocs, and the structure of the competition. Those external measures that are oblivious to these dynamics appear less effective in capturing strategic voting patterns. This conclusion holds for both jury and televote results, although the magnitude of the effects varies.[23]

As a final approach to assess the relevance of external measures in identifying strategic voting, we estimate specifications that include both internal and external distance metrics. Indeed, strategic voters may form their expectations about competing songs based on information from within the ESC *and* from external sources. In essence, we combine some of the specifications from Table 2 with those from Table 3, focusing on the external distances that previously demonstrated explanatory power — namely, based on betting odds and fan polls.[24]

Table 4 presents the results. We first observe that while the coefficient for internal distance remains positive in all cases, it is smaller, and in some cases no longer statistically significant — compare, for example, columns (1) and (4) with column (3) of Table 2. This is not entirely surprising, as the newly added external distance measures are positively correlated with the internal ones. However, the relevance of both internal and external distances is overall confirmed. More specifically, we observe that external distances appear to be more relevant for the strategic behavior of televoters (columns (3) and (6)), while internal distances explain more of the strategic behavior of jurors (columns (2) and (4)), and both contribute to the identification of strategic behavior when we consider all votes (columns (1) and (4)). This is in line with the intuition that jurors can extract more information from the competition itself, as opposed to televoters, who are mostly influenced by external information sources. Despite the strong correlation between betting odds or poll rankings and ESC results, each variable captures a distinct nuance of strategic voting behavior.

6.3 An attempt at strategy cleaning

The main result we find in our analysis is that Eurovision voters act strategically; we have discussed in Section 6.1 that the extent of this strategic vote is economically significant, amounting to around 22.34% of total points, enough to potentially affect the final rankings.

To gauge the relevance of this distortion, we consider the last years of our sample, 2022 and 2023, and

[23] Additional robustness checks using alternative specifications are reported in Appendix B, Table 16.
[24] The results of the specification using Spotify–based distance measures are reported in Table 17 in Appendix B.

Table 4: Combination of internal and external distances: bets and poll

	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	-0.163**	-0.052	-0.274***	-0.203***	-0.083	-0.322***
	(0.068)	(0.087)	(0.084)	(0.076)	(0.114)	(0.081)
above	-0.044	-0.067	-0.021	0.052	0.029	0.075
	(0.091)	(0.107)	(0.101)	(0.070)	(0.117)	(0.068)
Ext. dist	6.442***	4.600	8.285***	0.008***	0.005*	0.011***
	(1.811)	(2.853)	(2.553)	(0.002)	(0.003)	(0.002)
Int. dist.:above	-13.025***	-9.955*	-16.094***	-0.018***	-0.016**	-0.020***
	(3.222)	(5.194)	(4.094)	(0.005)	(0.007)	(0.005)
past	0.285***	0.252***	0.318***	0.281***	0.249***	0.313***
	(0.038)	(0.046)	(0.040)	(0.038)	(0.046)	(0.040)
Int. dist.	1.227**	1.761**	0.694	1.244**	1.808***	0.679
	(0.573)	(0.778)	(0.898)	(0.510)	(0.701)	(0.734)
years	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018
internal d.	Semif.	Semif.	Semif.	Semif.	Semif.	Semif.
external d.	Bets	Bets	Bets	Poll	Poll	Poll
dependent	Final	Final	Final	Final	Final	Final
voters	Mean	Jury	Telev.	Mean	Jury	Telev.
Observations	2520	2520	2520	2520	2520	2520
R^2	0.080	0.057	0.117	0.078	0.056	0.112
Adjusted R^2	0.078	0.055	0.115	0.077	0.055	0.111

simulate how the ranking would look without strategic voting. Our approach to the identification of strategic voting is based on interacting the variable of interest, "distance", with the voting country:

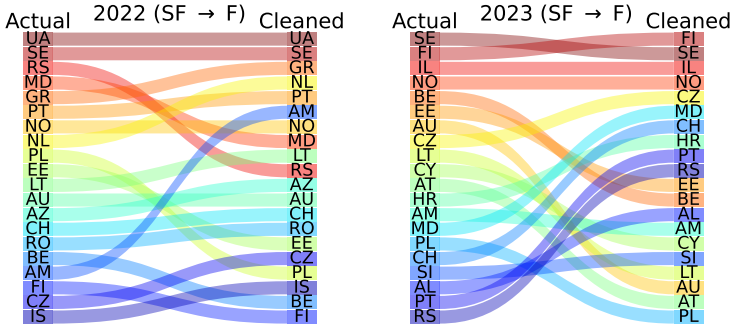
$$vote_{i,j,y} = \alpha + \eta^{\bar{i}} \cdot distance_{i,j,y} \cdot I_i^{\bar{i}} \tag{2}$$

where $I_i^{\bar{i}} = 1$ only for country $i = \bar{i}$, and hence $\eta^{\bar{i}}$ is a country–specific coefficient measuring each country's propensity (assumed to be constant over the time interval analyzed) to vote strategically. We do not consider a $\eta^{\bar{i}}$ coefficient meaningful *per se*: it is only based on relatively few observations (votes expressed by Country $\bar{i}$) and could be affected both by overfitting and systematic country–specific biases. Rather, we employ the collection of coefficients $\eta^{\bar{i}}$ across countries to estimate the overall number of points that each country obtained or lost due to strategic behaviour. Namely, since $\eta^{\bar{i}}$ is expressed as "additional points from i to j for each point of distance between them in the ranking" for each applicable pair of countries i, j, we subtract $\eta^{\bar{i}} \cdot distance_{i,j,y}$ points to j's overall points received.

As in the analysis above, we restrict this exercise to only countries i and j *both* participating in the final, as in the other cases, there is no scope for strategic behavior. The result, in Figure 1, shows that changes

of position are much more likely in the bottom part of the ranking, which is to be expected given that differences in points tend to be smaller, but they would still amount to a change in the first place in 2023, when Sweden appears to have overcome Finland due to the effect of strategic voting. Quantitatively similar results are obtained if we restrict the estimation of strategic voting to either the jury or the televote (and shrink the time interval accordingly): see Appendix C for details.

Figure 1: Simulation of 2022 and 2023 final ranking after cleaning from estimated strategic effect



It is important to take the results of this simulation for their face value: the assumption that strategic behaviour is constant at the country level is hard to substantiate, and hence we cannot claim to have reconstructed the 2022 and 2023 rankings as they would have been in the absence of strategic voting. What we show with this exercise is that the *pervasiveness* and *magnitude* of strategic voting are well sufficient to alter profoundly rankings — including in the top positions.

7 Conclusions

This work contributes to understanding strategic behaviour in positional voting, focusing on a context, the Eurovision Song Contest, which is particularly relevant for two reasons. First, because of the conflict of interest due to countries having both the role of voters (via their juries and televote participants) and of candidates (via their competing song) in the same election is particularly evident, and easy to exploit empirically. Second, and relatedly, because of the countermeasures to strategic voting set in the voting rules — namely, the impossibility of voting for one's country.

We find that despite these countermeasures, strategic voting is present and relevant, as voters systematically attribute less points to close competitors — that is songs that are close in the ranking — to their country's song. This holds both when we analyze distance in the actual ESC rankings and when we consider external forecasts of such rankings based on either betting odds or on an online poll run every year by an unofficial website. However, no such effect emerges if we employ measures of either commercial success, or

agreeableness, of the songs, confirming that the strategic voting comes indeed from the desire to alter the ESC rankings.

Our findings represent novel empirical evidence of strategic voting in positional systems outside of the lab. They should be taken as a cautionary tale for the appropriate choice of voting systems, particularly in international contexts. While the shortcomings of the most common voting systems — such as the plurality rule — are well known, theoretically and empirically (Hartvigsen, 2008), commonly used positional voting systems also have strong weaknesses, particularly related to the scope for manipulating one's vote. This is true even in a case where the incentive to vote strategically is so obvious — given that the countries are at the same time voters and candidates — as to make it relatively easy to deploy a countermeasure — the impossibility to vote for the song of one's country. So it is likely to hold *a fortiori* in those cases, common for instance in international institutions, where conflict of interest is widespread but not as blatant. Hence, our results also highlight the importance of ongoing theoretical research on less manipulable voting systems (Campbell and Kelly, 2009; Gori, 2021).

We also show that strategic voting is not a trait of only sophisticated voters: it can be found among participants in the ESC televote rather than just in the vote of the juries. In fact, in some of our specifications, televote participants express more strategic voting than the juries, possibly because they vote anonymously, or are less trained or interested in assessing the objective qualities of competing songs.

Beyond the word of warning about the manipulability of positional voting, we also highlight the importance of voting "under the veil of ignorance", that is, the possible nefarious effect of multi—stage voting procedures where information is revealed during the election. Having no information on the relative standing of possible competitors will likely reduce the scope for strategic voting.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this manuscript the authors used the large-language-model tool *ChatGPT* (OpenAI, San Francisco, USA) solely to perform spelling and grammar checks and to harmonise the styling of tables, thereby improving the readability of the text. All output was generated under direct human oversight; the authors subsequently reviewed and edited the material and accept full responsibility for the final content. No other aspect of the research, analysis, or writing involved generative AI or AI-assisted technologies.

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A Additional data descriptives

A.1 Eurovision Votes

Table 5: Summary of Eurovision Voting System Evolution (2004–present)

Period	**Voting Type**	**Details**
Before 2004	Final only	Voting included both jury and televote.
2004–2007	Single semifinal	Voting based solely on televote.
2008	Two semifinals	Jury voting introduced in semifinals; final based on televote.
2009–2015	Final only	Voting split 50/50 between televote and jury.
2016–2022	Semifinals and final	Both phases used a 50/50 split between televote and jury.
2023–present	Semifinals	Televote only in semifinals; jury involvement only in the final.

Note: This table outlines the evolution of the Eurovision Song Contest voting systems, detailing the phases, methods, and structural changes from 2004 to the present.

Table 6: Voting Systems adopted in the Eurovision

Year	Points Awarded	Voting Method
1956	(10–1) × 2	Two jurors per country rated each song on a scale of 1 to 10 points.
1957–1961	10–1	Ten-member juries distributed 10 points among their favourite songs.
1962	3-1	Ten-member juries awarded points to their three favourite songs.
1963	5-1	1962: Twenty-member juries awarded points to their five favourite songs.
1964–1966	5, 3, 1 / 6, 3 / 9	Ten-member juries distributed 9 points in three possible ways.
1967–1970	10–1	Ten-member juries distributed 10 points among their favourite songs.
1971–1973	10–2	Two-member juries (one aged over 25 and the other under 25, with at least 10 years between their ages) rated songs between 1 and 5 points.
1974	10–1	Ten-member juries distributed 10 points among their favourite songs.
1975–1996	12, 10, 8–1	All countries had at least eleven jury members that would award points to their top ten songs.
1997		Twenty countries had jury members and five countries used televote to decide which songs would get points.
1998–2000		Televoting used in all countries.
2001–2002		Choice between full televoting and mixed system.
2003		Telephone/SMS voting in all countries.
2004–2008; 2009 (semi-finals)		Televoting and/or SMS-voting used.
2009 (final); 2010–2012		All countries use televoting and/or SMS-voting (50%) and five-member juries (50%).
2013–2015		The jurors and televoting each rank all the competing entries.
2016–2017	(12, 10, 8–1) × 2	The jury and the televote each award an independent set of points. First the jury points are announced and then the televoting points are calculated together before being added to the jury points, effectively doubling the points which can be awarded in total.
2018–2022		The same as in 2016–17, but the points from a country's jurors are aggregated with exponentially decreasing weights to form the overall jury ranking.
2023	12, 10, 8–1 (semi-finals) (12, 10, 8–1) × 2 (final)	Semi-finals: only televote. Final: independent jury and televote points.

Note: This table provides a historical overview of the Eurovision Song Contest's voting system from 1956 to 2023. It details the points awarded each year and the voting methods, illustrating the process's evolution. The table encompasses various voting methods, including jury-based, televote, and mixed systems, reflecting changes in technology and participation over the decades.

Table 7: Voting Matrix for the 2008 Final

rcv_cty vtn_cty	Albania	Armenia	Azerbaijan	...	...	...	France	United Kingdom	Georgia
Andorra	0.0	0.0	7.0	...	...	...	3.0	0.0	0.0
Albania	NaN	2.0	0.0	...	...	...	0.0	0.0	0.0
Armenia	0.0	NaN	0.0	...	...	...	4.0	0.0	10.0
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
San Marino	3.0	8.0	0.0	...	...	...	0.0	6.0	0.0
Turkey	1.0	10.0	12.0	...	...	...	0.0	0.0	4.0
Ukraine	0.0	7.0	10.0	...	...	...	0.0	0.0	8.0

Note: This matrix represents the voting patterns during the 2008 Eurovision Song Contest final. Each cell shows the number of points awarded by the voting country (row) to the receiving country (column). `NaN` indicates cases where a country could not vote for itself.

Table 8: Example of votes breakdown in the final of 2022

Voter Country	Receiving Country	Televote Rank	Jury Rank	Jury Points	Televote Points	j1	j2	j3	j4	j5
Albania	Armenia	17	7	4	0	8	5	9	9	10
Albania	Australia	21	13	0	0	12	13	23	16	7
Albania	Azerbaijan	18	8	3	0	6	17	17	12	6
Albania	Belgium	14	9	2	0	13	7	8	11	16
Albania	Czech Republic	24	21	0	0	19	14	21	20	18
Albania	Estonia	6	12	0	5	10	8	24	17	12
Albania	Finland	9	16	0	2	21	19	5	19	20
Albania	France	22	24	0	0	23	23	18	23	21
Albania	Germany	20	17	0	0	9	16	16	10	19
Albania	Greece	1	11	0	12	15	10	19	8	8
Albania	Iceland	25	14	0	0	14	21	7	13	14
Albania	Italy	3	1	12	8	1	2	2	1	2
Albania	Lithuania	19	15	0	0	16	18	6	14	23
Albania	Moldova	10	23	0	0	25	22	14	22	24
Albania	Netherlands	5	5	6	6	5	6	11	3	3
Albania	Norway	16	20	0	0	17	20	15	18	15
Albania	Poland	13	19	0	0	11	15	25	21	17
Albania	Portugal	15	10	0	0	20	12	13	5	11
Albania	Romania	12	25	0	0	18	25	22	25	22
Albania	Serbia	8	22	0	3	24	24	12	24	25
Albania	Spain	4	6	5	7	3	9	10	7	9
Albania	Sweden	11	3	8	0	7	1	4	4	5
Albania	Switzerland	23	18	0	0	22	11	20	15	13
Albania	Ukraine	2	4	7	10	4	3	3	6	4
Albania	United Kingdom	7	2	10	4	2	4	1	2	1

Notes: This table provides a detailed breakdown of the voting in the Eurovision 2022 final. Each row represents a voting country's allocation of points to various receiving countries. Columns include the Televote rank, jury rank , jury points, televote points, and individual jury member votes (j1 to j5).

Table 9: Summary Statistics – Votes in the ESC Final from 2008 to 2023

Country	Times Voted	Times Non-Zero Voted	Points Received	Mean Points	Non-Zero Mean	# in Final
Albania	870	181	545	1.50	4.70	9
Armenia	754	151	932	2.40	4.80	10
Australia	464	110	867	3.10	4.20	7
Austria	696	154	707	2.60	4.60	7
Azerbaijan	870	179	1526	3.00	5.50	13
Belarus	696	140	166	0.90	3.80	5
Belgium	870	177	863	2.80	4.50	8
Bulgaria	638	141	629	3.90	4.80	4
Croatia	754	162	249	1.20	3.10	5
Cyprus	812	170	567	1.60	4.20	9
Czech Republic	580	139	258	1.60	3.00	4
Denmark	870	177	1004	2.50	5.00	10
Estonia	870	179	733	2.00	4.30	9
Finland	870	184	649	1.80	4.80	9
France	870	185	1003	1.70	3.80	15
Georgia	812	175	482	2.00	5.40	6
Germany	870	182	773	1.30	4.90	15
Greece	870	181	1140	2.40	5.40	12
Hungary	638	135	518	1.60	3.80	8
Iceland	870	174	850	2.20	5.10	10
Ireland	870	185	263	1.30	4.20	5
Israel	870	178	935	2.40	4.40	10
Italy	696	157	1931	4.10	5.60	12
Latvia	870	182	335	2.70	4.80	3
Lithuania	870	176	631	1.60	3.90	10
Malta	870	181	481	1.80	3.80	7
Moldova	870	181	868	2.20	4.40	10
Montenegro	638	135	81	1.10	7.40	2
Netherlands	870	181	904	2.90	4.70	8
North Macedonia	812	167	223	2.80	4.90	2
Norway	870	177	1569	3.10	4.70	13
Poland	754	170	354	1.30	3.00	7
Portugal	754	161	777	2.50	5.40	8
Romania	812	170	740	1.90	4.60	10
Russia	696	140	1887	4.30	6.20	11
San Marino	754	161	77	0.70	2.70	3
Serbia	812	173	964	2.20	5.20	11
Slovenia	870	185	267	1.10	3.20	6
Spain	870	173	770	1.30	4.00	15
Sweden	870	179	2450	4.40	5.90	14
Switzerland	870	182	566	2.50	4.20	6
Ukraine	754	158	1931	3.80	5.90	13
United Kingdom	870	186	738	1.20	4.10	15

Note: This table summarizes voting patterns for the ESC finals from 2008 to 2023. It details each country's total and non-zero vote counts, points received, mean and non-zero mean points, and number of times in the final. Source: Flecht (2024).

A.2 Spotify Data

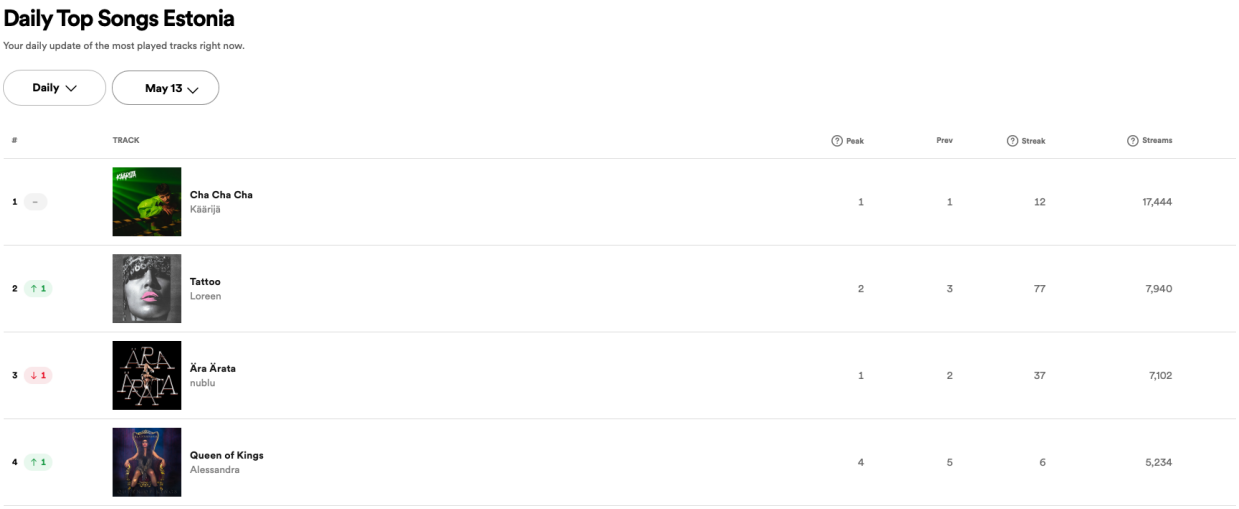

Figure 2: Spotify's Charts Data

Table 10: Number of Observations of the Spotify Charts at Country Level

Country	**Obs.**	**First Day**	**Last Day**
Sweden	2342	2017-01-01	2023-05-31
Poland	2342	2017-01-01	2023-05-31
Ukraine	1051	2020-07-15	2023-05-31
Belgium	2342	2017-01-01	2023-05-31
Norway	2342	2017-01-01	2023-05-31
Greece	2342	2017-01-01	2023-05-31
Estonia	2342	2017-01-01	2023-05-31
Latvia	2342	2017-01-01	2023-05-31
Switzerland	2342	2017-01-01	2023-05-31
Italy	2342	2017-01-01	2023-05-31
Iceland	2342	2017-01-01	2023-05-31
Czechia	2342	2017-01-01	2023-05-31
Romania	1905	2018-03-14	2023-05-31
Portugal	2342	2017-01-01	2023-05-31
United Kingdom	2342	2017-01-01	2023-05-31
Australia	2342	2017-01-01	2023-05-31
Hungary	2342	2017-01-01	2023-05-31
The Netherlands	2342	2017-01-01	2023-05-31
Bulgaria	2342	2017-01-01	2023-05-31
Austria	2342	2017-01-01	2023-05-31
Germany	2342	2017-01-01	2023-05-31
Denmark	2342	2017-01-01	2023-05-31
Finland	2342	2017-01-01	2023-05-31
France	2342	2017-01-01	2023-05-31
Spain	2342	2017-01-01	2023-05-31
Ireland	2342	2017-01-01	2023-05-31
Lithuania	2342	2017-01-01	2023-05-31
Israel	1905	2018-03-14	2023-05-31

Note: This table outlines the number of observations from the Spotify Charts at the country level. It lists each country, the count of available data files, and the first and last dates of data collection.

Table 11: International reach of Eurovision songs: number of countries featuring each country's song in their Spotify charts

Country	**Min**	**Max**	**Average**	**Country**	**Min**	**Max**	**Average**
Albania	0	3	1.33	Ireland	0	3	1.67
Armenia	0	7	2.8	Israel	1	16	7.17
Austria	0	12	3.83	Iceland	0	11	3.17
Australia	2	7	4.17	Italy	0	21	8.5
Azerbaijan	0	10	3.83	Lithuania	0	8	3.33
Belgium	1	13	5.83	Latvia	0	3	1.67
Bulgaria	1	10	4.75	Moldova	0	9	4.33
Belarus	0	2	0.67	Montenegro	0	1	0.75
Switzerland	0	11	5.33	North Macedonia	0	2	1.0
Cyprus	2	18	8.17	Malta	0	10	3.67
Czech Republic	0	14	6.67	Netherlands	2	15	5.67
Germany	0	7	2.83	Norway	4	24	10.5
Denmark	0	4	2.0	Poland	1	10	3.33
Estonia	0	5	2.17	Portugal	0	9	3.67
Spain	1	10	3.33	Romania	0	7	2.0
Finland	0	24	8.0	Serbia	0	7	2.5
France	1	10	5.67	Russia	0	10	4.0
United Kingdom	1	9	4.67	Sweden	8	27	11.83
Georgia	0	3	1.17	Slovenia	0	8	2.5
Greece	1	8	3.5	San Marino	0	7	2.17
Croatia	0	6	1.83	Ukraine	0	19	8.2
Hungary	0	4	1.67				

Notes: This table reports, for each listed country, how many other countries included that country's Eurovision song in their Spotify top 200 charts across the years considered. The columns show the minimum (Min), maximum (Max), and average (Average) number of foreign countries where the song charted over the years.

Table 12: Popularity of Eurovision songs across countries: number of songs in national Spotify charts

Country	Min	Max	Average
Austria	0	4	1.83
Belgium	1	15	7.17
Bulgaria	0	2	0.33
Czechia	0	3	1.0
Denmark	0	6	2.33
Estonia	2	21	12.33
Finland	1	33	16.0
France	0	1	0.17
Germany	0	2	0.5
Greece	2	11	6.17
Hungary	0	7	2.67
Iceland	21	39	31.83
Ireland	0	3	1.0
Israel	0	12	4.17
Italy	0	1	0.33
Latvia	0	15	6.33
Lithuania	7	36	22.0
Netherlands	2	21	7.67
Norway	4	23	13.17
Poland	0	9	2.67
Portugal	0	2	0.83
Romania	0	2	1.0
Spain	0	7	3.33
Sweden	10	23	15.83
Switzerland	0	3	1.33
Ukraine	0	5	1.67
United Kingdom	0	5	0.83

Notes: This table presents, for each country, how many Eurovision songs (regardless of origin) appeared in its Spotify Charts during the years considered. The columns show the minimum (Min), maximum (Max), and average (Average) number of Eurovision songs charting per year in each country's national Spotify rankings.
Note that some participating countries may not have official Spotify charts, in which case they do not appear in the table.

Table 13: Summary of Spotify Audio Features

Feature	Type / Range	Description
`acousticness`	float [0.0–1.0]	Confidence measure of whether the track is acoustic; 1.0 indicates high confidence.
`danceability`	float [0.0–1.0]	Describes how suitable a track is for dancing based on tempo, rhythm stability, beat strength, and overall regularity.
`energy`	float [0.0–1.0]	Perceptual measure of intensity and activity; energetic tracks feel fast, loud, and noisy.
`instrumentalness`	float [0.0–1.0]	Predicts whether a track contains no vocals; higher values indicate greater likelihood of instrumental content.
`liveness`	float [0.0–1.0]	Detects the presence of an audience in the recording; higher values indicate a higher probability of live performance.
`speechiness`	float [0.0–1.0]	Detects the presence of spoken words in a track; higher values indicate more speech-like content.
`valence`	float [0.0–1.0]	Describes the musical positiveness conveyed by a track; higher values sound more positive.
`tempo`	float [BPM]	Estimated overall tempo of a track in beats per minute.
`duration_ms`	integer [ms]	Duration of the track in milliseconds.
`key`	integer [-1–11]	The key the track is in, using standard pitch class notation. -1 indicates no key detected.
`mode`	integer [0 or 1]	Modality of the track; 0 = minor, 1 = major.
`loudness`	float [dB]	Overall loudness of a track in decibels; typically ranges between -60 and 0 dB.
`time_signature`	integer [3–7]	Estimated time signature; number of beats per bar.

Table 14: Descriptive Statistics of Eurovision Songs (2008–2023)

Variable	**Mean**	**SD**
Danceability	0.56	0.14
Energy	0.70	0.18
Key	5.40	3.58
Loudness	-5.92	2.17
Mode	0.47	0.50
Speechiness	0.06	0.05
Acousticness	0.21	0.24
Instrumentalness	0.00	0.03
Liveness	0.19	0.13
Valence	0.46	0.22
Tempo (BPM)	121.80	27.18
Time Signature	3.92	0.33
Is Explicit	0.01	0.11
Duration (m:ss)	3.23	0:14
Female Percentage	0.45	0.48
Size of Group	1.64	1.37
Number of observations: 609		

Notes: Duration is presented in minutes and seconds (m:ss). Female Percentage represents the proportion of female artists, and Size of Group indicates the average number of performers.

A.3 Polls and odds

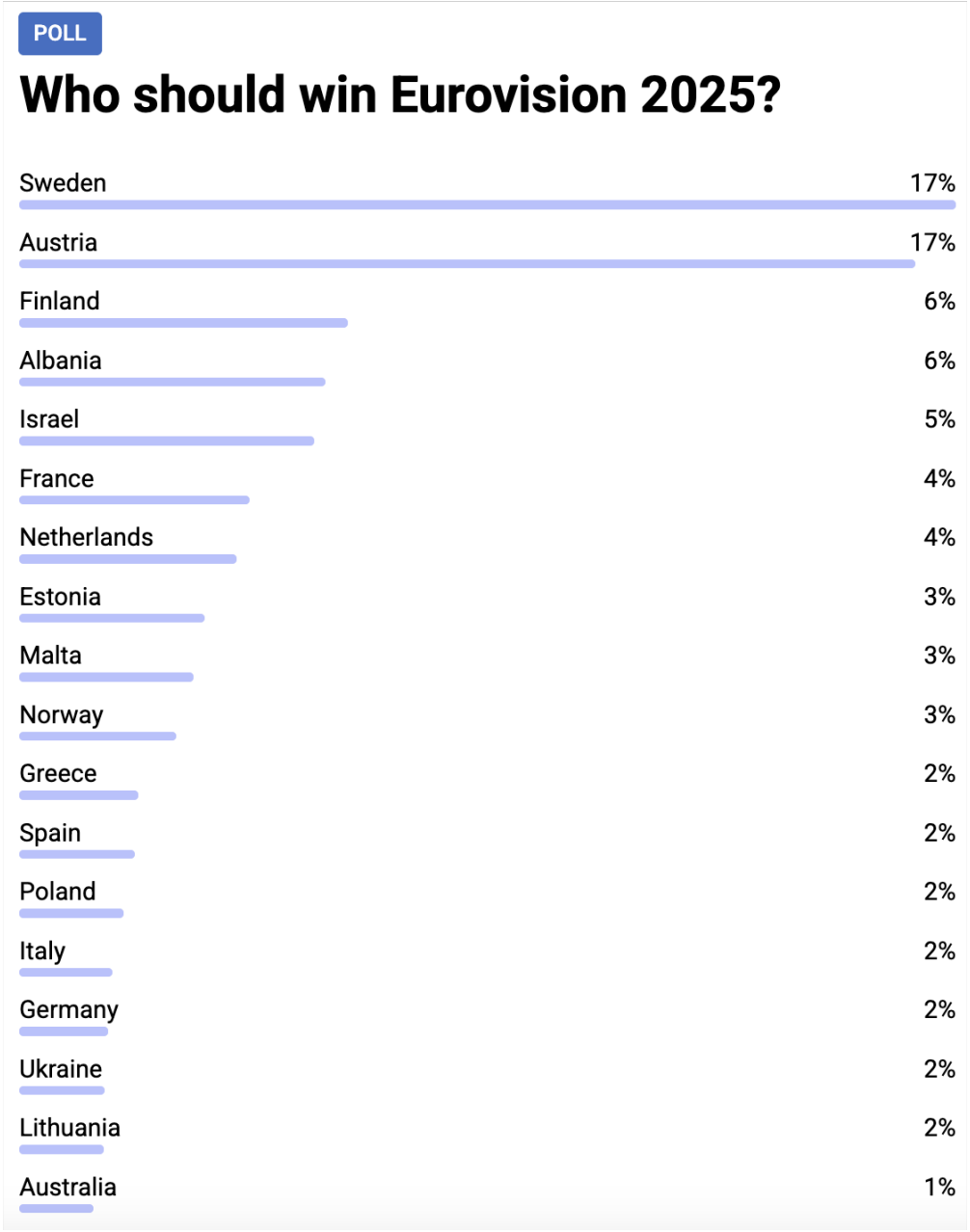

Figure 3: Poll

Who will win the Eurovision Song Contest 2025?

Bookmakers have predicted **Sweden**

		winning chance	BETSSON	888 SPORT	UNIBET	EPIC BET	BOYLE SPORTS	BET365	SKY BET	WILLIAM HILL	LAD BROKES	COOL BET	OPTIBET	BWIN	BET FRED	BETWAY	SMARKETS*	BETFAIR SPORT	BFX*	
1	**Sweden** KAJ - Bara bada bastu	37%	2	2	2	2	2.12	1.91	2	2.2	2	2	2.1	2.1	2	1.91	2	2.04	1.91	2.12
2	**Austria** JJ - Wasted Love	15%	5	5	5.25	5.4	5	5	4.33	4.5	4	5.75	4.5	4.75	5	5	5	5.1	5	5.7
3	**France** Louane - Maman	9%	7.5	8.5	10	7.5	9	7.5	7.5	8.5	8	9	9	8.5	8	8	10	10	10	
4	**Netherlands** Claude - C'est La Vie	5%	15	13	15	14	15	15	13	13	15	16	16	15	15	15	19	19	23	
5	**Israel** Yuval Raphael - New Day Will Rise	5%	17	15	15	17	15	17	11	15	13	16	13	17	17	15	19	17	20	
6	**Czechia** Adonxs - Kiss Kiss Goodbye	4%	17	21	21	19	17	21	29	21	21	21	22	19	21	17	23	23	26	
7	**Finland** Erika Vikman - Ich komme	3%	26	21	34	21	19	26	19	26	21	21	20	26	21	26	29	26	38	
8	**Belgium** Red Sebastian - Strobe Lights	3%	25	21	36	40	23	26	23	21	26	36	27	26	21	26	26	31	42	
9	**Estonia** Tommy Cash - Espresso macchiato	2%	31	26	41	29	29	36	34	26	26	26	25	26	34	34	42	41	55	
10	**Albania** Shkodra Elektronike - Zjerm	2%	51	41	81	50	17	56	41	41	34	41	37	41	34	41	55	56	80	
11	**Ukraine** Ziferblat - Bird of Pray	1%	61	51	81	60	51	61	51	51	41	41	45	51	51	41	85	67	120	
12	**Malta** Miriana Conte - Serving	1%	71	41	101	60	67	61	67	41	67	61	61	67	67	34	80	67	95	
13	**United Kingdom** Remember Monday - Wh...	1%	81	51	126	100	67	81	67	51	51	76	51	67	101	51	80	81	130	
14	**Cyprus** Theo Evan - Shh	1%	81	67	126	100	101	81	126	67	67	81	41	67	101	67	60	67	75	
15	**Italy** Lucio Corsi - Volevo essere un duro	1%	101	67	126	80	67	81	67	67	67	46	61	101	101	67	140	91	210	
16	**San Marino** Gabry Ponte - Tutta l'Italia	1%	101	51	151	150	101	101	101	51	101	101	51	101	101	51	150	101	240	
17	**Switzerland** Zoë Më - Voyage	1%	101	101	126	100	101	101	67	101	101	61	101	67	101	67	250	81	290	
18	**Greece** Klavdia - Asteromata	1%	81	81	201	150	151	101	81	81	101	51	101	67	101	81	210	91	250	
19	**Ireland** Emmy - Laika Party	1%	125	81	151	150	67	126	126	81	67	91	81	101	101	81	210	101	240	

Figure 4: Odds

B Alternative specifications

While improving the position of own country's song can be appealing to any voter, we expect that the incentive to vote strategically is stronger for countries with realistic chances of winning. Hence, we look for strategic voting while focusing on songs ranked in the top 10 in the ESC finals. The results in Table 15 show that indeed strategic behaviour is especially prevalent among voters of the countries whose song ranks in the top positions.

Table 15: Focus on top 10

	Dependent variable: delta					
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	0.157*	0.299***	0.158	0.278***	-0.383**	-0.430***
	(0.091)	(0.074)	(0.152)	(0.073)	(0.164)	(0.089)
above			-0.011	0.047	0.022	0.112
			(0.175)	(0.139)	(0.179)	(0.121)
distance	3.343***	1.956	3.756*	2.090	4.788***	3.097***
	(1.123)	(1.270)	(1.942)	(1.296)	(1.793)	(1.196)
distance:above			-0.446	-0.283	-2.463	-2.568
			(2.268)	(2.940)	(2.220)	(2.572)
past					0.396***	0.516***
					(0.043)	(0.039)
voters	Mean	Mean	Mean	Mean	Mean	Mean
Top 10	Yes	No	Yes	No	Yes	No
Observations	1179	1521	1179	1521	1179	1521
R^2	0.006	0.002	0.006	0.002	0.102	0.206
Adjusted R^2	0.005	0.001	0.004	0.000	0.099	0.204

Note: Columns (1) to (3) of Table 2, disaggregated depending on whether the voting country is in the top 10 or not. Years 2008–2023, excluding 2020. *p<0.1; **p<0.05; ***p<0.01

In Table 16, we estimate alternative specifications using external measures of distance between competing songs while specifically focusing, in terms of dependent variable, on votes exerted with relatively little background information: votes in the semi–final (columns (1) to (4)) and votes for the so–called *Big Five* (columns (5) to (8)) — that is, countries that automatically qualify for the final, without having to pass the semi–finals (where they might perform, but without competing).

The results show that the coefficient of $distance_{i,j,y}$ is generally positive, and in particular, it is positive in the three specifications where it is at least marginally statistically significant. While these results should be interpreted with caution, as they remain exploratory and may not be robust to corrections from multiple hypothesis testing, they seem to align with our main findings.

It is worth noting that at the semi–final stage, the incentive to vote strategically is limited: moving up or down the rankings generally makes no difference, as only reaching the top ten matters. Thus, the missing or

reduced evidence of strategic voting in columns (1) to (4) of Table 16 could reflect the low informativeness of external measures or simply the absence of strategic incentives.

Table 16: External *distance*s — additional specifications

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	-0.463***	-0.662***	-0.275***	-0.492***	-0.240***	0.000	-0.151**	-0.147**
	(0.156)	(0.203)	(0.093)	(0.101)	(0.091)	(0.090)	(0.060)	(0.073)
above	0.195	0.335	-0.374***	0.024	0.242	-0.229*	-0.045	-0.044
	(0.214)	(0.261)	(0.140)	(0.132)	(0.168)	(0.129)	(0.091)	(0.119)
distance	0.012	190.794	1.186	0.009***	0.105**	-51.131	5.200*	0.006
	(0.034)	(158.130)	(2.475)	(0.003)	(0.051)	(50.592)	(3.010)	(0.005)
distance:above	-0.136*	-406.481**	-6.128	-0.013**	-0.169	54.318	0.458	-0.006
	(0.071)	(196.367)	(5.636)	(0.006)	(0.115)	(104.726)	(8.618)	(0.009)
past	0.501***	0.545***	0.493***	0.481***	0.086	0.130***	0.123***	0.127***
	(0.069)	(0.071)	(0.055)	(0.055)	(0.058)	(0.048)	(0.040)	(0.039)
years	$\geq$ 2018	$\geq$ 2018	$\geq$ 2015	$\geq$ 2015	$\geq$ 2018	$\geq$ 2018	$\geq$ 2015	$\geq$ 2015
distance	Charts	Features	Bets	Poll	Charts	Features	Bets	Poll
delta	Semif.	Semif.	Semif.	Semif.	Big 5 (final)	Big 5 (final)	Big 5 (final)	Big 5 (final)
voters	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Observations	1592	1764	2880	2880	832	984	1392	1392
R^2	0.095	0.108	0.115	0.107	0.013	0.020	0.021	0.021
Adjusted R^2	0.092	0.106	0.114	0.106	0.008	0.016	0.018	0.018

Note: Main results with "distance" based on external measures: rankings in national Spotify charts from 2018 to 2023, excluding 2020. Dependent variable based on the semifinal for Columns (1)—(4) and the final for Columns (5)–(8), which are restricted to votes for the "Big Five", countries that do not participate in the semifinal. "Mean" refers to the mean if both values are available, or the available value otherwise. p<0.1; p<0.05; p<0.01

Finally, we consider a specification of the model where we combine the semifinal–based distance with external distance measures based on Spotify (as these do not appear in Table 4). The results are reported in Table 17: again, the coefficients for both internal and external measures are all positive, and in some cases, statistically significant — this is the case of columns (1) and (2), where the coefficient for the external measure is statistically significant, while it was *not* in Table 3.

Table 17: Combination of internal and external distances: charts and features

	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	-0.269***	-0.164	-0.375***	-0.314**	-0.191	-0.436**
	(0.089)	(0.118)	(0.125)	(0.134)	(0.188)	(0.178)
above	0.200**	0.115	0.286**	0.091	-0.037	0.219
	(0.084)	(0.115)	(0.116)	(0.124)	(0.173)	(0.161)
Ext. dist	0.049***	0.064***	0.034	116.242	99.684	132.801
	(0.017)	(0.021)	(0.027)	(90.712)	(132.996)	(108.382)
Int. dist.:above	-0.145***	-0.109*	-0.180***	-135.323	-13.679	-256.966
	(0.041)	(0.060)	(0.047)	(115.407)	(188.095)	(157.336)
past	0.298***	0.271***	0.325***	0.313***	0.268***	0.358***
	(0.041)	(0.054)	(0.047)	(0.039)	(0.053)	(0.045)
Int. dist.	0.753	0.689	0.817	0.973	1.294	0.652
	(0.865)	(1.249)	(1.104)	(0.774)	(1.116)	(1.125)
years	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018	$\geq$ 2018
internal d.	Semif.	Semif.	Semif.	Semif.	Semif.	Semif.
external d.	Charts	Charts	Charts	Features	Features	Features
dependent	Final	Final	Final	Final	Final	Final
voters	Mean	Jury	Telev.	Mean	Jury	Telev.
Observations	1592	1592	1592	1764	1764	1764
R^2	0.073	0.053	0.102	0.077	0.053	0.113
Adjusted R^2	0.070	0.050	0.100	0.075	0.050	0.111

C Strategy cleaning with disaggregated votes

We repeat the exercise in Section 6.3 by separately estimating strategic effects on jury or televote votes only (analogous to the distinction between columns (6) and (7) of Table 2).

For comparability, we still multiply the estimated country–specific effects for voter country i by the *overall* points that country i assigns to country j (hence including votes by the jury and the televote). Note that the two exercises differ anyway because the disaggregation between the jury and the televote is only available starting with the 2016 edition, while Figure 1 is based on the entire time interval 2018-2023.

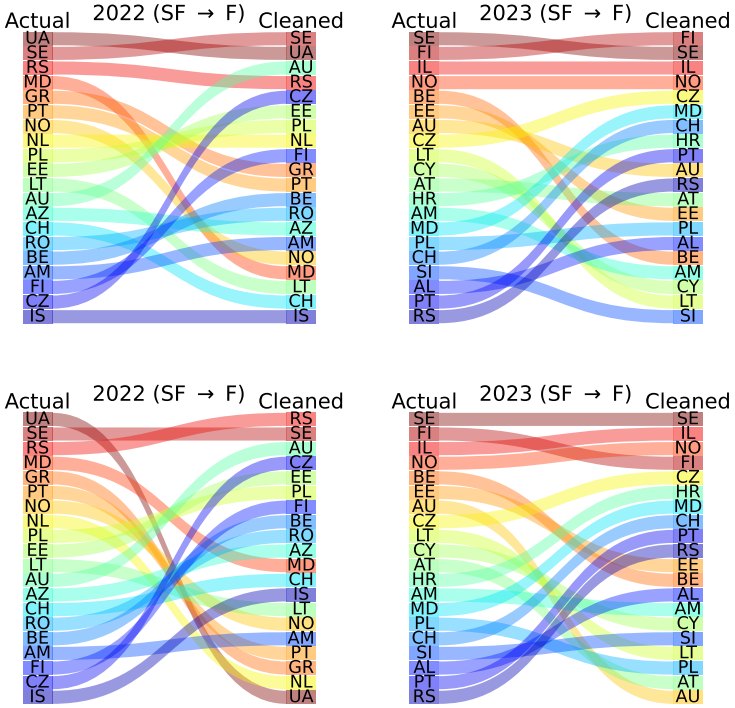

Figure 5: Analogous of Figure 1 with strategic voting estimated only from jury votes (top) or televote (bottom).