## Referendums and agendas

## The challenge of single-issue votes

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Kansanäänestykset tarjoavat demokraattisessa politiikassa vaihtoehdon edustuksellisille instituutioille. Kansanäänestysten saatetaan jopa väittää olevan erityisen demokraattisia, sillä ne yhdistävät äänestäjät suoraan poliittisiin päätöksiin välttäen edustuksellisen tason. Tästä huolimatta myös kansanäänestyksissä äänestäjien toimintamahdollisuudet ovat rajoittuneet. Vaikka he voivat vapaasti päättää, mitä vaihtoehtoa äänestävät, he eivät pysty määrittämään äänestyksen asialistaa eli tarjolla olevien vaihtoehtojen joukkoa. Sopivien sääntöjen vallitessa äänestäjät saattavat myös harjoittaa strategista äänestämistä, mikä hämärtää heidän tahtonsa ilmaisua entisestään.

Äänestyksen asialistalle voitaisiin nostaa monia erilaisia vaihtoehtoja riippuen siitä, millaisia kysymyksiä aiotaan käsitellä. Kuitenkaan ei näytä olevan mitään ilmeistä universaalia keinoa määrittää sopivaa asialistaa ilman, että valinta saattaisi olla mielivaltainen. Tarjolla olevien vaihtoehtojen valinta vaikuttaa äänestysten tuloksiin, mikä heikentää kansanäänestysten ja niissä tehtyjen poliittisten päätösten demokraattista legitimiteettiä. Tämä voi myös johtaa siihen, että tietyt äänestäjäryhmät syrjäytyvät äänestyksistä, sillä niissä ei ole tarjolla heidän suosimiaan vaihtoehtoja.

Saattaa vaikuttaa houkuttelevalta järjestää kansanäänestyksiä siten, että kukin äänestys koskee yksittäistä kysymystä. Tällaista lähestymistapaa kannattavat Hugh Ward ja Albert Weale artikkelissaan "Is rule by majorities special?", jossa he muotoilevat järjestelmän, jota he nimittävät "enemmistöjen vallaksi". He esittävät, että se mukailee tehokkaasti äänestäjien tahtoa ja sulkee pois strategisen äänestämisen. Jos tällainen järjestelmä otetaan käyttöön, se kuitenkin johtaa vakaviin ongelmiin asialistojen määrittämisessä. Vaikka jokainen yksittäinen kysymys päätettäisiin enemmistöllä, useiden kysymysten yhdistetty äänestystulos saattaa olla erittäin epäsuosittu äänestäjien keskuudessa. Kysymykset voivat liittyä toisiinsa hyvin läheisesti, ja on epäselvää, millaisia aiheita pitäisi ylipäätään kohdella yksittäisinä kysymyksinä.

Tässä pro gradu -työssä asialistan laatimiseen ja strategiseen äänestämiseen liittyviä ongelmia käsitellään analyyttisesti sosiaalisen valinnan teorian työkaluin. Sosiaalisen valinnan teoria on ala, joka tutkii yksittäisten preferenssien yhdistämistä kollektiivisiksi päätöksiksi. Työssä esitetään myös relevantteja esimerkkejä mukaan lukien sekä hypoteettisia tilanteita että todellisia kansanäänestyksiä. Jälkimmäisestä joukosta erityistä huomiota saa Yhdistyneen kuningaskunnan vetäytyminen Euroopan unionista, joka vähemmän muodollisesti tunnetaan nimellä brexit.

Asiasanat:
brexit, demokratia, julkisen valinnan teoria, kansanäänestykset, poliittinen filosofia, sosiaalisen valinnan teoria, vaalijärjestelmät, vaalit, yhteiskuntafilosofia

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Referendums are a potential alternative to representative institutions in democratic practice. In fact, referendums have been promoted as particularly democratic because they connect the electorate to policy decisions directly, avoiding the layer of representation altogether. However, even though the electorate can freely choose how to cast their votes, they cannot exert control over the agenda, more specifically the decision alternatives on the ballot. Depending on the rules in place, there may also exist opportunities for strategic voting, which further distorts the expression of the popular will.

When referendums are held, there may exist any number of potential items that could reasonably be added onto the agenda, depending on the issue at hand, but there does not appear to be any evident universal method of determining suitable agendas in a non-arbitrary way. The choice of included decision alternatives affects the ultimate outcome, undermining the democratic legitimacy of referendums and their policy decisions. This may also leave voter groups disenfranchised, as their preferred alternatives are not featured on the ballot.

It may appear tempting to hold referendums issue by issue. This approach is endorsed by Hugh Ward and Albert Weale in "Is rule by majorities special?" in which they formulate a system labeled "majorities rule." They argue that it is highly responsive to the popular will and immune to strategic voting. However, if such a system is adopted, the problems with agendas grow even greater. Even if each individual issue is decided by majority, the combined outcome on multiple issues may turn out highly unpalatable to the electorate. Real-world issues may be closely intertwined, and it is unclear which topics should be considered single issues to begin with.

In this thesis, problems related to agenda formulation and strategic voting are examined analytically with the tools of social choice theory, a field that studies the aggregation of individual preferences into collective decisions. Relevant examples are also provided, including both hypothetical scenarios and real-life referendums. Of the latter, it most prominently features the withdrawal of the United Kingdom from the European Union, less formally known as Brexit.

Keywords:
Brexit, democracy, elections, electoral systems, political philosophy, referendums, social choice theory, social philosophy

## Table of Contents

1 Introduction ..... 1
2 Social choice theory and referendums ..... 5
2.1 Examples of voting rules ..... 9
2.2 Setting agendas ..... 14
2.3 Example of the complexity of agendas: the Brexit referendum ..... 21
2.4 Single issues and package deals ..... 24
2.5 Examples of ambiguity concerning the number of issues ..... 27
3 Majorities rule and related issues ..... 30
3.1 Median rule ..... 31
3.2 Temporary coalitions ..... 32
3.3 Axioms and deriving the system ..... 34
3.3.1 Strategy-proofness ..... 38
3.3.2 Percentile methods and the contractarian argument ..... 41
3.4 Limitations imposed by strategy-proofness ..... 43
3.5 Separability and single-peakedness ..... 48
4 Further problems and complications ..... 51
4.1 Non-separable preferences and suboptimal outcomes ..... 53
4.2 Violating unanimity ..... 56
4.3 Preference intensities ..... 61
4.4 Deciding on agendas based on separability ..... 66
4.5 Uniqueness of majorities rule and the nature of democratic values ..... 69
5 Closing remarks ..... 71
References ..... 76

## 1 Introduction

Democratic forms of government have evoked a great deal of debate in political philosophy, with many different theoretical approaches and lines of argument presented. These may involve the justification of democracy, its different forms, and potential methods of implementation in political practice. Theorists have contested whether the popular will holds intrinsic value and how closely it should be followed in policy decisions. For instance, appealing to the will of the people over other considerations may be deemed problematic for violating particular normative values. Unconstrained democratic practice could be labeled populism or - at its worst - tyranny of the majority or mob rule. This has fueled arguments concerning how democracy should be conceived and how its decision-making powers should be delineated and potentially constrained.

However, in addition to these considerations, there exist other, perhaps less evident problems in democratic theory. To begin with, the will of the people that is the central instrument of democratic theory may itself be too vague and inconclusive to implement in any meaningful way. The mechanical decision-making rules applied in democratic practice, such as elections and other votes, exhibit fundamental problems that appear to undermine democratic principles.

More specifically, the choice of voting rules can dramatically affect the outcome and ultimately the decisions made. It seems difficult to determine the popular will in any unambiguous way, as different methods of aggregating votes may yield very different results and it is not at all clear which method should be chosen. In this manner, the apparent popular will depends not only on the votes cast but also on underlying institutional design. Depending on the method and prevailing circumstances, decisions determined by seemingly democratic means may even turn out highly unappealing to a vast majority of the electorate.

These issues related to voting rules are examined in social choice theory, which studies the aggregation of individual preferences into collective decisions. The field seeks to establish
mathematical results concerning the properties of different voting rules, and elections provide prominent applications for them. These results carry importance for related issues in political philosophy, such as the legitimacy and applications of democratic institutions.

Furthermore, the matter of representation warrants attention. Representative institutions such as parliaments frequently involve vote-trading and other forms of strategic activity, which may be considered undesirable. Strategic voting arguably distorts outcomes, as the expressed preferences of the voters deviate from their genuine preferences. Intuitively, it may appear more appealing to vote issue by issue without the ability to negotiate on voting activity or coordinate voting strategies. Within a broad electorate, issue-by-issue decisions could be implemented with referendums, which seem to be more resistant to strategic voting.

Referendums provide an institutional alternative to representative bodies and elections in which their members are selected into office. In a sense, referendums are more directly acquainted with the popular will, as they remove the additional filter of representation. Furthermore, strategic coordination is more difficult among the vast electorate of a referendum than the members of a representative body. These features carry intuitive appeal to some democrats and provide potential arguments in favor of adopting more referendums into political practice.

Even so, there are important considerations beyond the rules that govern the aggregation of votes. For a democratic vote to be meaningful, it must be held on a specific agenda. After all, the voters are only able to choose from the options listed on the ballot. There is no evident method to deduce how the electorate would have voted if presented with a different set of options.

Compared to difficulties in the aggregation process, agenda-related problems have received less attention, but they have not evaded scrutiny entirely. In particular, agenda-related problems are famously highlighted by William Riker in Liberalism against Populism, in which he argues that they severely undermine democratic procedures. According to Riker, all methods of social choice are vulnerable to agenda manipulation and arbitrary agenda formation, so we cannot know for
certain whether the decision outcome determined by the vote reflects the true preferences of the voters in a fair way. Thus, he argues that we should "treat all outcomes as ethically meaningless." He claims that if democracy possesses any legitimacy, it cannot be justified by adherence to the popular will. ${ }^{1}$

Among others, referendums are favored by Hugh Ward and Albert Weale. In their article "Is rule by majorities special?" they present a decision-making method labeled "majorities rule." According to this method, policies are determined by single-issue referendums. Ward and Weale argue that their system uniquely embodies democratic values and should thus be granted special standing in democratic theory. They promote single-issue referendums for their high degree of popular control and political equality, as well as their immunity to strategic voting. ${ }^{2}$ However, the system also suffers from a number of drawbacks, as Ward and Weale underplay the problems of setting the agenda, its potential manipulation, and related problems of coordination. In Social choice and democratic values, Eerik Lagerspetz examines some of these difficulties, as described further below. ${ }^{3}$ The popular will is more ambiguous and difficult to interpret than Ward and Weale's approach would at first suggest.

This thesis sets out to examine agenda-related problems in referendums and their implications for democratic theory and political philosophy. Due to the vast array of related topics and the limitations of this paper, only a cursory analysis can be provided within its confines. Particular attention is given to Ward and Weale's framework and the merits and flaws it entails. The thesis also examines practical examples of single-issue votes to demonstrate some of these features. In addition, real-world examples of referendums are presented to highlight their agenda-related problems. Most prominently, the examples feature the withdrawal of the United Kingdom from the European Union, informally known as Brexit, but other important topics are also presented.

[^0]Single-issue decisions possess intuitively appealing properties in comparison to package deals that include policy on multiple issues. It may be argued that each decision in policy should reflect the popular will on the issue in question and that issue alone. That is to say, the decision should remain independent of the decisions on other issues. However, real-world political issues are interconnected in highly complex ways, making it difficult to decouple them in an effective and non-arbitrary manner. To begin with, it remains unclear what kinds of topics should be considered single issues, and the demarcation between single and compound issues can wield influence on the outcome.

Furthermore, when decisions are made on an issue-by-issue basis, the combined outcome of the votes may turn out very unpopular. In these cases, reaching a satisfactory result would require negotiation, which is better facilitated by a representative system. It also takes into consideration the preference intensities of different factions, with each focusing on their key issues in a manner that would be impossible in the context of single-issue referendums. That said, there exist a wide range of different representative systems, including their methods of election and internal procedures. Whether they can offer a suitable alternative to referendums depends on these features, as well as external political and social factors. Of course, representative institutions do not rule out holding referendums, and the two can coexist. The presence of representation may also provide assistance with agenda formulation, though the extent of this effect varies.

In light of these complications, single-issue referendums may not be able to live up to the unique standing that Ward and Weale have proposed. The choice between democratic institutions involves trade-offs between different values that cannot all be simultaneously realized in full. As a result, majorities rule only embodies a particular subset of these values, one possible interpretation of many. Single-issue referendums may be worth implementing in some contexts but preferably alongside other political institutions.

## 2 Social choice theory and referendums

Social choice theory studies the aggregation of individual preferences into collective decisions. To carry out this purpose, the field encompasses elements from a number of disciplines, such as welfare economics and applied mathematics. Social choice theory also carries importance for philosophy, especially social and political philosophy. Notable practical applications of social choice theory include elections, referendums, and other political voting procedures, but its insights are also useful in other instances of voting or preference aggregation, including less formal contexts.

Compared to elections, referendums are held less frequently, but they are not without precedent. The Swiss political system makes extensive use of referendums. The electorate routinely votes on government proposals and popular initiatives, which then become part of ordinary legislation. Among other locations, referendums are also held in a number of states in the United States, examples of which are examined further below.

Aside from regularly held referendums, there exist special instances in which particular issues are subjected to referendums. This may occur especially in contexts of great importance, such as constitutional changes or determining membership of particular international organizations. A recent example that has received considerable attention is the referendum on the membership of the European Union held in the United Kingdom, less formally known as the Brexit referendum. Held on 23 June 2016, it resulted in a victory for leaving the union, with 51.9 in favor of leaving and 48.1 in favor of remaining within. ${ }^{4}$ To provide another example, a referendum was held in Ireland in 2018 on a constitutional amendment that banned most forms of abortion. The electorate approved of repealing the amendment and thus in favor of broader abortion rights, with $66.4 \%$ of the votes cast in favor. ${ }^{5}$

[^1]As noted, social choice theory studies the aggregation of individual preferences into collective decisions that arguably represent the will of the voters, at least in a sense. Although individual voters may disagree on their preferences, an aggregate can be constructed in accordance with suitable rules that have been set in place for this purpose. This is the case when voters elect a candidate. Even though they are not unanimous in their judgment, the voting result is interpreted so that electing the winning candidate is "the will of the voters." More accurately, the result was the will of the supporters of the winning candidate and not of the other voters. After all, it stands to reason that the supporters of other candidates presumably wished for a different result. However, the aggregation mechanism takes all votes into consideration and yields an electoral result in accordance with the rules in place, which may then be labeled "the popular will." Therefore, appealing to the popular will may be somewhat ambiguous and misleading in some contexts, but it can be a useful concept if its meaning is further clarified.

However, different methods of aggregation may yield different results, which provides an additional problem with deciphering the popular will. Consider a representative assembly that is elected under a particular set of electoral rules. Depending on the choice of rules, the composition of the assembly can vary dramatically, both because of its direct effect on the aggregation of votes and because of its effect on voting behavior. The latter refers to the influence of electoral rules on the actual votes cast, not only their aggregation. For instance, the electorate may engage in strategic voting and vote differently than their actual preferences would suggest. Similarly, the outcome of a referendum is dependent on the rules in place. As a result, the popular will appears vague and ambivalent. It is unclear which of the various possible results best reflects the collective will of the voters and which of the corresponding rules should be chosen for the task. More generally, it seems challenging to establish any method that can universally determine the best rule in any non-arbitrary manner. This raises further questions about the nature of the collective will and whether it exists in any genuine form.

It is worth noting that the contents of decision alternatives, such as policy positions, are typically not the focus of social choice theory, even though they may be highly interesting for broader political philosophy and practical political discourse. Social choice theory on its own takes no stance on the normative merits of the chosen outcomes, and those merits have to be evaluated separately.

Furthermore, while the contents of the alternatives on the ballot may have great effect on voting decisions, they often exert little influence on electoral methods themselves, at least directly. That said, some outcomes have effect on the rules of subsequent elections or votes, either for the same political institution or another. For instance, this is the case in some parliamentary votes on their own procedures or broader electoral rules. More dramatically, institutional changes may take place in referendums on constitutional change or membership of particular international treaties or organizations. The result of the Brexit vote also has notable electoral effects. By the time of writing this thesis, the withdrawal of the United Kingdom is not yet complete, but if it proceeds as planned, the state will no longer take part in elections for the European Parliament. In January 2019, Prime Minister Theresa May's withdrawal agreement was rejected in the House of Commons by a majority of 230 , and the future of the withdrawal process remains uncertain. ${ }^{6}$

In the study of electoral results, it is deceptively easy to assume that the voting decisions of the electorate depend on the agenda in a direct and transparent way. However, this is not always the case. The voters might cast their votes for a number of other reasons, even if these reasons are not evident by examining the agenda alone nor intended by the authors of the vote. The voters may consider it a vote of non-confidence against particular politicians or a broader protest against various existing or perceived entities, even though the items on the agenda do not directly involve them. This form of activity can take place in referendums and general elections alike. Whether the vote manages to convey the intended message of the electorate depends on the circumstances. In the presence of a large number of voter groups with highly different motives, deciphering the intended

[^2]meaning behind a vote may be highly challenging, which also makes it all the more difficult for the vote to achieve the desired result.

Consider again the Brexit referendum. Let us say a person votes in favor of leaving the European Union not to answer the question on the ballot but because he disapproves of David Cameron, the Prime Minister of the United Kingdom at the time of the vote. Cameron has called the referendum, setting the process into motion, and campaigns in favor of remaining. This hypothetical voter is casting his vote in favor of leaving because it goes against Cameron's stance and he believes that doing so is a form of protest against Cameron in particular. In this manner, the voter casts his vote regardless of what he thinks about the policy substance of the decision alternatives on the referendum ballot. In fact, he may not have any clear preference on the subject. After losing the referendum vote, David Cameron did resign from his position, so in that sense the hypothetical voter was successful, but this was not the intended purpose of the referendum. ${ }^{7}$

However, the result of the vote yielded many other consequences, greater in scale than the resignation of a prime minister. While the hypothetical voter did not consider these consequences in his decision, he may become interested in them at a later time when they become apparent. Furthermore, the resignation of a prime minister is somewhat predictable, but other goals may be harder to realize if they are even less closely related to the topic of the referendum. For instance, even if a group of voters protest against particular policies of the government, it is highly uncertain whether this protest will be accurately interpreted and whether there will be a change in policy in the desired direction. Their voting decision may even be detrimental to their goals. After all, leaving the European Union carries consequences for various policies.

That aside, voting activity of this kind brings about another problem, as it makes the voting result more difficult to interpret. It weakens the accuracy of referendums as indicators of the popular will concerning their actual questions on the ballot. In the case of the Brexit vote, this question was whether to leave the European Union. If different groups of voters cast their votes

[^3]with highly different motives, some of which are not directly linked to the question on the ballot, there does not appear to be any direct method to determine how many of the votes were motivated by a particular purpose. After all, the ballot papers only contain expressed preferences on their intended topic. In fact, some voters may not have any well-defined motives for their decision, which further weakens the informative value of referendums. Additional information can be gathered by polling and surveys, and it may be prudent to do so, but such efforts go beyond the results of the vote itself.

### 2.1 Examples of voting rules

Elections, referendums, and other votes can be held with a great number of different rulesets, and the choice of suitable rules varies based on the nature of the vote and other circumstances. While the number of potential voting rules is vast, only a limited subset of them is used in actual political practice, and of these rules some are much more prominent than others. Predictably, rules in frequent use are afforded more attention in this thesis, with a focus on referendums but also involving elections and other votes when appropriate. That said, the fact that a rule is commonly applied in votes does not guarantee that it functions well in this role. It turns out that some popular rules carry undesirable properties, and applying them in votes may result in unsavory outcomes.

The paradigmatic example of a referendum is dichotomous, with only two decision alternatives on the ballot. The winner is usually determined by simple majority, which will always exist in the presence of only two alternatives, excluding ties. That said, it is also possible to establish supermajority rules, in which case a decision alternative only passes when the number of votes in favor exceeds a higher threshold, for instance two thirds of all valid votes. Such a rule favors the default alternative that asserts itself if no alternative is approved. Typically, this alternative is the status quo, which then remains in place.

However, for holding a referendum, an agenda with only two decision alternatives is not an inherent necessity, as it is feasible to organize referendums with a greater number of options. This may be entirely reasonable, given that many issues cannot be reduced to two alternatives in a fair or meaningful way. The items on agendas may involve matters of a more nuanced scale, multiple dimensions, or alternatives that cannot easily be ordered.

The presence of more than two alternatives comes at a price, as the vote may not yield a majority winner at all. That is to say, it is possible that none of the alternatives receives over half of the votes cast, which makes the popular will all the more ambiguous, as we can no longer rely on decisions by majority. As alluded to above, to reach a conclusion, the collective decision then needs to be determined in accordance with other criteria, and there exist a number of competing approaches for the task. Some voting rules only consider the first preference of each voter, while others also involve lower preferences. Furthermore, the voting may take place during a single round or several. Based on their properties, individual rules can be grouped in various ways, and systematic examination of all possible rules would be a vast undertaking.

There are many possible theoretical approaches for drafting fair voting rules, among which are the plurality, Condorcet, and Borda methods. Each of these three criteria holds several strengths and weaknesses, which are very briefly examined below. Voting rules in actual use vary in how closely they adhere to these methods, which can in turn be utilized to evaluate the properties of the rules in question. Furthermore, the methods can be combined in various ways to establish more complex criteria and determine corresponding rules.

The plurality rule chooses the alternative that has received the greatest number of votes, only taking the first preference of each voter into account. Also known as first-past-the-post, the plurality rule is in electoral use in a number of countries, especially in former British colonies, including the United States and Canada, as well as in the United Kingdom itself. The rule is highly vulnerable to strategic voting, which favors the largest parties and may easily lead to a two-party system. The
plurality rule is also prone to the manipulation of electoral districts, which may result in a party with fewer votes winning more seats. These problems discussed below in the context of strategic voting.

Meanwhile, the Condorcet method chooses a decision alternative if and only if it emerges as the winner in all pairwise comparisons, that is, enjoys majority support in all two-alternative votes, competing against every other alternative in turn. Appropriately, this winning alternative is called the Condorcet winner. A possible interpretation of this is a compromise that takes all matchups between the decision alternatives into consideration. The winning alternative need not be the most popular in terms of first-place preferences. In fact, a decision alternative may become the Condorcet winner without being ranked first by any voter. However, in the presence of cyclical preferences, a Condorcet winner might not exist. Consider a vote with three decision alternatives, of which the first defeats the second, the second the third, and the third the first. In this case, none of the presented alternatives can defeat every other, so there is no Condorcet winner.

When applying the Borda count, the voters rank each decision alternative in their order of preference, and each receives points equal to the number of lower-ranked entries on the ballot. For instance, with five alternatives on the ballot, the most preferred option receives four points from the voter, the next entry three, and so on, until the least preferred is not entitled to any points at all. Finally, the points allocated by the voters are added together, and the alternative with the highest total score is declared the winner. Much like with the Condorcet method, the winning alternative need not be ranked first by any voter.

These complexities can be avoided by reducing the number of alternatives on the ballot to two, but there may not be any fair and non-arbitrary method of doing so. Of course, this depends on the issue at hand. Some issues can be more intuitively reconciled with a dichotomous choice, while for others such an easy avenue does not exist. Efforts at simplification run the risk of distorting the wishes of the electorate, introducing strategic activity, and exacerbating problems of coordination between voter groups. Such an operation may end up disguising underlying divisions, which does
little to bridge the fault lines between factions. In the presence of a large number of voter groups with different preferences on a multitude of dimensions, there is no obvious method of systematically reconciling their differences into two neatly delineated groups. This will also be discussed further below in the context of Ward and Weale's majorities rule.

Elections and referendums can also be held in the form of multiple rounds, which may include runoff elections between the best-ranked alternatives. There exist many variants of runoffs, depending on the number of rounds held, the number of alternatives eliminated on each round, and the voting rules applied on each round. To provide an example, let us examine a simple variant that involves a two-round system. First, all but the two alternatives with the most votes are eliminated, and these two face each other in the runoff, decided by majority. Voting rules that involve multiple rounds can also take lower preferences into consideration to an extent. If the supporters of eliminated alternatives wish to vote on subsequent rounds, they must choose among the remaining options, applying their lower preferences.

The voters can also express their lower preferences during a single round of voting. In this case, they rank the alternatives on the ballot in some manner, whether this applies to all the alternatives or only some of them. The Borda method described above belongs to this group of voting rules.

Another example is the alternative vote, which may also be called instant runoff voting. When applying this rule, voters rank all the decision alternatives in their order of preference. On each round, the alternative with the fewest votes is eliminated and its share of votes is allocated to the remaining alternatives in accordance with the next-highest preferences of the voters. For instance, on the first round, the alternative with the fewest first-place preferences is eliminated and its share in votes is transferred to the alternatives indicated by the second-place preferences of its supporters. This is repeated until one of the alternatives wins majority support. In essence, the alternative vote simulates a runoff system without actually holding separate votes on future rounds.

Similar voting rules may involve only expressing a few of the topmost preferences or eliminating more alternatives on each round.

When electing a representative assembly, another potential approach emerges in the form of proportional representation, which aims to allocate seats to parties or similar electoral groups approximately in proportion to the number of votes they have received. The election is carried out in multi-member constituencies, within which the proportionality is intended to apply. There is a lesson to be learned here. Ultimately, decisions in the representative assembly should still result in choosing single alternatives, likely by majority rule, but this does not imply that the electoral phase should conform to this rule. Electoral rules need not be constructed with a winner-takes-all approach.

Proportional representation is constituted by a loose family of electoral rules, with dramatically different properties. Indeed, even if elections are held with the intent of achieving proportional representation, it may yield a variety of results, depending on the rules in place. The outcome may significantly diverge from a proportional allocation of seats, as the accuracy of proportionality hinges on the exact electoral method used and the distribution of votes cast in the election. The presence of formal electoral thresholds and bonus seats is particularly prone to causing disproportionality. To provide an example of proportional representation, consider the d'Hondt method, which is briefly examined in the context of strategic voting.

In contrast, non-proportional voting rules that loosely resemble the plurality rule are occasionally called majoritarian. They typically operate in single-member constituencies and only yield representation for the winner in each constituency. Of the rules discussed above, the plurality rule, the alternative vote, and the plurality runoff qualify as majoritarian, and the group includes many others. However, despite their name, there is no guarantee that a proportional system will yield more proportional outcomes than a majoritarian alternative. This depends greatly on the detailed properties of the rules and existing voting patterns.

To complicate the situation further, majoritarian and proportional systems can be mixed in electoral use. For instance, a predetermined portion of the seats can be allocated by majoritarian rules and another portion by proportional rules. Alternatively, disproportionate seat allocation by majoritarian rules can be compensated by seat transfers that improve the proportionality of the outcome. Given that there exist a great number of majoritarian and proportional rules to begin with, mixed systems may feature even more variants and additional complexity.

Social choice theory has traditionally been interested in rules that determine a single winner - the collective or aggregate decision - but this does not apply to proportional representation, which elects multiple candidates. Therefore, proportional rules are not valid objects of study for social choice, at least if the field is conceived in such a way that it is only interested in single-winner rules. However, if the field is conceived more broadly, proportional rules may also fall within the umbrella of social choice theory.

For evident reasons, proportional representation is not well-suited for referendums as they are usually conceived. In referendums, the layer of representation is avoided altogether and a decision is reached directly by the electorate, which rules out the proportional approach. Keeping this in mind, proportional representation provides us with another alternative to single-issue referendums. As briefly examined below, suitable models of proportional representation can promote negotiated compromises while avoiding the worst excesses of strategic voting.

### 2.2 Setting agendas

In order to hold any meaningful vote, it is necessary to set an agenda, but its formulation may be a contested topic. For many issues, it is not at all obvious how a suitable agenda should be determined. In fact, there may exist quite a few potential alternative agendas for the same issue - or perhaps for items that appear to constitute a single issue. Agendas can be influenced by removing
potential options from them, adding new entries, or altering the order of vote, all of which can take place inadvertently or by outright manipulation.

Let us first examine removing items from the agenda, which can have great effect on voting behavior and the ensuing outcome, as the electorate may become unable to choose the decision alternative that it prefers. In 1999, a referendum was held in Australia on the country's constitutional status. The alternatives on the ballot were remaining as a monarchy and changing the form of government into a republic with a president, who would be indirectly elected by the parliament. The option of monarchy won the majority vote and defeated the option of an indirectly elected president, but polls conducted on the subject indicate that the voters in fact favored a republic with a directly elected president, which was absent from the ballot. In essence, monarchy did not genuinely command majority support compared to the republican form of government. It is simply that there exist different forms of republican government, and they did not enjoy equal popularity. Clearly, the downfall of the republican campaigners was caused in part by the choice of the agenda. ${ }^{8}$

Incidentally, calls for a new referendum on the subject have recently resurfaced. The opposition Labor Party has pledged that if they are elected to government at the 2019 federal election, they will legislate for a plebiscite on this issue. Voters would be presented with the question "Do you support an Australian republic with an Australian head of state?" with the options "yes" and "no" on the ballot. If the republican side prevails, the choice of method for electing the head of a state will be inquired in a separate plebiscite. ${ }^{9}$ Presumably, this may facilitate republican efforts to unite in the first vote.

Other methods of influencing the agenda can also have dramatic effects. For instance, if an election is held under the plurality rule, adding a new candidate can split the vote and help another candidate to victory. More specifically, when two candidates are very similar in terms of policy positions or other qualities, they appeal to the same groups of voters, thus potentially splitting the

[^4]vote that could have been concentrated in the hands of one of them. As a result, a smaller bloc of voters can manage to get their candidate elected by concentrating their votes. Keeping this in mind, the supporters of the two similar candidates might agree to join forces and support a single candidate for strategic reasons. Incidentally, this effect is why the plurality rule favors a two-party system, as it discourages "wasting" votes on third-party candidates. A similar effect could take place in a referendum determined by plurality, with more alternatives than two on the ballot.

The importance of voting order becomes apparent in the presence of multiple successive votes, as is demonstrated in the examples presented in the context of Ward and Weale's majorities rule. In essence, the outcome of the first vote provides the electorate with additional information that affects their voting behavior on subsequent issues. Effects of this kind occur if the issues are suitably interconnected. Then the preferred decision on an issue depends on the outcome on another.

As noted, Riker argues that agenda manipulation and arbitrary agenda formation severely distort the true preferences of the voters. In fact, he delivers an even stronger assertion. According to him, we should deem all voting outcomes ethically meaningless. ${ }^{10}$ More formally, Riker's argument proceeds as follows. The outline below has been adapted from Lagerspetz's interpretation in Social choice and democratic values:
(1) Decisions can only be made from a pre-given agenda with a finite set of options in a pre-determined order.
(2) All voting methods can be manipulated or otherwise influenced by changing the agenda.
(3) We can never know with certainty what the true values of the voters are.
(4) We can never know with certainty how they would have voted if presented with a different agenda.
(5) We can never know with certainty whether an outcome resulted from manipulation.

[^5](6) An outcome resulting from manipulation is ethically meaningless because it is not a result of fair decision-making methods. That is to say, the outcome is not a fair amalgamation of the true preferences of the voters.
(7) We have to treat all voting outcomes as ethically meaningless. ${ }^{11}$

As the voters must choose from the options on the ballot, their expressed preferences are only capable of ranking the options available. Given a different set of decision alternatives, they might choose differently, and thus the outcome of the vote hinges on the choice of the agenda. The agenda might be manipulated on purpose, or it might end up determined by arbitrary processes.

Consider a political system with various political parties. If the selection of available parties and their candidates and policy positions was different, election results and the composition of the elected parliament would differ as well. Consequently, the parliament would also legislate differently. Furthermore, when it comes to the popularity of political parties, there is a degree of path-dependency. The establishment and growth of new parties is contingent on the existing political environment, including the identities of historically dominant parties. It is difficult to judge what kinds of results would take place if the political landscape had been entirely different, so historical coincidence may play a great role in agenda formulation.

Depending on the issue at hand, there may exist a very large number of potential alternatives, and even the voters themselves might not be able to predict how they would vote when confronted with every counterfactual agenda. Furthermore, even if all the options were included on the ballot, people might find it difficult to cast their votes with reasonable accuracy. The cognitive abilities of humans are limited, so we cannot reasonably compare or rank arbitrarily large sets of options or even accurately envision them. The extent of this in particular circumstances is an empirical matter.

Riker asserts that we cannot know precisely when and how agenda manipulation occurs and

[^6]whether it succeeds, which makes all voting results unreliable. This is a central part of his argument in favor of considering all voting outcomes ethically meaningless. ${ }^{12}$ It can definitely be difficult to determine whether an agenda has been manipulated, and this undermines the reliability of the outcome. That said, it may be possible to discern some hints of manipulation by learning of the actions and motives of the agenda-setters. It may also be possible to poll the electorate on various agendas and learn of their preference patterns, even if this cannot be done for all possible agendas. For sure, we cannot detect manipulation with full certainty, but even the ability to obtain some knowledge of it may be helpful for our understanding of electoral results. It is not as though we must either fully trust voting results or not trust them at all.

Therefore, even if our knowledge of manipulation cannot fully meet Riker's stringent criteria, we may be able to trust voting results to a lesser extent. It seems reasonable to adopt a more moderate stance and only assert that deciphering the will of the electorate is a difficult task but possible to a limited extent. That said, even if we adopt a weaker version of Riker's argument, agenda-related issues still remain a serious concern.

As noted above, the preferences of the electorate can be further studied by conducting polls and surveys. However, they also suffer from similar agenda problems because they can only feature particular agendas, these agendas must be finite, and only a limited number of them can be conducted in general. It is also worth noting that if elections and referendums were entirely replaced by polls, it might affect people's behavior. If the voters know that they will have the opportunity to vote in an election, it may create incentives for their deliberations of political matters. The extent of these effects is an empirical matter.

Also, even in the absence of conscious manipulation, it seems that accidental instances of arbitrary agenda formulation are difficult to avoid. Votes are always held on some agendas, and it is easy to imagine alternative agendas that would yield different outcomes. It is unclear what kinds of methods - if any - could formulate agendas in a non-arbitrary way. For some issues, it may be

[^7]argued that a suitable agenda can intuitively be found, but even if this turns out true, it will not resolve the problem for all issues. To begin with, it is difficult to imagine a political system that would avoid Riker's agenda problem entirely, as the starting point of the debate would have to be free of any agenda. Such a framework would have to be highly unstructured by its nature, implying that it is unlike any political system that can reasonably be conceived. As Lagerspetz notes, it would appear apolitical, void of genuine political activity. ${ }^{13}$

In his efforts to establish that voting results are meaningless, Riker also presents similar arguments on the basis of strategic voting and cycles. Strategic voting distorts the expression of true preferences because some factions of the electorate are casting their votes strategically rather than in accordance with their true preferences. Meanwhile, voting cycles lead to inconclusive outcomes, as some of the decision alternatives defeat each other in a circular fashion. Because of these reasons, Riker argues that we should consider voting results ethically meaningless, much like in his argument on agenda formulation. ${ }^{14}$ Riker's arguments are separate and do not rely on each other, but they share a degree of similarity in their reasoning and work towards the same conclusion. Much like in the case of agendas, a counterargument can be formulated by appealing to the usefulness of limited knowledge. Even if it is difficult to conclusively determine what the popular will would entail in the absence of strategic voting or voting cycles, the results of the vote may nonetheless contain a measure of helpful information. Lagerspetz also adopts this line of argument against Riker's position. ${ }^{15}$

Riker's agenda-related argument is somewhat different than its counterparts in the sense that it is comparing counterfactual circumstances without a clear ideal comparison point. ${ }^{16}$ In the case of strategic voting, underlying true preferences may exist in a relatively simple form, even if deciphering them in practice may be difficult. With cycles, the preferences are simply aligned in an

[^8]inconvenient manner. However, it is not clear whether there exists any ideal non-arbitrary agenda to begin with.

Riker also argues that there is no fairest voting rule for social choice. Different voting methods result in different outcomes, and they embody different principles of fairness, but none of them can embody all. He believes that the principles are equally important, so there is no fairest - or ethically superior - method and thus different voting outcomes can be equally legitimate. Furthermore, we cannot even determine for certain what the outcomes would have been if the votes had been held in accordance with different rules. ${ }^{17}$ This results in a situation in which different election results appear easy to consciously manipulate by choosing suitable rules. We could solve this problem by determining the best combination of principles of fairness that can be a realized by a voting rule and by then simply implementing the rule in question. Whether this can be realized in practice is a different matter. At the very least, it can be questioned whether all voting rules are equally fair. Even if an optimal voting rule cannot be determined, we may be able to ascertain that some are better than others and choose rules accordingly.

With the arguments presented above, Riker further argues against what he calls the populist conception of democracy, that is, the belief that the value of a policy lies in its popular support. Instead, he favors what he labels the liberal conception, which is the belief that the democratic process is an instrument for the achievement of liberal policies, most centrally upholding individual liberties. Riker claims that the popular conception should be dismissed because there is no sure method of determining the popular will, based on his other arguments. ${ }^{18}$ However, if we accept Riker's claim that democratic procedures are very vulnerable to manipulation and arbitrary processes, Lagerspetz argues that democracy is an unreliable method of achieving liberal policy goals. ${ }^{19}$ This does not imply that liberal values are less valuable than Riker claims, but it presents

[^9]great practical difficulties for his aims. It is conceivable that democratic procedures can be used as instruments to deliver liberal policy goals if we can predict their outcomes at least to a reasonable degree. This by itself does not necessitate legitimacy, but any manipulation or arbitrary process involved must be sufficiently orderly, which is troublesome for Riker's position.

### 2.3 Example of the complexity of agendas: the Brexit referendum

On close examination, seemingly simple agendas can turn out surprisingly complex. As a famous and somewhat dramatic example, consider the Brexit referendum. At a glance, the vote would appear to be a simple dichotomous choice between leaving the European Union and remaining within, as the two options on the ballot paper suggest. However, the union is a complex web of institutions, treaties, and programs covering a wide range of areas. Leaving could be conceived in a number of ways, depending on which layers of integration the leaving state is willing to accept.

For instance, the United Kingdom could agree on a customs union with the European Union like Turkey or negotiate membership of the European single market. For the sake of comparison, Norway has membership of the single market by virtue of the European Economic Area, with some exceptions. Aside from these options, trading terms could be determined by a conventional free trade agreement, with many different potential formulations, or by defaulting to World Trade Organization rules. When it comes to related policies such as the free movement of labor and contributions to the budget of the European Union, the number of interconnected issues rises further. This can be expanded by considering individual regulations and whether to diverge from common standards on them, and thus there are an even more issues on which the electorate may be in disagreement. The legal and technical details of these options are not the focus of this thesis, so detailed analysis of these alternatives is omitted.

What is essential here is the presence of multiple options for establishing future relations.

The coalition in favor of leaving may have been composed of different groupings, with their own visions of a post-Brexit future. Their goals may in part be mutually exclusive and thus cannot all be simultaneously realized, so the process of leaving may involve trade-offs between them. However, the referendum result gave no direct evidence on the relative popularity of these positions, as they were not included on the ballot. It is possible to rely on other methods such as polling for additional information, but - as noted - this ventures beyond the vote itself.

It is also highly challenging to set the various policy positions on a single scale. Even if one attempted to sort out the viewpoints in favor of close integration from those proposing a more detached relationship, there exist many dimensions to integration. Of course, it may be argued that the policy on each of these dimensions should be determined separately in the form of single-issue democracy, which is precisely what Ward and Weale are suggesting, but this approach is burdened with difficulties of its own, as demonstrated further below.

That said, even if voters in the Brexit referendum had been allowed to pick and choose only the aspects of European Union membership that they liked and reject the rest, this does not guarantee that the result would have been possible to implement in reality. The implementation of any expression of the popular will is of course constrained by external factors. Any outcome that involves external parties is subject to negotiation with them, in this case the institutions of the union and the remaining member states. When engaging in a negotiation, the other parties might not approve of picking favorable elements while discarding unfavorable items.

Incidentally, it is interesting to consider the matter of a hypothetical referendum on the outcome of the Brexit withdrawal negotiations. In fact, there have been calls for a new referendum. Notably, a campaign called People's Vote has been launched for this purpose, and they wish to include the option of remaining in the European Union. ${ }^{20}$ While at first glance it might seem like a simple rerun of the Brexit referendum, the new vote may differ from the original in a number of ways. The ballot may feature different options, and the electorate has also obtained new information

[^10]since the referendum in 2016. Regardless of whether a new referendum will take place, the formulation of the agenda is worthy of interest.

Some of the proponents of a referendum have indeed contemplated potential formulations of the agenda. Given the nature of the situation, it is possible to establish agendas with more than two options, and consequently it may be the case that none of them commands a majority. As always in such situations, several potential solutions emerge, among them the possibility of establishing a two-stage vote. If this approach is adopted, there exist many different rules that can be applied, and this choice may influence the result of the vote.

Justine Greening, a Member of Parliament for the Conservative Party and a supporter of the People's Vote campaign, has suggested a vote with three options on the ballot. The first option would be accepting the negotiated withdrawal deal. The second option would be leaving without a deal - "crashing out" of the union, with all that it entails. The third option would be remaining within the European Union. The vote would be decided in a single round by single transferable vote, which in the case of a single winner is identical to the alternative vote. ${ }^{21}$ However, this approach carries problems in terms of social choice. The option that is eliminated on the first round may actually be a popular compromise that cannot be chosen on the second round. This may also invite strategic voting to ensure a suitable opponent for the runoff. Of course, this is hardly surprising, given that these are frequent problems with runoff votes in general.

Vernon Bogdanor, a professor of government, has instead suggested two consecutive referendums. The first would inquire whether Britain should leave or remain - somewhat of a rerun of the original referendum. If "leave" won, another referendum would be held on the terms of departure between the withdrawal deal and a no-deal exit. ${ }^{22}$ This approach may also be problematic for some voters, such as those who prefer both remaining and the negotiated deal to no deal. In a similar manner, it is also troublesome for voters who prefer both remaining and no deal to the

[^11]negotiated deal. After all, remaining is no longer an option on the second round. Predictably, strategic activity is present with this method as well, as there is an incentive to vote for remaining to avoid a particularly unpalatable form of leaving.

It is worth noting that even three options cannot properly represent the complexity of the withdrawal process and future relations. If we wished to determine the popular will on related policy details by holding referendums, a great number of them would be required. That said, three options provide more variety than only two, so it would be an improvement regardless.

### 2.4 Single issues and package deals

Broadly speaking, votes may be held on single issues or on package deals that consist of multiple issues. In the latter case, a particular policy position is assigned to each issue in the package, and these positions come as a set. Then the voters may only approve or reject the package in its entirety, not policies on single issues. The single-issue approach appeals to some intuitions concerning democratic processes, according to which each issue should be decided on its own merits, without the interference of preferences on other issues. This is closely related to the separability of preferences, which is discussed at length below, along with related examples.

Furthermore, policy packages pave the way for vote-trading when their contents are formulated. The participants wish to include their foremost interests in the package in exchange for their votes on other included issues, as is commonplace in parliamentary negotiations, for instance. In this manner, the participants devise a voting strategy that allows them to further their interests. Package deals and vote-trading may come across as distasteful or morally dubious. According to this view, the popular will should not be overcome by strategic maneuvering or opaque backroom deals. This line of thought may result in favoring single-issue votes, carried out without negotiation. To keep the issues separate, the absence of negotiation is crucial. After all, if the voters hold
extensive negotiations, they may agree on their voting plans to such an extent that they end up voting on the issues as though they were part of a formal package.

However, on closer examination, it turns out that single-issue voting is burdened with difficulties of its own, as the combined outcome may be unpalatable to most of the electorate. Furthermore, the act of setting an agenda provides opportunities for strategic activity, even in the context of single-issue votes. The combined outcome of the votes depends on their order, the rules of vote aggregation, the decision alternatives available, and the formulation of the issues on the agenda. If the issues are complex and intertwined, deciding on a single-issue basis becomes challenging and may result in especially unfavorable outcomes, which is demonstrated by the examples presented below. In situations like these, vote-trading and packaging of policies provide means for alleviating this problem.

In addition, it may be highly contested whether the items on the ballot are single issues to begin with. What at first glance appears to be a single issue may arguably be a package deal in disguise. Depending on what is considered a single issue, the same item on the agenda could be classified as either a single issue or a package that includes several of them. For instance, a construction project likely involves decisions related to its design, finer structure, location, and budget. This project could be interpreted as a single issue or a set of multiple issues, and the choice carries consequences if the votes are held on individual issues.

As noted above, when a package deal is subjected to a dichotomous referendum, the electorate either approves or rejects the full set of issues. It may be that the voters only support some of the included provisions while disliking others, but their preferences cannot be deduced from the referendum result alone, as the necessary information is not visible on the filled ballots. The result is only expressed in terms of approval or disapproval overall and the number of votes for each option. Because of the nature of packages, it is possible to pass unpopular measures by packaging them with popular items. The electorate may be willing to ignore unfavorable policies as
long as their foremost interests are approved.
In Democracy and Democratic justice and the social contract, Weale mounts an argument against what he calls synoptic rationality, that is, the capability to properly evaluate all existing policy combinations. He asserts that due to cognitive, ideological, and institutional pressures, people do not possess this ability beyond very simple contexts. More specifically, he lays some of the institutional blame on political parties that reduce dimensions of political competition. According to Weale, people are not capable of choosing between integrated political programs, which are policy packages by their nature. Instead, he asserts that the best approximation of the popular will is adherence to issue-by-issue medians, precisely what he has suggested in his account of majorities rule. ${ }^{23}$

It may be that people do not possess complete information concerning all combinations of alternatives, but there are times when we do have that knowledge to a sufficient extent, even if in a limited form. ${ }^{24}$ Trying to reduce political complexities into single issues may itself be an arduous task. Given the rich variety of political and social activity, there exist a large number of relevant items that could potentially be included in agendas. Weale has hoped to avoid complex votes by committing to single-issue votes, each on a single scale, but the choice between different formulations of agendas may also represent a high level of complexity. When sufficient information is available, it may be cognitively less challenging to make use of it in the choice between complex packages than to attempt to reduce the agenda into single issues like Weale is suggesting.

In referendums, problems with the agenda will likely turn out more pronounced than in a legislative body. It is difficult for a vast electorate to conduct a well-structured debate on the formulation of agendas because the problems of coordination grow more severe as the number of participants increases. Other things being equal, this debate can more easily be conducted by a smaller group of parliamentary representatives. Indeed, even if one is committed to holding

[^12]referendums, representative institutions can be used for the purpose of formulating agendas for them, as may be the case for real-world referendums as well. Of course, while representation may alleviate agenda-related problems to an extent, it does not conclusively solve them. A smaller group of people may still disagree with each other on agenda formulation, without any evident universal method to resolve the situation in a fair way.

### 2.5 Examples of ambiguity concerning the number of issues

As noted, it may be highly controversial whether items on an agenda are single issues at all. Arguably, many seemingly single issues are actually combinations of multiple issues, possibly highly complex. Because of differences in how relevant votes are held, the status of single issues may have a great effect on decision outcomes. People involved in the agenda-drafting process may also have incentives for packaging particular issues together and separating others, depending on the likely voting outcomes. To demonstrate the ambiguous nature of single issues, a few examples are presented directly below.

First, consider again the Brexit vote. At a glance, it may appear that membership of the European Union is a single issue, but in reality the union embodies a high level of complexity. Therefore, the voters were arguably offered a choice between highly complex package deals. Furthermore, the unraveling of membership and establishing future relations can be conducted in a number of ways, and consequently the option of leaving could be implemented with many alternative deals. A lack of clarity at the stage of agenda formulation invites future problems when carrying out decision outcomes. If the details of a policy option remain ambiguous, the implementation of the result varies greatly depending on how the policy is interpreted, which also moves power from the electorate into the hands of the officials in charge of interpretation.

The implementation of any outcome is also constrained by outright physical limitations. If
votes are held on single issues, there is no guarantee that the combined outcome is feasible in reality, given an unfortunate set of issues and policy decisions. For instance, the electorate might approve projects without any means to fund them, rejecting spending cuts, tax hikes, increased borrowing, and expansionary monetary policy alike. Some voters might be tempted to favor positive aspects of the projects while dismissing costs, and it is possible that their views are internally inconsistent in the sense that all their goals cannot be realized simultaneously. However, it is also possible that they disagree on their preferred form of funding in such a way that there exists majority support for a project in some form but no such support for any particular form of funding.

Single-issue requirements may even be legally enforced. For instance, this is the case in California, where each referendum must be held on a single issue. The Constitution of California stipulates that "an initiative embracing more than one subject may not be submitted to the electors or have any effect. ${ }^{25}$ The principle of single-issue decisions appears somewhat similar to its counterpart in Ward and Weale's majorities rule. Predictably, referendums have been accused of violating legal principles, and state courts have had to pass judgment on the cases in question. Lagerspetz examines two court cases of this kind that took place in California and Oregon. The courts had to rule on whether the referendums were held on single issues or packages of multiple issues. In the process, they had to take stances on what constitutes a single issue to begin with, given that it is the central question over which the cases were fought. ${ }^{26}$

In 1982, the Supreme Court of California had to review the single-issue rule in Brosnahan vs. Brown. The proposals in the referendum involved the rights of victims of crimes. According to the court's summary, the initiative dealt with eleven topics, such as restitution, bail, and plea bargaining. Even so, the court ruled by a four-three vote that the initiative met the single-issue requirement. The dissenting justices argued that the voters were unable to vote on individual provisions because of the framework of the initiative, namely voting on the entire package instead

[^13]of single issues. ${ }^{27}$ In "A theory of direct democracy and the single subject rule," Robert Cooter and Michael Gilbert quote a member of the court who asserted that "almost any two (...) measures may be considered part of the same subject if that subject is defined with sufficient abstraction. ${ }^{128}$

In Oregon, the State Supreme Court encountered a fairly similar case. In Armatta vs. Kitzhaber, the court had to rule on an initiative on the rights of victims, which proposed changes related to jury trials and pre-trial release, among other provisions. In this manner, the initiative was also relatively similar to the Californian referendum in terms of substance. The initiative was approved by the voters in 1996, but - unlike its Californian counterpart - the Supreme Court of Oregon ruled that it violated the single-issue rule that was in force in the state. The original initiative was later broken down into seven initiatives with more limited issues on the agenda, which were subjected to votes in 1999. As a result, four of the initiatives were passed as before, but three were defeated, indicating that even though the entire package had gained majority support, some of its components had not. ${ }^{29}$

Based on these examples, Lagerspetz notes that "the identity of an 'issue' or 'subject' is often a controversial matter" and that choosing agendas may be controversial and subjective in general. ${ }^{30}$ For sure, the examples demonstrate that there may be disagreement on what constitutes a single issue, with actual impact on the results of the votes. On reasonably similar matters, the Californian court deemed that the referendum only involved a single issue, while its Oregonian counterpart considered it a vote on packages of multiple issues. The courts may have ruled differently for a number of reasons, but a possible explanation is that they held different conceptions of the nature of single issues. If that is the case, the Californian court - or more specifically a majority of its members - was more willing to broadly include different topics within the boundaries of a single issue. Examples like these do not by themselves prove that an objective, universally correct agenda

[^14]could not be determined. However, if it is claimed that such an agenda exists, the burden of demonstrating how it can be determined is on those who have made the claim.

## 3 Majorities rule and related issues

Ward and Weale have proposed a voting system called "majorities rule" that relies on single-issue referendums exclusively. This approach rules out votes held on package deals that involve multiple issues for a single vote, which is a significant limitation, as real-world referendums may be votes between combinations of individual policies, possibly a great number of them. As noted, the nature of a single issue may itself be called into question. ${ }^{31}$

Majorities rule also stands in contrast to other institutional frameworks of political decisionmaking, most prominently indirect systems of representation. Ward and Weale seek to eliminate the aspects of parliamentary practice that pertain to strategic voting, including party-political coalitions, compromises, and vote-trading. Parliamentary representatives frequently negotiate on their voting intentions, often in party-political blocs that agree on shared voting intent. Particularly extensive negotiations are held in the formation of coalition governments and the manifestos they pledge to implement. Ward and Weale wish to avoid negotiation altogether, ruling out all these activities. ${ }^{32}$

Ward and Weale present their model in considerable analytical detail, expressed in the conceptual framework of social choice. They lay out formal axioms, from which they derive further results, making use of various mathematical tools. ${ }^{33}$ The process of deriving majorities rule is outlined further below. It is worth noting that the axioms adopted by Ward and Weale are associated with a set of democratic principles, such as equal participation, responsiveness to popular opinion, immunity to strategic activity, and the ability to choose precisely one decision alternative. In their

[^15]system, these principles are given specific mathematical formulations that adhere to the conception of democracy that Ward and Weale endorse. ${ }^{34}$ That said, we should keep in mind that these formulations are only one possible interpretation of the principles. Alternative formulations have been presented in social choice theory and broader democratic theory, and even more can be conceived.

### 3.1 Median rule

Ward and Weale define their decision-making rule so that on each issue it follows the median of the expressed preferences of the voters. When all the votes are ordered on a single dimension, an equal number has been cast on each side of the median. This can also be envisioned so that the rule adopts the expressed preference of the median voter. ${ }^{35}$

Given a ballot with only two items, the median rule defaults to the decision alternative chosen by the majority, assuming the absence of ties. In the presence of a greater number of options, the vote cast by the median voter may also represent a minority option, perhaps even a small faction, as long as the median happens to occupy a suitable position. In the examples presented in this thesis, the issues on the ballot are predominantly dichotomous, so the decision-making process applies the majority rule. This choice of examples is mostly made for the sake of simplicity, as severe problems arise with dichotomous issues on their own, without further complications.

It is worth a brief note that ties must be resolved by other means because in such situations the median rule proves inconclusive. Potential solutions may involve other aspects of voter preferences, maintaining the status quo, or relying on lottery, for instance. The examples presented in this thesis do not include such scenarios, so this additional difficulty is avoided.

In addition, the median of a set of decision alternatives can only be defined in a meaningful

[^16]way if the alternatives can be ordered along a single dimension. This by itself can be troublesome. In some instances, a suitable scale can be defined with relative ease, or at least the people involved can agree on one. For example, if a referendum is held on the rate of the minimum wage, the voters could simply present their preferred rate in the form of a figure. However, if they are voting on the lyrics of the national anthem, providing a suitable ordering is far more challenging. Naturally, it is always possible to invent an arbitrary ordering for any set of options, but it has to be meaningful for the application of the median function to be democratically justified. For instance, ordering the lyrics alphabetically would obviously not be acceptable for this purpose. For the median result to be democratically relevant, it must reflect democratic principles in a meaningful way.

### 3.2 Temporary coalitions

A consequence of the single-issue approach is that there need not be a stable majority coalition in place, as the composition of the majority may vary from vote to vote. In fact, this is one of the central features of majorities rule and closely connected to attempts to avoid negotiation and strategic voting. Stable majority coalitions are typically established as a result of extensive negotiation, without which majorities come about in a more sporadic manner for different issues. ${ }^{36}$ Incidentally, it seems as though the system has been named "majorities rule" instead of "majority rule" precisely to highlight the existence of multiple overlapping majorities. This distinguishes it from rule by a stable majority coalition, such as in parliaments, and from other instances in which a single majority is sufficient.

Keeping that in mind, Ward and Weale point out that temporary single-issue coalitions also take place in parliamentary votes. As examples, they present temporary coalitions that took place in the Danish parliament in the 1980s. The government had to concede on some issues to an

[^17]alternative majority that consisted of governing and non-governing parties. ${ }^{37}$ Likewise, they note that in 2007 the minority administration in Scotland sought approval from the Scottish Parliament on single issues. According to Ward and Weale, these are instances of majorities rule in real-world parliamentary contexts. ${ }^{38}$

It is true that a government may win some legislative votes and lose others. Such a government may be a minority government, or it is possible that not all votes follow party lines. Minority governments consist of parties that do not control a majority in parliament even together, so they require the aid of others to pass legislation. The reliability and coordination of support from other parties varies. Some may very actively support the government, and it is possible that related negotiations are held before the government has taken office, or they may only support the government on a limited number of issues. Furthermore, even if the governing parties formally control a majority, votes may cross party lines and the division between the government and the opposition. To begin with, it is not as though every vote has been agreed beforehand as part of an overarching agreement, as government manifestos often only outline broad goals.

Ward and Weale claim that the existence of temporary coalitions in parliaments is evidence in favor of the practicality of majorities rule, as single-issue decisions have proven themselves in legislative practice. ${ }^{39}$ However, these parliamentary examples are far from the majorities rule that they have envisioned. Even if temporary coalitions are sometimes established, this differs from a system that exclusively relies on single-issue decisions. Furthermore, even if a parliamentary vote diverges from government policy, instead receiving the backing of a temporary coalition, this does not imply an absence of strategic activity. On the contrary, building coalitions may be preceded by extensive negotiation and trade-offs. These trade-offs may materialize within the vote itself, as additional content is packaged into the item on the agenda, or in future votes on other issues.

[^18]Consequently, it is plausible that the members of the coalition carry out their votes in a very strategic manner, which is precisely what Ward and Weale wish to avoid.

It is also up to debate whether temporary coalitions are truly voting on single issues. Naturally, this depends on our conception of a single issue, as the votes may involve highly complex policy positions. Even if a coalition is so temporary that it only holds together for a single vote, the item on the agenda may be so complex that the coalition essentially has to decide on a great number of policies.

Given that Ward and Weale's parliamentary examples are not accurate representations of majorities rule in its purest form, their strengths and weaknesses also somewhat differ. Temporary coalitions may incorporate elements from both permanent coalitions and single-issue votes, without fully implementing either approach. If the difficulties in adopting majorities rule turn out excessive, establishing more limited temporary coalitions may be a viable option, depending on the issues at hand.

### 3.3 Axioms and deriving the system

To derive their decision-making system, Ward and Weale present a number of formal axioms: anonymity, resoluteness, responsiveness, and strategy-proofness. They wish to justify the axioms by citing democratic principles, especially the equality of voters and effective popular participation. ${ }^{40}$ These principles are indeed commonly associated with democracy, often as critical parts of any minimally democratic system, but they may be understood in a number of ways. The axioms presented in this chapter reflect the views of Ward and Weale in particular.

Indeed, we should keep in mind that there exist many different conceptions of democratic principles. Even theorists who agree on them - at least in a very general sense - may disagree on their specific formulations or how the principles should be implemented in practice. For instance,

[^19]those who endorse political equality may have very different conceptions of it, and they may also have different ideas of how to introduce it into political processes. In essence, the label of "equality" suffers from a degree of ambiguity, given that it may refer to several different principles in terms of detailed substance. Consequently, even those who endorse political equality and effective popular participation in a general sense may disagree on adopting the axioms that Ward and Weale have employed.

From other viewpoints, it may even be argued that majorities rule undermines equality and effective participation under particular circumstances. In fact, further below it is demonstrated that single-issue decisions may be detrimental to effective participation, as most voters may be dissatisfied with the combined outcome of the decisions. Voting on single issues may also undermine equality due to problems with agenda formulation, given that agendas are vulnerable to strategic activity and arbitrary processes. At the very least, this is the case if equality and effective participation are conceived in a particular manner, which somewhat differs from the definitions adopted by Ward and Weale. This is also examined in greater detail below.

Of the presented axioms, anonymity is examined first. To put it in simple terms, the axiom stipulates that the outcome must not depend on the identities of the voters. That is to say, the voters can be permuted over their positions without a change in the outcome. According to Ward and Weale, this is justified by political equality, as all participants must have an equal opportunity to influence the outcome. Due to contingent circumstances, some voters may succeed in their electoral goals more often than others. They may take part in majority coalitions that happen to win most of their votes. This is still in line with equality as defined in this context, as the voters enjoy equal opportunity to influence the result, even if their rate of success is unequal. However, for anonymity to apply, the electoral rules are not allowed to grant a privileged position to any voter, for instance by giving particular individuals more votes. ${ }^{41}$ Of course, according to other definitions, unequal win rates might be considered a violation of equality, but a system that adheres to such an axiom would

[^20]have to adopt a different set of rules. These rules would have to enforce equal win rates, and consequently the system would differ from conventional democratic processes.

The second axiom is responsiveness, which is connected to how closely the outcome follows the popular will. When a change takes place in the preferences of a voter - or at least in the preferences that he has expressed in the form of a vote - the outcome of the collective decision will "move" in the direction indicated by the change, provided that the outcome "moves" at all as a result. In essence, if a voter decides to change his vote, it benefits the decision alternatives that are higher ranked on his ballot than before. As a result, the collective decision may change in favor of these alternatives as well, but it is also possible that no change takes place. For instance, in a simple majority vote between two alternatives, the collective decision will only change if the change in the voter's ballot manages to overturn the majority. Only the deciding vote can change the overall result, but each individual vote brings the vote distribution closer to flipping the majority. ${ }^{42}$

To be precise, the property described above is labeled "positive responsiveness" by Ward and Weale. ${ }^{43}$ Strictly speaking, the axiom they stipulate is somewhat different:

> A collective choice function is responsive if it satisfies two conditions. The first is restricted responsiveness, which means that if only one voter's declared position changes, then the outcome on any issue only changes if that voter's position on that issue changes. The second condition, issue responsiveness, requires that on any issue there is always at least one voter who can alter the outcome. ${ }^{44}$

Ward and Weale assert that this definition is actually somewhat weaker than positive

[^21]responsiveness. However, together with the other axioms, this weaker responsiveness implies the stronger, positive form of responsiveness. ${ }^{45}$ For the purposes of this thesis, positive responsiveness is sufficient for understanding the role of responsiveness in majorities rule.

Ward and Weale argue that responsiveness is a necessity for any democratic form of popular participation. Procedures can only be called democratic if the participants have a genuine chance of influencing the outcome. ${ }^{46}$ If there is a change in preferences, democratic rules must not change the outcome in the opposite direction or be completely oblivious to changes in preferences. For instance, if the collective outcome was determined by lottery, all voters would be treated equally in the sense that each alternative would have an equal chance of winning. However, the decisionmaking method could hardly be called democratic, at least in a conventional modern sense, because the contents of the votes would be ineffective.

The third axiom is resoluteness, which refers to the property that the decision rule chooses one and only one alternative. As a result, the rule will always make a conclusive decision. To justify the axiom, Ward and Weale appeal to equal and effective popular participation. ${ }^{47}$ If the decision rule yields no outcome, it may easily result in an undesirable situation. The absence of decisions may be very troublesome for the participants, who are unable to implement their policy goals. This can take place if the criteria for making decisions are so strict that they cannot always be met. For instance, if decisions have to be made by supermajority, there may not be any decision alternative that can gather sufficient support and the situation results in a deadlock. The broad adoption of supermajority rules may grind decision-making procedures to a halt and paralyze political institutions. The greater the supermajority needed, the more likely stalemates become, other things being equal. Of these rules, requiring unanimity is predictably the most likely to produce a stalemate.

[^22]Of course, even in the presence of indecision, in the real world some state of affairs will still assert itself. One possibility is the continuation of the status quo. This may be to the benefit of particular factions, who may even promote indecision on purpose to maintain the status quo. Furthermore, persistent indecision creates an incentive to implement policy by means outside the formal political process. Especially if the issue at hand is of great importance, it becomes tempting to resolve the stalemate by other means, such as force of arms, coercion, or methods that rely on chance. If a final decision can only be concluded by non-democratic means, it undermines the democratic credentials of the entire process. That said, supermajority rules may still have their uses. When the situation calls for caution against changing the status quo, it is reasonable to demand greater support than a simple majority. For instance, this may be the case in constitutional contexts.

If a rule yields multiple alternative outcomes, Ward and Weale argue that the final decision will fall to a privileged group or arbitrary factors. ${ }^{48}$ At the very least, it will have to be concluded with methods outside the democratic process. If the decision cannot be made by any means, it will obviously result in indecision. In this sense, a rule that yields multiple decision alternatives closely resembles a rule that yields none.

The final axiom, strategy-proofness, is arguably the most controversial and contributes to troublesome consequences, so it is examined in greater detail. It turns out that strategy-proofness excludes most of the voting rules in common electoral use.

### 3.3.1 Strategy-proofness

The axiom of strategy-proofness dictates that the decision rule must be impervious to strategic voting, which refers to voters manipulating the rule to provide their preferred decision alternative with an advantage. More precisely, strategic voting is the act of voting contrary to genuine

[^23]preferences in order to reach a better outcome. ${ }^{49}$ Strategy-proofness then implies that there should be no opportunity for strategic voting. The voters should not have incentives to express their preferences inaccurately and should instead have incentives to report them in accordance with their genuine preferences.

Strategic voting can be conducted with a number of different methods. For instance, voters may cast their votes in favor of a less preferred option to avoid an even inferior outcome, as their most preferred option stands little chance of being chosen as the aggregate decision. This kind of activity may be a result of electoral rules that encourage it. For instance, this is likely to take place under plurality voting, which heavily favors the most popular candidates on the ballot, especially the two leading candidates. These properties of the plurality rule are examined in greater detail below when strategic activity is discussed further.

In some cases, it is also possible for voters to improve the chances of their preferred option by voting against it. For instance, the voters may be planning to obtain an easier opponent for future rounds in a runoff election. If the candidate they support is reasonably certain to advance to a runoff round but cannot win outright during the first round, they can allocate a portion of their votes to another candidate, whom they wish to face during the next rounds.

Various forms of abstaining may also be considered strategic voting. Abstaining may be beneficial in the presence of quorum requirements, that is, in votes that are only valid with a sufficiently high turnout. If the quorum is not met, the results are discarded and another state of affairs asserts itself by default, for instance the status quo. If the expected turnout is low, supporters of this default option may actively campaign in favor of abstaining.

Incidentally, quorum thresholds are occasionally in place for referendums. For instance, a referendum was held in the Republic of Macedonia in 2018 on the country's proposed new name, the Republic of North Macedonia. The name change had been negotiated with the Greek government to end a long-standing dispute over the name. The vast majority of voters, $91.48 \%$,

[^24]approved of the name change, but turnout was at $36.89 \%$, lower than the fifty-percent threshold that would have made the referendum result legally binding. In fact, opponents of the name change broadly promoted the idea of boycotting the vote. ${ }^{50}$ However, in 2019, the Macedonian Parliament voted in favor of the name change, passing the appropriate amendment to the country's constitution by a supermajority. ${ }^{51}$ Later, the Greek Parliament also voted in favor of the agreement. ${ }^{52}$

As justification for the axiom, Ward and Weale consider strategy-proofness essential for political equality. They argue that immunity to strategic voting is a prerequisite for this equality because the voters are unlikely to possess equal opportunities for strategic activity, in part due to varying levels of access to information. ${ }^{53}$ There is some truth to this. Voters may have very different levels of access to information because of differences in their mental faculties or the circumstances of their lives. That said, as we examine this issue further below, it turns out that strategic voting can only be eliminated in its entirety by making the voting system highly vulnerable to agenda manipulation, arbitrary agenda formation, and other agenda-related problems. These problems also involve unequal access to information and the presence of arbitrary elements that introduce more inequality. Eliminating strategic voting will remove some of the inequality related to it but may result in agenda-related forms of inequality growing more pronounced.

Of the presented axioms, strategy-proofness receives the most attention in this thesis, as it is highly demanding and rejects a great number of electoral systems in everyday use. The other axioms are far less controversial and by themselves do not constrain the set of possible voting rules as severely. More specifically, it is the addition of strategy-proofness that limits majorities rule to single-issue votes. After presenting the remaining part of deriving majorities rule, further problems concerning strategy-proofness are examined.

[^25]
### 3.3.2 Percentile methods and the contractarian argument

The only decision rules that satisfy the full set of axioms are what Ward and Weale call percentile methods, that is, rules with outcomes corresponding to particular percentiles of the distribution of votes. The rule that applies the fiftieth percentile chooses the median position among voters, which is the rule utilized in Ward and Weale's majorities rule. However, the percentile threshold can also be chosen differently, either higher or lower. Furthermore, as noted, each issue is voted on separately. ${ }^{54}$

For the sake of simplicity, the examples of applying majorities rule presented in this thesis are dichotomous, and thus each vote is held between two decision alternatives. For an alternative to be passed, its vote count must then surpass a specific fraction of the number of votes cast overall. The rule that applies the fiftieth percentile sets this fraction at a half, which results in the simple majority rule. It chooses the decision alternative supported by the majority, which is also the median position among voters, ignoring ties. Meanwhile, supermajority rules set the threshold higher.

Of percentile methods, Ward and Weale opt for the median rule by appealing to a contractarian argument. The rule is chosen from the pool of percentile methods by hypothetical contractors as they attempt to minimize their a priori expected losses, assuming equally likely positions for each voter on each issue. In the case of dichotomous votes, this results in the simple majority rule. If the vote threshold is set at half, each contractor is the least likely to lose their votes. With supermajority rules, they lose more frequently because a greater number of votes is required to achieve victory. Notably, the contractors cannot assume that the status quo or any alternative default option is in their favor because it may as easily be against their preferences. Setting the threshold for victory below half would also result in more frequent losses than with the simple majority rule. Furthermore, this would allow rival minorities to overturn each other's positions, resulting in an unstable decision-making system. Consequently, the contractors adopt the optimal approach and

[^26]choose the simple majority rule. ${ }^{55}$
Even without endorsing Ward and Weale's premises or the contractarian approach in general, there are other plausible reasons to avoid supermajority rules. As noted, if no item on the agenda can gain sufficient support, some state of affairs will assert itself, possibly the status quo. It is possible to formally codify a default option, or it can be left unspecified. Either way, supermajority rules favor it over other alternatives. If the default option has been codified and is included in the set of decision alternatives, supermajority rules are not neutral for all the alternatives. Namely, they favor the default option. Alternatively, if a default option has not been codified, supermajority rules are not resolute and may result in an inconclusive situation.

As Ward and Weale explicitly state, in the contractarian setting the set of acceptable social arrangements is constrained by the democratic beliefs of the contractors. These beliefs are given specific formulations by the presented axioms. ${ }^{56}$ Because they have adopted these axioms, they do not even consider other plausible options, which could be realized by relaxing the strict demand for strategy-proofness. For instance, as a prominent alternative, they could introduce suitable schemes of representation within a parliamentary system. To begin with, it is not as though referendums and representative institutions are mutually exclusive, so they could be employed simultaneously.

The axiomatic constraints of Ward and Weale's position remain open to challenge. Even if we for the sake of argument grant that the hypothetical contractors are democrats, there still remain many competing conceptions of democratic values. The conceptions promoted by Ward and Weale appear plausible at a glance, but democrats of a different kind might opt for a different approach and emphasize different factors when designing electoral systems. For instance, even if they agree with Ward and Weale on the principle that electoral systems should be designed in a way that limits strategic activity, they may also value the ability to make decisions concerning complex, interconnected issues in an effective way.

[^27]
### 3.4 Limitations imposed by strategy-proofness

Of the axioms stipulated by Ward and Weale, strategy-proofness is the most responsible for excluding decision rules in widespread electoral use. This includes many common electoral rules, as they are vulnerable to strategic voting to some extent. That said, some are more pronouncedly vulnerable than others.

Consider the plurality rule, under which strategic voting is readily apparent. In each district, only the candidate who receives the most votes is elected, so many voters may realize that their preferred candidates stand little chance of winning. As a result, they are tempted to cast their ballots in favor of the frontrunners. More specifically, they hope to avoid the candidates whom they find the least appealing, so they settle for a compromise candidate that they dislike less. In the presence of more than two candidates with decent popularity, many votes can easily be wasted in the sense that they could have been cast on a compromise candidate to avoid the worst outcome. In this manner, the plurality rule favors the presence of two frontrunning candidates in each district. In parliamentary elections, this promotes a two-party system, in which case the two most popular candidates in each district tend to represent the same two parties. This tendency is known as Duverger's law. ${ }^{57}$ It is also strategically advantageous for parties to focus on districts with close electoral races, known as marginal districts, while paying less attention to districts with clear-cut results.

If the election is held in multiple districts, the results are also highly vulnerable to the drawing of district boundaries. By splitting up likely supporters of their main opposition into districts in a suitable manner, a party with fewer votes can win more seats, perhaps by a significant number. With an optimal distribution, the supporters of the main opposition party are concentrated in only few districts. The party that benefits can win a large number of electoral races by narrow margins, while letting the other party win fewer races by wide margins. Beneficial districting may

[^28]occur by chance, but it can also be utilized for political gain on purpose, which is called gerrymandering.

The plurality rule demonstrates some of the undesirable consequences of strategic activity, as the influence of the voters greatly depends on the information at their disposal and their ability to coordinate their votes. As a result, the outcome is heavily influenced by arbitrary factors. The rule also limits the political alternatives available and is likely to instate a rigid two-party system. Furthermore, widespread strategic voting blurs the informational output of elections due to the difficulties of distinguishing between strategic and non-strategic actors. It is challenging to judge how many voters cast their votes in favor of the candidate they preferred and how many settled for a less preferred candidate to prevent the election of even inferior alternatives.

To avoid these problems, limiting the opportunities for strategic voting may understandably be seen as prima facie valuable. However, the full immunity sought by Ward and Weale may turn out far too demanding. By adopting a suitable scheme of representation, it may be possible to significantly limit the opportunities for strategic voting while retaining the advantages of representative systems, such as the better ability to formulate agendas and negotiate compromises.

In these efforts, proportional representation appears to be a promising alternative. For instance, consider the d'Hondt method, according to which seats are allocated on the basis of successive quotients. The quotients are calculated as follows. At each step of the process, the number of votes the party has won is divided by the number of seats it has been allocated so far, with the addition of one. The next seat is awarded to the party with the highest quotient on the round in question. This results in a somewhat proportional allocation, but the d'Hondt method still favors larger parties to an extent. ${ }^{58}$

In this manner, small parties also have to face electoral thresholds in a sense, even if they have not been formally codified in law. That is to say, small parties have to win a disproportionally great number of votes to win their first seat, compared to the rate at which larger parties win seats.

[^29]Electoral thresholds exist in any proportional system in which the number of representatives is lower than the number of voters. ${ }^{59}$ Let us consider somewhat of an extreme example, in which there are so many seats that a candidate can be elected for certain with only two votes. Clearly, an electoral threshold comes about at this number of votes. Despite this low threshold, it is possible to waste a vote by supporting a candidate alone because another vote would be required for them to be elected. This creates an incentive to vote for a candidate who is supported by at least another person, which is a form of strategic voting. The strategic activity described here is much weaker than in most cases because only minimal support is necessary for candidates to become viable. This serves as an example of the fact that proportional representation is not immune to strategic activity either, even when the number of seats is great.

Because of possibilities like this, Ward and Weale reject all forms of proportional representation as well. Even so, by adopting suitable rules, the incentive for strategic voting may be far weaker than under the plurality rule, as demonstrated by the example above. Under the plurality rule, only the winner advances, so the electoral threshold - or rather its equivalent for singlemember districts - is equal to the vote count of the candidate who is second in popularity. Consequently, it is easy to waste votes by voting for any candidate other than the two most popular entries.

More generally, not all electoral rules are equally vulnerable to strategic voting. By adopting a suitable system of representation, we can reduce opportunities for strategic voting while retaining desirable properties not present in single-issue referendums, such as better control of agendas and management of interconnected issues. Lagerspetz also argues that in many cases representation provides better means for popular control than single-issue referendums. ${ }^{60}$ This can be achieved at the cost of sacrificing a measure of the strategy-proofness that Ward and Weale are promoting. There is no need to settle for the plurality rule. Instead, we could adopt majoritarian rules that are

[^30]less vulnerable to strategic activity or adopt suitable methods of proportional representation. It is worth noting again that vulnerability to strategic activity greatly depends on the detailed properties of the rule in question, so potential electoral rules should be studied in great detail. That said, given their vast number and complexity, a broad study of electoral rules is beyond the scope of this thesis.

A potential drawback of proportional rules is the frequent need for coalition talks. The lower the electoral threshold, the greater the number of parties that can enter parliament, other things being equal. With more parties taking part in the talks, it becomes all the more challenging to form a coalition. In contrast, the plurality rule favors large parties more strongly, so - other things being equal - fewer parties will be able to enter, and it becomes more likely for a single party to form a majority government. Similarly, if a coalition between parties is needed, it will likely consist of fewer participants. Instead, coalitions can primarily be set up at the election stage. The voters can strategically vote for compromise candidates, thus forming coalitions that support them. However, proper coordination of these efforts is difficult because of the size of the electorate and because there is no evident universal method to reduce a great number of viewpoints to only two. Furthermore, it is challenging to determine the nature of these coalitions. After an election, it is difficult to judge whether the winning candidate won due to compromise or thanks to the votes of his core supporters.

Naturally, Ward and Weale's system of single-issue referendums makes building coalitions even more challenging because the votes are held issue by issue. This aversion to coalitions is intentional. Coalitions would be able to negotiate on package deals and coordinate strategic voting in parliament, which is precisely what Ward and Weale are attempting to avoid.

Ward and Weale also briefly examine the notions of sincere and shrewd strategic voting that were presented by Keith Dowding and Martin van Hees. Of course, Ward and Weale end up rejecting all forms of strategic activity altogether, regardless of whether they fulfill the criteria of sincerity. ${ }^{61}$ Even so, the idea of sincere voting is worth a brief study. Dowding and van Hees define

[^31]two different forms of strategic voting - sincere and shrewd - and claim that the former is morally more permissible than the latter. Sincere voting involves voting for a less preferable option to reach a compromise and avoid an even inferior outcome. Compromise candidates in the context of the plurality rule - as in the example discussed above - fall within this category. Dowding and van Hees approve of this kind of voting behavior because it is transparently aimed at achieving compromise. Meanwhile, insincere or shrewd voting includes all other forms of strategic voting, such as voting against the most preferred option to help it win. As noted above, this might take place in a runoff election to obtain an easier candidate for a future round. Similarly, Dowding and van Hees consider abstaining from votes a form of shrewd activity. ${ }^{62}$ This might take place in a referendum with a quorum requirement. In a sense, these two examples resemble each other. Abstaining may help a decision alternative win by deliberately not supporting it in the vote, much like voting for another alternative in the runoff example.

However, sincere strategic voting may also have a detrimental effect on democratic practice. This is demonstrated by the plurality rule, under which all strategic voting is sincere, as other forms of strategic voting are ineffective. ${ }^{63}$ The voter cannot increase the chances of his favorite candidate by voting for another, but he can vote strategically in the name of compromise. While this kind of voting is sincere, it comes with significant drawbacks. Among other consequences, adopting the plurality rule may lead to gerrymandering and a two-party system.

Indeed, it can be argued that sincerity is not the most relevant concern when evaluating the harmful consequences of strategic voting. A system that allows shrewd voting can be far less vulnerable to strategic voting overall than a system with only sincere voting. For instance, compare the plurality rule to its runoff counterparts. In runoff elections, there is less of a pressing need to compromise on the first round, as there is still a chance to influence the election in the runoff. On subsequent rounds, there will remain at least one other candidate than the worst option of them all,

[^32]excluding ties. This does not eliminate strategic activity on the first round, as it may still be beneficial to support popular candidates or seek weaker opponents for subsequent rounds. However, in elections by plurality the compromise must be enacted immediately in full or the election may be won by the least preferred candidate. In this manner, the argument by Dowding and van Hees in favor of sincere voting can be challenged without resorting to the strict strategy-proofness that Ward and Weale support.

### 3.5 Separability and single-peakedness

For their system of single-issue referendums to function as intended, Ward and Weale adopt additional premises. In addition to the axioms presented above, they make particular assumptions about the preferences of the voters, namely their separability and single-peakedness. ${ }^{64}$ In this manner, they are restricting the domain of permissible preference orderings and excluding unsuitable preferences from their model. These premises are not entirely trivial and deserve a measure of study.

For a group of voters, preferences are single-peaked if and only if each participant has a unique ideal alternative and the decision alternatives can be ordered on a single dimension in such a way that the further an alternative stands from the ideal, the less it is valued. ${ }^{65}$ As the name of the term suggests, the preferences of each voter contain a single "peak." That is to say, among the alternatives, there exists only one with the highest value - the peak - from which the values gradually descend on both sides, excluding peaks located on the edges of the set. It is worth noting that the dimension in question must remain constant for every participant. If we could fit the preferences on arbitrary dimensions that vary for different participants, it would be far easier to construct a peak for each, but this would not be meaningful for the democratic process or the

[^33]aggregation of preferences. Thus, single-peakedness is defined for groups of voters as a whole.
The condition of single-peakedness is easy to satisfy in a dichotomous setting, while it is more demanding in the presence of more alternatives or a continuous framework. With only two options, as long as one is preferred to the other, single-peakedness is guaranteed. The notable exception is indifference between the two alternatives, with both at an equal level of preference.

Another underlying premise is that preferences must be commensurable. Incommensurable preferences cannot be measured by the same standards, and any ordering would be meaningless. Given the cognitive limitations of voters and the rich variety of human activity, it is not at all clear whether all preferences on an issue can actually be fit on the same scale in a meaningful way. Furthermore, even if this was possible in principle, it would be challenging to apply in practice, as there does not appear to be any evident method of reliably measuring preferences on highly different entities.

Meanwhile, preferences are separable over multiple dimensions of issues if and only if the choice between alternatives on an issue is independent of decision outcomes on other issues. As the name implies, each issue is determined separately, which is precisely what Ward and Weale hope to achieve. Separability is essential for fulfilling the axiom of strategy-proofness. Without separability, decisions on one dimension could be influenced by decisions on others, and as a result the preferences of the voters on combinations of issues might differ from their combined preferences on single issues. The voters would not consider each issue alone but the combinations that are likely to materialize, judging by the relative popularity of different positions. This would promote strategic activity, as the electorate would vote accordingly. ${ }^{66}$ The potential for vote-trading would also increase, though this is more pronounced among smaller groups of voters, such as in parliaments.

The notion of separability carries a measure of intuitive appeal, as some issues appear more closely interconnected than others. At a glance, the level of unemployment benefits and the choice of national anthem seem independent of each other while industrial strategy and environmental

[^34]policy do not. To provide another example, marriage law and the tax code appear fairly independent of each other, but on closer examination some links may be found. For instance, tax codes may contain rules pertaining to marriage. The voters may disagree on the nature of these examples and connect or detach the topics in various ways.

Examples of problems with separability are provided further below. In fact, separability is among the most troublesome aspects of majorities rule and threatens the feasibility of the entire project, so it receives particularly great attention. It seems evident that some issues are more closely interconnected than others, but full separability seems challenging.

It should be noted that separability is defined with regard to the preferences of the voters, not causal relations. The relevant question here is not whether a policy decision affects the outcome of another in a causal sense. Rather, we are interested in whether the preferences of the voters on an issue are influenced by the decision reached on another. That said, preferences are often influenced by causal relations, so it is not as though the latter are meaningless in this context.

Ward and Weale suggest that issues with non-separable preferences may be redefined through debate so that we can instead operate with separable preferences. As an example, they present a two-dimensional scenario in which the electorate contemplates the number of immigrants entering the country and expenditure on policing. The voters manage to reach a consensus on a linear relationship between the two issues, namely on how much should be spent on policing per immigrant. Ward and Weale argue that such a consensus is conceivable, as they believe that disagreements in this instance might be resolved through the use of evidence. They are not explicitly asserting that preferences can always be separated through fact-based debate, but they claim that their argument can be applied to many more cases than previously thought. ${ }^{67}$

Nonetheless, their analysis of this example cannot readily be accepted. Certainly, the consensus envisioned by Ward and Weale is possible, but there is no reason to believe that such a unity in normative views is likely to occur in practice, especially given that the judgment does not

[^35]rely on empirical evidence alone. The relationship between immigration and policing is a potentially divisive topic, not only due to empirical evidence but also normative values. The voters may disagree on the goals they wish to achieve with policing and immigration policy, and they may further disagree on the means to reach these goals, even when presented with the same set of empirical evidence.

Moreover, even if the approach was successful in the setting presented in the example, this might not be the case for arbitrary sets of issues and preferences. If Ward and Weale's method of achieving separability is only effective in very specific circumstances, it severely limits the use of their broader decision-making system. As a result, the applicability of majorities rule in its strict form may remain limited, given the complexity and interconnected nature of real-world political issues. Of course, it may still be reasonable to hold single-issue referendums on a number of occasions, but we should be cautious of how closely the issues are interconnected.

## 4 Further problems and complications

Within this section of the thesis, problems related to single-issue referendums are examined in greater analytical detail. This involves situations in which the overall outcome promoted by majorities rule is actually quite unpopular. For the purpose of demonstrating these problems, a number of examples are presented, portraying decision-making situations that yield undesirable outcomes. In these examples, sets of hypothetical voter preferences are established and decisionmaking rules are applied on them to reach collective decision outcomes.

As the votes are held on single issues, even if the individual decisions are supported by the majority, their combined outcome may be very undesirable. At its worst, the combined outcome may violate the unanimous will of the electorate. If the preferences of the voters are not separable, the potential for disastrous outcomes grows far greater, as the issues may be deeply entangled with
each other. With separable preferences, some of these difficulties can be avoided, but even then single-issue decisions may be inferior to negotiated compromises, even by unanimous judgment.

In addition, a problem related to preference intensities is examined. Compared to singleissue decisions, negotiated compromises can better take differences in preference intensity into consideration. Through negotiation, each faction has a better opportunity to promote their foremost interests and concede on less important issues as a compromise.

The examples have largely been adapted from Social choice and democratic values. In addition, some of them were originally presented by Dean Lacy and Emerson Niou in their article "A problem with referendums." ${ }^{68}$ The votes portrayed in these examples are dichotomous, that is, only have two alternatives on the ballot. This differs somewhat from the system presented by Ward and Weale in their article, in which it is defined within a framework of continuous dimensions. ${ }^{69}$ However, the argument can be established in a discrete setting in a relevantly similar manner, so the examples presented in this thesis follow the latter approach. In other words, the ballot in each referendum will only include a discrete set of alternatives to choose from, unlike the continuous scales used in Ward and Weale's original system. This is done for the sake of simplicity, as the discrete cases are sufficient to demonstrate the problems on which this thesis is focusing. Incidentally, Weale also adopts the discrete approach in Democracy. ${ }^{70}$

The problems presented in the discrete setting will also pose difficulties for their counterparts in the continuous model, as the discrete examples can readily be turned continuous by leaving the rest of the scale blank. That is to say, the preferences of the voters in the continuous model can be allocated in a way that aligns with the corresponding discrete example. Consider a set of dichotomous referendums, each with the options "yes" and "no" on the ballot. On the continuous scale, we could choose the corresponding values zero and one, standing for "no" and "yes,"

[^36]respectively. Because of the properties of the median function, in both systems the voter median will remain within the set of decision alternatives that have received votes, as long as ties between alternatives are not included. Thus, in our example case, the median will adopt the value zero or one in the continuous model and "no" or "yes" in the discrete model. While all possible examples cannot be treated in the same manner, the examples below are sufficient to demonstrate notable problems related to the absence of negotiation and coordination.

### 4.1 Non-separable preferences and suboptimal outcomes

As noted, the separability of the preferences of the voters is a crucial premise for Ward and Weale's majorities rule. Separability ensures that the preferences on various issues can be disentangled to a degree. In other words, the preferences of the voters are not affected by the decision outcomes on other issues. However, as previously examined, preferences are not always separable. In fact, they may be interconnected in such a way that separate decisions yield a highly suboptimal result.

Therefore, it is worthwhile to examine a case with non-separable preferences, involving three voters and two issues. A table of the preferences is provided immediately below.

| A | B | C |
| :---: | :---: | :---: |
| YN | NY | NN |
| YY | YY | YY |
| NY | YN | NY |
| NN | NN | YN |

Table 1. Non-separable preferences. ${ }^{71}$

The table should be interpreted so that each column contains the preferences of a voter. The voters are designated on the topmost row, while each element on the lower rows contains a combination of

[^37]decision alternatives. The first letter is referring to an alternative on the first issue and similarly the second letter on the second, each with two options: "yes" and "no," signified by Y and N respectively. The topmost options are considered the most preferred and the lowest the least. Most of the examples below are presented in the same format.

In addition to individual voters, the example is also applicable to sufficiently unitary and disciplined groups. This could be the case for members of political parties voting in parliament, provided that they adhere to the party line and vote as unitary blocks.

We can grant the preferences of the voters a reasonable interpretation. For instance, let us say there exist two projects. Voter A favors the first project and B the second, and both voters would rather implement their favorite project on its own than attempt to implement them both. In essence, as far as A and B are concerned, the two projects are in competition with each other, perhaps for the same resources. Meanwhile, voter C considers the projects complementary, preferring to accept or reject them both rather than only one. ${ }^{72}$ The preferences listed in Table 1 represent a possible set of preferences that fit this general description.

There exist several methods to make the decision between these policy combinations, and the outcome - the combination of policy decisions - is determined by the choice of method. In this context, four seemingly intuitive methods receive closer attention, and each of them is based on a majority vote in some form. First, the vote can be held on policy combinations. The voters choose the Condorcet-winning combination, that is, the combination that wins all pairwise comparisons with the others. It is worth reiterating that a Condorcet winner might not always exist, but in this example it does.

Alternatively, it is possible to hold votes on single issues without negotiation, vote-trading, or other forms of strategic activity. The order of votes may further be chosen in three different ways. The vote may be held consecutively, that is, first on one of the issues and then on the remaining issue, which totals two different orderings. Notably, the second vote is held with knowledge of the

[^38]results of the first, and this additional information carries influence on the outcome. The established decision on one issue limits the set of possible combined outcomes, from which the voters must choose. Combinations that have been ruled out by the first vote are no longer possible to implement, and the voters take this into consideration. For instance, if the combination NN has been ruled out by a "yes" on either issue, voter C will opt for YY instead, which will flip his vote on the other issue.

The votes may also be held on the issues simultaneously or at least separately, without their outcomes carrying any influence on each other. Of course, the votes are also held without any negotiation or cooperation, which is the approach promoted by Ward and Weale. For the purposes of single-issue votes, Table 1 should be interpreted so that the participants cast their votes according to their preferred policy combinations. For instance, voter A prefers to vote "yes" on the first issue and "no" on the second. The following examples in this thesis operate on a similar basis whenever single-issue decisions are made in the presence of non-separable preferences.

As Lagerspetz points out, granting the first project precedence in voting order over the second yields NY as the result, as the first project is rejected with the support of B and C and afterwards the second project is approved with the support of A and B . The opposite ordering predictably yields YN instead. In this manner, knowledge of the voting result on one project influences the decision on another, demonstrating that the preferences are not separable. After all, if they were separable, then by definition decisions on other issues would not carry any effect. ${ }^{73}$

If the votes are held simultaneously but separately, the winner is NN , ranked last by a majority of voters. As alluded to, the combination of majority winners does not always enjoy majority support, and in this instance it is actually found very unsatisfactory. However, if the issues are decided in combination, the outcome is YY, a Condorcet winner and a compromise with a high level of support. The fact that it is not chosen by the voters is indicative of a failure in coordination

[^39]between them, which is a result of the single-issue approach and the related absence of negotiation. ${ }^{74}$

In fairness, non-separability explicitly violates the premises of majorities rule, and consequently examples such as this lie outside its proper sphere of application. As such, it is only to be expected that the method is unable to function as intended. Under the conditions portrayed in the example, it is hardly surprising that single-issue decisions do not work very effectively and the outcome may go against the wishes of the electorate. Even so, for a voting system to be useful in practice, it should be able to manage various realistic sets of preferences. Adopting the premise of separability is problematic, as it imposes a significant restriction on the application of the system, especially considering how difficult it is to uncouple interconnected issues. This undermines the unique standing in democratic theory that Ward and Weale wish to bestow on single-issue referendums.

However, this is not all. Even when the separability of preferences is in effect, single-issue decisions may yield undesirable outcomes, which are examined in the example directly below.

### 4.2 Violating unanimity

For majorities rule to function properly, it is crucial that the separability of preferences is in effect. However, even this does not appear to guarantee that the combined outcome is to the liking of the voters. Let us study an example, involving three issues and three participants.

[^40]| A | B | C |
| :---: | :---: | :---: |
| YYN | YNY | NYY |
| NYN | YNN | NYN |
| YNN | NNY | NNY |
| NNN | NNN | NNN |
| YYY | YYY | YYY |
| NYY | YYN | YYN |
| YNY | NYY | YNY |
| NNY | NYN | YNN |

Table 2. Violating unanimity with separable preferences. ${ }^{75}$

Here the preferences of the voters are separable. Voter A always prefers "yes" on the first two issues and "no" on the last, regardless of the outcomes on other issues, and the other voters behave in a corresponding manner. The set of preferences portrays multiple interlocked preference cycles, in which combinations enjoy majority support over each other in a cyclical fashion. Furthermore, with the cycles linked as they are, there does not exist any Condorcet-winning combination. ${ }^{76}$

Again, there are several ways to make the collective decision in this instance. If decisions are made on a single-issue basis, simultaneously, and without negotiation, majority votes yield YYY as the combined outcome. However, it seems that every voter would prefer NNN instead. As they are unanimous in their preference, their failure to choose it is evidently a result of failure in coordination, even more clearly than in the previous example. If the actors enacted negotiations and coordinated their votes, they could reach the superior outcome unopposed. ${ }^{77}$

Keeping that in mind, the outcome may turn out even less favorable when the preferences of the voters are not separable. Then the unanimous will of the participants may be violated even more dramatically. Consider the following example.

[^41]| A | B | C |
| :---: | :---: | :---: |
| YYN | YNY | NYY |
| YNY | NYY | YYN |
| NYY | YYN | YNY |
| NNY | NYN | YNN |
| YNN | YNN | NYN |
| NYN | NNY | NNY |
| NNN | NNN | NNN |
| YYY | YYY | YYY |

Table 3. Violating unanimity with non-separable preferences. ${ }^{78}$

Let us assume that decisions on single issues are made in accordance with the topmost combination of alternatives, much like in the example based on Table 1. Now the combined outcome of singleissue decisions is YYY, preferred the least by every voter. It would appear that under these particular circumstances uncoordinated single-issue decisions are exceptionally poor at approximating the popular will. ${ }^{79}$

In the presented examples, the combined outcome is path-dependent, that is, depends on which rules are applied to the vote. Ward and Weale are aware of this problem, but they believe that their axioms provide normative reasons for following the path indicated by uncoordinated singleissue decisions. They are arguing that we should adopt majorities rules because we should agree with the axioms and other premises that they present in their article. ${ }^{80}$

Ward and Weale also explicitly consider the objection that their method may yield suboptimal outcomes. In fact, they admit that the addition of unanimity - that is, the principle that unanimous agreement overrides single-issue decisions - to their axioms yields an impossibility result, implying that no decision rule would satisfy the condition and all their other axioms.

[^42]Therefore, if we adopt the same premises as Ward and Weale in their entirety, we can only accept a decision rule at all by abandoning adherence to unanimous agreement. In fact, Ward and Weale assert that to reach an impossibility result, the addition of Pareto-optimality to their axioms would be sufficient. ${ }^{81}$ A set of decisions is Pareto-optimal when no improvements can be made by choosing another combination of alternatives without leaving at least one participant worse off. This condition is violated by any decision that is unanimously less preferred than another, as then all the participants are worse off. Unanimity is indeed a stronger condition than Pareto-optimality.

However, Ward and Weale reject the impossibility result by again appealing to a contractarian argument. They assert that the contractors would not commit to a universal requirement of unanimity applied on every occasion and would commit to single-issue medians instead. ${ }^{82}$ In essence, they are arguing against the idea that every decision requires the unanimous consent of all participants and they conclude that thus single-issue medians should always be applied instead. Unfortunately, this reasoning is clearly flawed. As Lagerspetz notes, even if the original contractors do not opt for a rule that requires unanimous consent in all decisions, this in no way implies that they would reject their unanimous preference when they have one. ${ }^{83}$ It is not as though they would have to either require unanimity for all decisions or adhere to single-issue decisions for all decisions. It is entirely plausible to apply these rules only under particular circumstances.

Ward and Weale emphasize that a constitutional choice has to be made. ${ }^{84}$ In a sense, this is a prerequisite if the contractors wish their decision rules to be mechanical and resolute. Then the ruleset must be able to produce a decision under all circumstances by mechanical means, and the basis of this ruleset can be interpreted as a constitution. However, the composition of the constitution need not be as simple as Ward and Weale suggest. The contractors need not settle for a

[^43]universal straightforward rule for every possible circumstance, such as always requiring unanimity. Instead, they can apply a variety of rules on a contingent basis. As a result, the envisioned constitution can grow more complex and composite, with rules that consist of a greater number of different elements.

Indeed, the kind of democrat Ward and Weale have in mind is one who remains firmly committed to their axioms despite strong reasons to the contrary. By rejecting negotiation and votetrading altogether, the democrat adheres to the single-issue method even if all participants end up with an inferior outcome. Ward and Weale set out to minimize voter dissatisfaction, but their method only achieves this for lone issues. When the issues are considered together, the outcome may leave a vast number of voters dissatisfied. Violating unanimity is the most drastic example, but lower levels of popular opposition are already a cause for concern.

Lagerspetz notes that the notion of responsiveness employed by Ward and Weale is actually very weak in this sense, as even the unanimous agreement of the electorate is ignored. After all, responsiveness as defined by them only pertains to outcomes on individual issues, not their combinations, so under suitable circumstances the latter may starkly differ from the popular will. ${ }^{85}$ Of course, terms like responsiveness can carry many different meanings, but if it only pertains to following the popular will in terms of single issues, it seems to be missing crucial aspects of what the voters actually wish to achieve. If adherence to the popular will is central to democracy, ignoring it for combined outcomes seems to undermine the democratic credentials of the system in question.

In a similar manner, the difficulties in agenda formulation undermine political equality, moving power into the hands of actors with better opportunities to strategically influence agendas. The people with these opportunities - often the political operators in power - may then choose the agendas that are the most likely to deliver the results that suit their policy aims. Equality in terms of "one person, one vote" is by itself no guarantee of equal effect on the outcome if the ability to

[^44]formulate the agenda is unequal.
In addition, the problems with agenda formulation move power into arbitrary processes that influence agendas, and consequently the political process becomes increasingly removed from conscious design. If many votes are held on interconnected issues without considering their combined outcomes in agenda formulation, the participants may end up surprised by the outcome. The combined outcome may favor particular factions of voters, but this is not a result of conscious design. When the participants had cast their votes, they had not considered all the processes that might influence the combined outcome. In fact, from their perspective, the outcome appears to have been heavily influenced by chance. Essentially, the outcome has then been determined by factors that are democratically irrelevant.

Even in the face of arbitrary processes, it may be argued that the citizens are equal, in a sense. Their chances of gaining a favorable result are equal a priori, that is, without specifying the workings of the process in particular situations. Unfortunately, this is such a weak notion of equality that it would even allow replacing votes with instances of lottery. More generally, adopting a conception of equality that permits arbitrary factors undermines the democratic credentials of any system that adopts it as its foundation, though it may be difficult to avoid entirely.

### 4.3 Preference intensities

Ward and Weale also briefly discuss the matter of preference intensities. More specifically, they examine how accurately voting rules reflect people's differences in terms of these intensities. Given that some citizens may feel more strongly about particular issues than others, it can be argued that the former should be given a greater say in those issues than the latter. Ward and Weale agree in principle but argue that it is difficult to implement in practice. ${ }^{86}$

In particular, Ward and Weale entertain the possibility of adopting cardinal voting rules,

[^45]which take preference intensities into consideration as explicitly expressed distances between alternatives. ${ }^{87}$ For instance, voters could express their preferences on a scale of zero to one, by any number within the interval. The greater the number, the stronger the preference in favor. This stands in contrast to ordinal rules that only rank decision alternatives in their order of preference, either as a complete or truncated list. For instance, if the Borda rule is adopted, voters rank all the decision alternatives, while with the plurality rule they only rank their first preference. In fact, ordinal rules include the vast majority of electoral rules discussed so far in this thesis. As ordinal rules only consider the ranks of the alternatives, they do not explicitly rate preference intensities. If a voter considers two alternatives far apart, they are treated in the same manner as alternatives that are close to each other, as long as the number of alternatives in between remains the same.

Of cardinal voting rules, Ward and Weale examine a rule that chooses the average of the expressed preference intensities of the voters on each issue. They end up rejecting the rule due to strategic manipulability, much like they have rejected most ordinal rules. Under the examined cardinal rule, each participant has an incentive to vastly exaggerate the intensity of the preference they derive from their most preferred alternative in order to maximize the electoral impact of the vote. ${ }^{88}$ Likewise, they have an incentive to downplay the intensities of their least preferred options. On a scale of zero to one, a voter applying this strategy in its extreme form rates their most preferred alternative with one, the greatest number available, regardless of their genuine level of preference. Similarly, they rank all of their less preferred alternatives with zeros. In this manner, the voting method is reduced to the plurality rule and detailed considerations of preference intensities are rendered meaningless.

It is certainly true that in electoral contexts cardinal rules are grossly vulnerable to manipulation, and this provides an argument against adopting them. However, there exists an alternative method that takes preference intensities into consideration: negotiated compromise. It

[^46]can better reflect the priorities of voter groups than single-issue decisions, but Ward and Weale do not consider this approach because they have previously ruled out vote-trading in all its forms.

Let us examine the following example with two issues and three voters.

|  | Issues |  |
| :---: | :---: | :---: |
| Voters | $(1)$ | $(2)$ |
| A | Y | $\underline{\mathbf{N}}$ |
| B | $\underline{\mathbf{N}}$ | $\underline{\mathrm{Y}}$ |
| C | $\underline{\mathbf{Y}}$ | $\underline{\mathbf{Y}}$ |
| Majority | Y | Y |

Table 4. Voters with different priorities. ${ }^{89}$

The table describes the preferred alternative of each voter on each issue, as well as a simple ranking of their priorities. The bold, underlined text represents the issues that the voters consider their foremost priorities. Voter A prioritizes the second issue over the first and voter B prioritizes the first, while for C the two issues share equal priority.

For the sake of clarity, a table of explicit preferences on combinations is also provided.

| A | B | C |
| :---: | :---: | :---: |
| YN | NY | YY |
| NN | NN | YN / NY |
| YY | YY |  |
| NY | YN | NN |

Table 5. Explicit preferences on combinations. ${ }^{90}$

For voters A and B, their priority takes full precedence over the other issue, so voter A will support

[^47]any platform with "no" on the second issue over any platform with "yes" on that issue. Similarly, voter B will support any platform with "no" on the first issue over any platform with "yes" on that issue. Meanwhile, for C the two issues share equal priority, and consequently he considers the outcomes YN and NY equal in value. Incidentally, here the issues are separable, so the preferences of the voters on one issue are not influenced by the decision outcome on the other. This is also indicated by the decomposition in Table 4. If the issues were not separable, the decomposition could not be carried out in the presented form, with preferences on issues described separately, at least if the decomposition must conclusively provide the full lists of preferences.

Much like in the earlier examples, uncoordinated single-issue voting yields the outcome YY, but through negotiation and compromise $A$ and $B$ can form a coalition that implements the platform NN. Voter A prioritizes an outcome with "no" on the second issue and concedes "no" on the first issue, while B acts in a corresponding manner. ${ }^{91}$ A table that also includes the platforms that the voters wish to support is presented immediately below.

|  | Issues |  |  |
| :---: | :---: | :---: | :---: |
| Voters | (1) | (2) | Platform <br> supported |
| A | Y | $\underline{\mathbf{N}}$ | NN |
| B | $\underline{\mathbf{N}}$ | Y | NN |
| C | $\underline{\mathbf{Y}}$ | $\underline{\mathbf{Y}}$ | YY |
| Majority | Y | Y | NN |

Table 6. The addition of platforms. ${ }^{92}$

The platform supported by A and B is the negotiated NN, while C simply supports a platform in accordance with his personal preferences. This is an example of what Robert Dahl calls the rule of intense minorities in pluralist democracy. Minorities with strong emphasis on particular issues may

[^48]be more successful in achieving their policy goals for those issues than majorities that are relatively passive. ${ }^{93}$

The popularity of negotiated platforms can be enhanced further. By adding a third issue in a suitable manner, we can establish a scenario in which a platform is accepted unanimously, even though its individual policy positions would each be rejected by majorities in single-issue votes. ${ }^{94}$

|  | Issues |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Voters | (1) | (2) | (3) | Platform <br> supported |
| A | Y | Y | $\underline{\mathbf{N}}$ | NNN |
| B | Y | $\underline{\mathbf{N}}$ | Y | NNN |
| C | $\underline{\mathbf{N}}$ | Y | Y | NNN |
| Majority | Y | Y | Y | NNN |

Table 7. Unanimously accepted platform. ${ }^{95}$

As indicated by the table, the preferences of the voters have been assigned so that voter A finds the third issue the most important, voter B the second, and voter C the first. The negotiated platform NNN receives unanimous support, while single-issue votes would result in YYY as the combined outcome, which is rejected by all the voters. Therefore, single-issue votes actually result in a Paretosuboptimal combination of policies. In the context of this example, all voter groups benefit from adopting the negotiated platform compared to single-issue decisions. ${ }^{96}$

Notably, the priority-based agreement depicted in these examples does not presuppose that the preference intensities of the voters are interpersonally comparable in any explicit manner, such as in the form of a ballot. In votes held with cardinal rules, the intensities of the participants are aggregated together, while in negotiations each participant only seeks to achieve the relevant

[^49]outcomes. In the latter case, the participants need not express their intensities on any absolute scale, which helps negotiated compromise avoid the problem of exaggerating intensities for strategic gain. ${ }^{97}$

Of course, the preferences laid out in the examples do provide us with some information. For some of the voters, one issue takes full precedence over the other, so the difference in intensity must be sufficiently great. In more complex examples, more detailed formulation of intensities may be necessary to properly model the outcome of negotiations. Nonetheless, unlike when voting by cardinal rules, there is no need to numerically exaggerate or underplay preference intensities. What is crucial here is that even though intensities are not explicitly reported on the ballot, each participant is negotiating in a manner that takes them into consideration. The greater the intensity, the stronger the motivation to seek an outcome that delivers the desired policy positions.

This is not to say that the outcome of a negotiation will always take intensities into consideration in a fair manner. Even if a voter has an intense preference on a particular issue, the negotiated compromise may be unfavorable for him if the preferences of other participants are not aligned in a strategically beneficial way. Without policy positions that are suitable for bargaining, he may find himself without a sufficient number of political allies, and consequently his wishes may be ignored even if the intensity of his preference is particularly great. In this sense, more explicit knowledge of intensities could be helpful to ensure a fair result, but practical applications of this would require the presence of rules that are less vulnerable to strategic activity.

### 4.4 Deciding on agendas based on separability

It seems challenging to determine when items on agendas constitute single issues and when they instead constitute broader packages of issues. As witnessed, this is a notable problem for majorities rule, given that it relies on single-issue decisions specifically. After all, Ward and Weale argue that

[^50]following the majority on single issues represents true democratic principles. Of course, this choice of principles can be contested, but even if we adopted this line of thought, the identities of single issues would remain problematic. If the voters end up casting their votes not for single issues but combinations of them, majorities rule has not been implemented in its intended form.

In "A theory of direct democracy and the single subject rule," Robert Cooter and Michael Gilbert suggest a potential solution. They argue that the task of determining single issues should be handed to the electorate. According to their line of thought, proposals presented in a referendum should be separated if most voters consider them separate issues, that is, if their preferences on these issues are separable. However, if most voters do not possess separable preferences, the votes may be held on packages of "combined" issues. ${ }^{98}$

Lagerspetz notes that this approach cannot fully solve the problem at hand. First, it leaves the problem of suboptimal combined outcomes intact, as it does not consider outcomes at all. Even if their preferences are separable, the voters might nonetheless prefer another combination to the single-issue result. Second, Cooter and Gilbert's approach may fail to select the Condorcet-winning alternative, as the majority that supports the separation of issues may differ from the majorities that win the ultimate votes on the issues. ${ }^{99}$

Consider again the preferences in Table 1. Let us assume that the referendum is planned to be held between packages YY and NN. The voters have non-separable preferences, so according to Cooter and Gilbert they should vote between the packages rather than between the individual issues. Of the packages, YY emerges as the winner, and it also happens to be the Condorcet winner. ${ }^{100}$

Now consider Table 2 instead. The preferences of the voters are separable, so the votes should be held issue-by-issue, but - as we witness when the example is analyzed - this leads to a suboptimal combined outcome. Every voter would prefer another combination, but they cannot

[^51]implement it because of the single-issue approach and the consequent lack of coordination. In this manner, the problem of suboptimal combined outcomes remains in the same form as for Ward and Weale's majorities rule. ${ }^{101}$

In the scenario presented in Table 2, there is no Condorcet winner present. However, as noted, Cooter and Gilbert's approach may fail to choose a Condorcet winner even if it exists. Consider the following set of preferences.

| A | B | C |
| :---: | :---: | :---: |
| YY | YN | NY |
| NN | NN | NN |
| YN | YY | YY |
| NY | NY | YN |

Table 8. Voting on agenda formulation. ${ }^{102}$

Voters B and C have separable preferences and they constitute a majority, so according to Cooter and Gilbert the issues should be voted on separately. This yields YY as the winning combination with the votes of A and B for the first issue, while A and C form a majority for the second. However, NN is the Condorcet winner, which the method has failed to choose. Lagerspetz notes that the majority that determined the separation of the issues differs from the majorities that won the ultimate votes on the issues. That is to say, the identities of voters with separable preferences differ from those that form majorities on particular issues. ${ }^{103}$ This reiterates the lesson that on different issues the popular will may not reflect the preferences of the same coalition of voters. In this sense, decisions on separating issues are items on the agenda themselves.

Lagerspetz also argues that any attempts at solving problems of agenda formulation purely

[^52]by majority vote may result in a regress. It is insufficient to simply vote on which agenda should be adopted, as any such vote would be conducted on an agenda that itself needs justification. By definition, any vote must be held on an agenda of some kind. If every agenda must be determined by vote, the agenda for any agenda-determining vote will have to be voted on as well. Thus we end up in a regress that will eventually have to be halted with means other than voting. We would have to decide on an initial agenda on which the first vote is held. ${ }^{104}$ When choosing agendas, there may be good reasons for choosing particular formulations over others, but separate arguments must be presented to justify their use, as voting on agenda formulation cannot always be relied on.

### 4.5 Uniqueness of majorities rule and the nature of democratic values

Ward and Weale assert that majorities rule "should have an ethically special place deriving from its unique embodiment of democratic values." ${ }^{105}$ By a "special place," they are no doubt referring to their idea that majorities rule should take precedence over other voting rules, but - judging by the problems presented above - it is not at all clear whether this is the case. Their system carries advantages and disadvantages, and its usefulness depends on a number of factors, such as the nature of democratic values that we have adopted and the circumstances involved.

It should be kept in mind that the axioms underpinning majorities rule represent only one possible set of democratic values among many. When Ward and Weale argue that their system is a "unique embodiment of democratic values," the emphasis on uniqueness is troublesome because it is implying that majorities rule represents democracy in its unequivocally genuine form. Given the presence of competing democratic values, this appears to be highly contested. In particular, it is worth emphasizing that nominally similar principles may be conceived and interpreted in a variety of ways. While many democratic theories emphasize political equality and responsiveness, for

[^53]instance, their concrete conceptions and interpretations vary. The name of a concept cannot by itself divulge its contents in a comprehensive manner. Consequently, depending on how we interpret premises related to democratic principles, we may be willing to adopt different decision-making systems. Majorities rule is only one of many plausible democratic systems, each with their strengths and weaknesses and each appealing to different kinds of democrats.

Within suitable contexts, single-issue referendums can act as effective instruments, but this can only be determined after a careful examination of potential items on the agenda and prevailing contingent circumstances. There are not sufficient reasons to grant single-issue referendums a presumptive role in the choice of democratic institutions. That is to say, they should not be adopted as a default option that is applied universally or under all circumstances in which there does not exist firm evidence against them. Especially when single-issue decisions are closely intertwined and the corresponding issues very complex, it should not simply be presumed that the ultimate combination of decision outcomes will reflect the intentions of the electorate. Similarly, it should not be presumed that agendas are formulated in a manner that will deliver the results preferred by the electorate. The burden of proof should not be placed on those who wish to diverge from singleissue decisions but rather in a balanced manner, with all electoral methods judged on their own merits.

Ward and Weale set out to eliminate the possibility of strategic voting and to improve political equality and responsiveness on a single-issue basis. However, this results in agenda-related problems growing more pronounced. The process of voting itself may be free of strategic actions, but it is of little use if the venue of strategizing has simply been relocated to the stage of agenda formulation. In this manner, the agenda has become highly vulnerable to manipulation and arbitrary elements, precisely what Ward and Weale had sought to eliminate, if only in a somewhat different form. Therefore, their notion of strategy-proofness is narrow, as it only captures a limited subset of the activity that could intuitively be described as strategic.

## 5 Closing remarks

In philosophical debate and broader political discourse, referendums are occasionally promoted as an especially democratic form of voting. In these contexts, it may be argued that referendums connect the electorate with policy decisions in a more intimate way than representative institutions because the mediating stage of representation is removed. In essence, it is argued that the decisions reached by referendums reflect the popular will more accurately than those made by representatives, so referendums are more democratic by their nature, perhaps also more legitimate.

Furthermore, democratic institutional practices may be framed as a series of votes held issue by issue, which at a glance appears well suited to referendums. This may be done for the sake of simplicity, as each issue is decided on its own, separately from others. Proponents of this view may also argue that single-issue decisions enjoy greater legitimacy than negotiations on policy packages that involve multiple issues. In the case of referendums held among broad electorates, the difficulty of conducting negotiations is enhanced further by the sheer number of voters. Other things being equal, a large group of people find it more difficult to coordinate their activities than a smaller group. Naturally, this has implications for conducting proper negotiations, which the larger group will find more challenging.

Ward and Weale have presented detailed arguments in favor of adopting single-issue referendums in decision-making. They claim that this method deserves unique standing in democratic theory because it is in line with democratic principles. However, on closer examination a number of problems arise, as the single-issue approach to voting rules and agenda formulation may result in undesirable consequences. In fact, even though a system built on single-issue referendums may appear simple at a glance, this is simply masking the underlying complexity that becomes apparent when trying to determine suitable issues and agendas, as well as interpret the results when the issues are intertwined.

Furthermore, it may be argued that democratic decisions should be made by simple majority because this is a seemingly decisive and unambiguous method. In practice, this easily results in implementing agendas with only two alternatives, as it then becomes easier to establish a majority on each issue. This appears to make the system resistant to strategic voting and related negotiations. When debating democratic theory, decisions between two alternatives are common examples. Some thinkers may even treat them as paradigmatic instances of democracy. However, given the complexity of the real world, there does not appear to be any evident method of reliably reducing issues into dichotomous agendas in a non-arbitrary way. If issues are reduced into a series of dichotomous votes, the way in which the reduction is carried out affects the ultimate outcome as well. Thus, the end result may become unsatisfactory because of difficulties in choosing suitable agendas. The apparent simplicity of choosing between only two alternatives masks the complexity of agenda formulation.

Of course, we need not be limited to the seemingly simplest voting systems, as there exist a vast selection of possible voting rules and institutional solutions. Even in fairly common votes and elections, a great number of rules may be invoked, many of them relatively complex. In this manner, the situation quickly grows far beyond the confines of decisions by simple majority. Different rules may lead to highly different outcomes, yet many of these rules are frequently called democratic. If we accept them as democratic, it seems that democracy encompasses a great number of voting rules, but this does not guarantee that all of them are equally democratic or represent democracy in the same manner. There may also exist non-democratic reasons for favoring particular rules over others, as long as we also value goals other than democracy itself.

If the legitimacy of democracy hinges on implementing democratic rules, investigating the properties of these rules is crucial for establishing legitimacy. However, it seems challenging to establish a ruleset that is perfectly democratic or even the most democratic in any unequivocal sense. Each rule embodies a particular subset of democratic values but only one possibility of many,
and furthermore even central values such as equality carry a multitude of interpretations. All plausible democratic values cannot be implemented simultaneously. Institutional choices may bring considerable drawbacks and limitations, reflecting trade-offs between different sets of values.

To present an example, a potentially important democratic value is responsiveness to the popular will. Its inclusion appears intuitive for any minimally democratic system, but its detailed conceptions vary. Different rules may be responsive in different senses, and the choice of rules depends on which of them we wish to emphasize. This is demonstrated by the study of responsiveness in the context of majorities rule, as voting issue by issue and between package deals may yield dramatically different outcomes. At a glance, it might seem intuitive to assume that issue-by-issue decisions result in popular decisions, but they may also result in a highly dissatisfied electorate. Even if each issue is decided by majority, the majority of the electorate may nonetheless be dissatisfied with the combined outcome. In this manner, it turns out that majorities rule is highly responsive for individual issues but may in turn be very unresponsive for their combinations. Under suitable circumstances, reaching a better outcome would be facilitated by negotiation and compromise allowed by package deals.

Issues may be interconnected in highly complex ways, and it seems challenging to disentangle and reduce them to single issues in a non-arbitrary way. Of course, the outcomes of single-issue decisions depend on how this disentangling is carried out. Ward and Weale are optimistic about separating the preferences of voters so that complex agendas can be reduced to single issues, but they are unable to present any general mechanism for carrying it out. To begin with, it is not at all clear which items should be considered single issues. If the identity of single issues is vague, it is likewise ambiguous when and how single-issue decisions should be applied.

There are real-world circumstances in which single-issue referendums are justified, but this necessitates both detailed normative judgments and careful examination of sociopolitical realities. Some issues may be better suited for single-issue referendums than others. The issues in question
should be relatively independent of other issues, but the electorate may not reach a consensus on when this is the case. Depending on the circumstances, voting on package deals may also be justified, but their compound nature should readily be acknowledged in agenda formulation and interpretation of the results. Of course, a representative system can also be established in parallel to help formulate agendas and implement the results of referendums in practical terms, as well as to make decisions unfit for the referendum device.

That said, it should be noted that coalition-based parliamentary procedures are no panacea for the complications present in democratic practice either. Success in making suitable decisions may hinge on various contingent factors, such as the composition of representative bodies, the rules governing their activities, and the issues at hand. This encourages us to contemplate additional questions about their electoral methods and procedural rules, as there exist many variants in actual use and even more can be theoretically proposed. Somewhat less directly, the functioning of these institutions is affected by the culture of democratic participation and debate. Although deliberation lies outside the strict sphere of social choice, analysis of deliberative schemes is nonetheless relevant for understanding democratic practice.

Another notable democratic value is resistance to strategic activity. Depending on the rules in place, there may be great incentives for strategic voting, in a variety of ways. For instance, the outcome of the plurality rule is only directly affected by which faction is greatest in number. Small factions would need to recruit quite a few additional supporters to swing the outcome in their favor. It is also possible that an increase in their numbers takes place at the expense of the largest faction, resulting in the victory of a third faction.

Strategic voting may be considered a negative feature because it may distort the genuine preferences of the electorate and result in arbitrary outcomes. Some voters may be in a better position to apply strategic voting because of arbitrary factors such as the drawing of electoral districts, which undermines the allegedly equal status of the voters. In addition, voters may also
possess different levels of information, which allows some of them to coordinate their activities and strategize more effectively. This leads to an uneven playing field and likewise undermines equality. Strategic voting also makes it more difficult to interpret electoral results because it becomes difficult to distinguish strategic actors from people who voted for their most preferred alternative.

In some instances, it may be argued that strategic voting is a form of compromise. Instead of their preferred alternatives, some of the participants cast their votes in favor of less preferred alternatives to avoid the worst possible outcomes. Even so, the harmful consequences may persist, which may provide reasons for adopting alternative voting rules with less room for strategic activity.

Furthermore, any popular will only exists in relation to particular agendas, on which votes are held. The choice of agenda has a great impact on the outcome, and it is not at all evident which of the various possibilities should be chosen. If the options on the ballot were entirely different, it may be highly challenging to predict how the electorate would cast their votes. There may exist a great number of items that could potentially be placed on the agenda but are not actively considered by the electorate. Riker objects to arbitrary agendas so strongly that he argues in favor of deeming all outcomes of votes ethically meaningless. Even if we adopt a more moderate position, the problem remains to a significant extent, though it seems impossible to avoid entirely, considering that political activity can only be structured by employing agendas of some kind.

This is a lesson for understanding discourses that can be extended beyond politics. Decisions can only be made if they have been framed by utilizing agendas. Likewise, points of argument pertaining to the issues at hand can only be debated if the debate has been structured in some manner. These structures may dramatically influence the discourse that follows.

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