

## Strategic Voting

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#### INTRODUCTION

Strategic voting deals with that most crucial of questions in political behavior research, how voters make their vote decisions – assuming, of course, that they go to the polls in the first place. The common denominator of all theories of voting behavior is that voters cast their ballot for the most preferred option among the available choices, whether it is an individual candidate or a political party, and no matter whether policies, candidates or other factors drive such a preference. The decision for the most preferred option is called a *sincere vote* in the strategic voting literature.

But the literature on strategic voting does not stop here. The most important departure from other theories of electoral behavior is the assumption that voters not only take their preferences for the different options on the ballot into account but also form and include expectations about the outcome of the upcoming election in this decision. In other words, a voter's decision-making process involves weighting the anticipated benefits from voting for each option on the ballot by the expected likelihood that these benefits will be realized via an electoral victory. Such a decision is then a product of preferences and expectations and a typical example of an expected utility approach (Downs, 1957; Riker and Ordeshook, 1968; McKelvey and Ordeshook, 1972). It formally incorporates voters' preferences and their expectations about the outcome of the election in a unified analytic framework.

A strategic voter is a voter who not only casts her vote in order to maximize the expected utility of a vote decision but also deviates or defects from her most

preferred option due to her expectations about the outcome of the election: a less preferred option might simply have a higher chance of realizing the expected benefits, and thus has higher utility. Only under these circumstances do we call such a vote a strategic vote. The classification is, in the end, not based on the nature of the decision-making process but (post hoc) on the final outcome. Thus, sincere voters can never be strategic voters even if they appear to behave strategically. It might sound counterintuitive, and it certainly contrasts with most other behavioral theories of voting, but a strategic voter does not vote for the most preferred option on the ballot. How do voters combine preferences and expectations? They try to maximize the expected utility by weighting the preference for each party or candidate with the expectations that this party or candidate will be successful in the next election. Hence, in such a utility function the effect of preferences is conditional on a voter's expectation about the outcome. A high chance of electoral success can give even a less preferred option the highest utility and lead a strategic voter to defect from the preferred choice. Electoral expectations make the difference in this case.

This decision logic can for example explain why instrumental voters hesitate to support non-viable parties or candidates. The latter would score devastatingly low in the expected utility calculus. A simple example to which we will come back throughout the chapter can help to illustrate the logic. Let's assume that three candidates, L (left), C (center) and R (right), compete to win in a first-past-thepost election. It could be a presidential election or a single-member district race. Suppose that voters expect a tight race between C and R while L is considered to be a hopelessly trailing and thus non-viable candidate. If supporters of L were to follow an instrumental decision-making logic, they would not 'waste' their vote on the preferred but trailing candidate L but rather vote strategically for their second choice between the viable candidates C and R. If expectations did not matter, our voter would simply receive the highest utility from voting for L, but with expectations included, her utility of an L-vote decreases essentially to zero, a wasted vote. Due to the much higher electoral expectations for C and R, one of them would deliver the higher utility despite scoring lower in terms of preferences (most likely C if we assume that both candidates and voters can be placed on an ideological left-right dimension). Such a theory could be further refined if one wants to specify how those preferences are determined. Some might opt for a weighted combination of valence and policy while others might combine so-called 'fundamentals' such as partisanship, issues (e.g. economy), and candidates as explanatory factors.

The basic logic and the example outlined above capture the core model that underpins current research on strategic voting. In the following sections, we will address and elaborate the key conceptual and methodological issues in the literature on strategic voting, starting simple and adding more complexity along the way. In the following (second) section, we introduce the traditional Duvergerian understanding of strategic voting, the classic and arguably most simple model of strategic voting.

In the third section, we focus on the role of electoral expectations because they play a crucial role in strategic voting. As we will see, expectations are about much more than simply avoiding a wasted vote for a non-viable party. Expectations can and need to be formed about different aspects and steps of an election outcome, ranging from immediate electoral results to successful government formation. For strategic voters, any particular aspect of an election outcome might become relevant, and expectations about each step are necessary to make the best possible decision.

In section four we present two complementary approaches in the literature that try to capture the logic of strategic voting more systematically. We highlight the fact that different electoral systems will provide different incentives to form expectations about different aspects of 'the outcome of an election'. And these different incentives and expectations lead to a number of decision-making strategies that go well beyond avoiding a wasted vote.

In section five we provide an overview of various research designs and methods that are used to study strategic voting. We distinguish different conceptualizations and measurement strategies of strategic voting because there is no consensus in the current literature as to how this should be done. Finally, we conclude this chapter by adding a normative aspect to the discussion: whether strategic voting leads to a misrepresentation of voters' preferences or rather produces more optimal outcomes.

# DUVERGER AND ALL THAT: THE TRADITIONAL UNDERSTANDING OF STRATEGIC VOTING IN SINGLE-MEMBER DISTRICT (SMD) SYSTEMS

Strategic voting is best documented for vote choice scenarios in single-member district systems where the party or candidate with a plurality of the votes wins the district seat. This is the case in the example we introduced earlier. With a strategic vote, supporters of a lost cause such as L make their vote actually count towards determining the outcome of the district race rather than merely being counted. This logic applies to all supporters of all candidates in a district who are not expected to win the election. Also note that electoral expectations are formed in this situation about one specific aspect of the election outcome only, whether or not a candidate is able to win representation in parliament (excluding other aspects such as government formation).

The early political science literature on strategic voting was more interested in systemic consequences of this type of behavior, in particular how vote concentration on viable candidates affects the size of the party system. Written originally as a study of how electoral institutions determine party systems, Duverger's (1954) seminal contribution to the theory of strategic voting is a causal mechanism at the individual level that attempts to explain how electoral systems determine party

systems in a fashion known as *Duverger's Law*. More precisely, Duverger proposes a combination of two processes working together to generate this causal path. The first process is 'mechanical': electoral laws translate votes into seats in parliament, which tends to result in the overrepresentation of large parties and, conversely, the underrepresentation of small parties. This becomes visible when comparing a given vote distribution across parties with the number of seat shares those parties eventually obtain in parliament. Thus, unlike a Robin Hood system where the poor get compensated by redistributing spoils from the rich, the mechanical effect works to privilege large parties (the rich) at the expense of small parties (the poor).

The second process is 'psychological'. Duverger theorizes that voters in an electoral system with plurality voting feel that they will waste their vote if they vote for a minor party or candidate and rather opt for a lesser evil to prevent the greater evil from attaining victory – the process we defined earlier as strategic voting. Thus, the mechanical effect from electoral institutions and the psychological effect at the voter level combine to generate the causal path between electoral institutions and party system.

We can draw one important lesson for political behavior from the early attempts to study strategic voting. Voters are not mere servants of their preferences, as traditional models of voting behavior would have us believe. Quite to the contrary, as in Goldoni's famous play, voters are 'servants of two masters': of their preferences for parties and candidates, and of their expectations about the outcome of the election.

Duverger was actually interested in other electoral systems as well. He suggested that the wasted vote logic should not apply to proportional representation (PR) systems because even marginal parties can expect to gain seats in such systems. This claim has been more problematic and, in fact, proven misguided. In particular Leys (1959) and Sartori (1968) expect significant amounts of strategic voting even in PR systems, as a function of district size. As district magnitude becomes smaller, fewer seats are awarded per electoral district. The so-called Leys-Sartori conjecture (Cox, 1997) therefore posits that strategic voting at the primary district level (the smallest geographic unit in which seats are allocated) increases as district magnitude becomes smaller. Using data from the Comparative Study of Electoral Systems (CSES) project, Gschwend (2009) presents evidence from survey data supporting this conjecture, and Reed (1990) finds evidence for stronger vote concentration and, thus, supposedly more strategic voting in smaller districts using district-level data from Japanese elections. He argues, though, that the dominant mechanism is rather one of strategic entry decisions by parties than strategic voting by citizens.

Cox (1997) generalizes these arguments further to any multi-member systems and formalizes them. He proposes an M+1 rule, indicating an upper bound for the number of viable parties or candidates a voter has to expect in a given electoral district with district magnitude M. He closely follows the Duvergerian

logic that voters should strategically desert all other parties that are not expected to be viable to win a district seat. Evidence to support these claims are based on studying the number of parties that compete successfully at the district level in British. Columbian. and Japanese elections (Cox and Shugart, 1996; Cox, 1997). A more direct test for the presence of Duverger's psychological factor - and hence for strategic desertion - is provided in studies using German district-level data (Cox, 1997; Bawn, 1999). For instance, Cox (1997) regresses the 'desertion rate' among voters of the two small parties FDP and Greens - the difference between their (national) party list vote and their (district-level) candidate vote share in a given district - on the margin of the district race. In close district races, we should expect a higher desertion rate and therefore more strategic votes because strategic FDP or Green voters should feel a stronger incentive not to waste their candidate votes. They could make a difference and help elect the local candidate of the larger coalition partner. In fact, using district-level data from federal elections in 1987 and 1990, Cox does find that the desertion rate among FDP and Green voters is significantly higher as the district race gets closer. Bawn (1999) also employs the desertion-rate concept, but with a different dependent variable, using district-level data from six federal elections between 1969 and 1987. Controlling for incumbency effects, she finds that the desertion rate in favor of major-party candidates increases as a district race becomes closer. The Duvergerian logic of avoiding a wasted vote thus has robust support. For example, the empirical implication that parties that did not win a seat in the last election and therefore will not be considered as viable competitors in the next election has been supported by studies using district-level data from Portugal (Gschwend, 2007), Finland (Gschwend and Stoiber, 2012), and Spain (Lago 2008). Without going into extensive detail, research on plurality systems provides considerable evidence for strategic voting (e.g. Alvarez and Nagler, 2000; Blais and Nadeau, 1996; Johnston and Pattie, 1991; Lanoue and Bowler, 1992; Evans and Heath, 1993; Heath, 1991; Galbraith and Rae, 1989; Abramson et al., 1992; Cain 1978, Niemi et al., 1993; Fujiwara, 2011; Hall and Snyder, 2015). In short, the basic model of strategic voting is well established.

### PREFERENCES ARE NOT ENOUGH: ELECTORAL EXPECTATIONS AS SECOND CRUCIAL INGREDIENT

Electoral expectations are crucial for strategic voting because voters have to weight their preferences for different parties or candidates by their electoral expectations to derive their expected utility. Expectations determine to a large extent when defection from the most preferred is warranted.

There are two main processes by which voters are thought to derive expectations. First, politically engaged voters pay attention to political developments, especially during election campaigns, and follow the discussions about the

success of parties and candidates in the media (widely defined), most notably based on pre-election polls and, in multiparty systems, about potential coalition governments. It seems clear, however, that this process can only have an impact on the decision calculus of attentive and therefore politically aware and informed voters. But even less attentive voters do not start with a blank slate in the voting booth. Even voters who do not follow a campaign very closely seem to form expectations, for example by adopting an electoral history heuristic. As 'cognitive misers' (Fiske and Taylor, 1991), individuals frequently employ heuristics to simplify their decision-making processes. Voters look back at previous elections. Even if they cannot recall the precise results of these elections, they can easily form beliefs about the rough outlines of the electoral landscape, such as which parties are large and small, how competitive or close the election might be, or who the winners and losers are expected to be. Inferences based on these beliefs need not be particularly accurate. It is sufficient that voters have an idea about who the strong contenders are or which coalitions are typically formed. Both processes, full attention or the reliance on heuristics, help voters to cope with the uncertainty about an election outcome and help to generate expectations about the success of candidates, parties, and coalitions. This process can be viewed as Bayesian updating because voters either create new expectations or update their prior beliefs about the outcome of an election. Formal theorists employ a similar argument to make the assumption of 'rational expectations' more plausible (Cox, 1997; Cox and Shugart, 1996; Fey, 1997). Experimental evidence for example supports the notion that the electoral history heuristic facilitates the formation of consistent expectations (Forsythe et al., 1993).

There is another reason why expectations are so crucial. Only they can turn a defection from a preferred party into a strategic vote decision. There are, after all, many conceivable reasons why voters deviate from their most preferred party or candidate, often for expressive reasons. For instance, voters might want to voice their protest or signal single-issue preferences. Voters in two-vote systems might also want to split their votes between the parties of their most preferred coalition. In all these instances, voters do not deviate from their most preferred party because they expect a vote for a different option to have a more effective impact on the outcome of the election. Such voters do not behave strategically.

Even though we have established the central role of electoral expectations for strategic voting by now, it is also quite obvious that the classic understanding of expectations about the election outcome is very limited. Voters seem to merely think about which party or candidate is viable and able to win representation. In plurality elections, common in the USA and the UK, this assumption works quite well, and it will also apply to multi-member district systems where viable candidates or parties can win representation by gaining one of the district seats. But, as we will show in the next section, this understanding of strategic voting is very restrictive because it ignores other aspects of an election outcome, in particular the need for coalition governments in multiparty systems. To make this shift in

perspective very salient, we will use the term strategic coalition voting in the following discussion.

## DIFFERENT ELECTORAL SYSTEMS, DIFFERENT INCENTIVES, DIFFERENT STRATEGIES: THE COMPLEX MOTIVATIONS OF STRATEGIC COALITION VOTING

Strategic voting is about more than just trying to avoid wasting one's vote, and the beneficiaries are not necessarily a few large parties. Different electoral contexts and rules allow – in fact require – voters to form expectations about different aspects that characterize the political decision-making process before, during, and after an election. It is about much more than the mere representation of a party or candidate in parliament. For example, SMD and PR systems can induce very different motivations and require voters to employ different strategies to translate their political preferences into the most optimal decision and election outcome. One voter might merely anticipate the outcome of an election in terms of whether a certain party will gain representation in parliament while another might consider how the anticipated election outcome will affect the coalition government formation process. The interplay of specific characteristics of an electoral and party system and the individual preferences and interests of voters add enormous complexity to the strategic voting process.

To clarify the basic motivation, we conduct another thought experiment with our supporter of small party L. If this supporter were eligible to vote in a UK general election, then she would be primarily motivated to anticipate the outcome of the local SMD race in order to figure out whether L is viable and competitive in this district or merely a wasted vote. However, if the same voter were eligible to vote in the Tweede Kamer elections in the Netherlands, a national contest in a PR system, the incentives would be different. Whether or not L wins representation is definitely not the most salient question on the voter's mind because even small parties gain representation in a PR election with essentially no minimum vote threshold. Our hypothetical voter is much more likely to try to anticipate the government formation process and cast her vote strategically, for instance, by supporting the most preferred party among those that are likely to join the new coalition government, if her most preferred party is not among them. Incidentally, the 'winner' in such an election is not necessarily the largest party but might very well be one of the small parties that will join the coalition. In both examples, our hypothetical voter tries to anticipate the election outcome, but the particular aspect she focuses on is quite different in different political contexts.

While voters form expectations about the election outcome in order to behave strategically, the concept 'election outcome' is not always determined by who will likely win the election. An election (night) outcome might merely be the starting point of a government formation process involving negotiations among

multiple parties that will eventually form a coalition government, which in turn determines the policies for years to come. And if this is not already complicated enough, some voters might also consider as part of the election outcome whether some parties get represented in parliament. Specific institutional rules and aspects such as a minimum vote threshold will affect supporters of small parties differently than supporters of large parties – primarily a question of representation for the former and a question of coalition formation for the latter.

This initial discussion is, in one sense, bad news. The current literature on strategic voting has not been able to develop a single and universal (formal) model that can capture all these different conditions and aspects. Instead, we find various attempts to identify certain conditions under which strategic voting can be expected and tested. On a more positive note, there have been a number of attempts to offer more systematic assessments of how strategic voting works under the given and specific circumstances. We outline two approaches that capture the logic of strategic voting more systematically, one using a formal process logic of rational voters and the other a more psychological goal-based logic that highlights the main motivations and strategies of strategic voting. These are not mutually exclusive explanations but should rather be seen as complementary.

#### A formal process logic: translating a vote into policy

The classic case was simple. A strategic voter in an SMD election forms expectations about the outcome of the 'local' election and thus the representation of a candidate (or party or issue) in parliament. The winner will affect the legislative process, and a vote for a marginal candidate is wasted. However, if we realize that most Western democracies are parliamentary systems with coalition governments, this approach to strategic voting is rather restrictive and misses many of the aspects mentioned above.

At the same time, moving from classic and simple strategic voting in SMDs to strategic coalition voting in multiparty systems with proportional representation, minimum vote thresholds, and coalition governments creates a number of conceptual and theoretical challenges, starting with a clear and more comprehensive definition of strategic coalition voting. The (mixed) existing empirical evidence only helps to a limited degree. Different approaches to strategic voting usually address only specific voting strategies. The most useful existing framework is offered by Cox (1997) who differentiates two stages in which votes are translated into (optimal) policy output, seat maximization and portfolio maximization. A good case can be made to differentiate these steps from vote to policy even further by also including the stage of legislative behavior (Linhart, 2009; Linhart and Huber, 2009).

Thus, in addition to representation, the policies that will be implemented by the next government are the second key aspect to account for. Which policy is going to be implemented depends, most importantly, on who is in government and, specifically, on who controls a majority in the legislature (Austen-Smith and Banks, 1988; Cho, 2014; Indridason, 2011; Kedar, 2011; Linhart, 2009). Table 16.1 summarizes the most important steps or stages as a sequential decision-making process from the pre-electoral campaign to post-electoral government formation and the subsequent legislative process. Under ideal circumstances, a strategic voter would consider all information to anticipate the outcomes of these decision steps and, using backward induction, would determine her optimal vote decision. Such decision processes are difficult to capture in formal models because formal solutions for multiparty models with coalition governments and many equilibria are very difficult to obtain. For more than a conceptual outline, the interested reader might consult the formal treatments by Linhart (2009), Cho (2014), Duch, May, and Armstrong (2010), and Indridason (2011).

The starting point is the information available during election campaigns, most notably the party positions on relevant policies, the strengths of the parties in pre-electoral polls, and any pre-electoral coalition signals by parties, journalists, and other experts that can help to narrow down the possible election outcomes and government formation. Such a voter would use this information to anticipate the likely seat distribution after the election, the subsequent government formation process (including the selection of a formateur as well as negotiations of potential coalition partners and over the coalition portfolio or policies), and the eventual policy output of the subsequent legislative process (Austen-Smith and Banks, 1988; Bargsted and Kedar, 2009; Cho, 2014; Indridason, 2011; Linhart, 2009). Depending on the political system, the policy output might also depend on other veto players such as a second chamber (especially in federal systems) or a president.

Thinking about the election outcome in terms of policy that will eventually get implemented allows voters to form expectations about each step in this chain of action. This will result in a variety of different strategies that we will introduce in the next section. It is important to keep two points in mind. First, only a small

Table 16.1 Sequential decision-making process and formation of expectations by strategic voters

Stage:	Campaign	Election Result	Government Formation	Legislative Process
Factors:	<ul><li>Party Positions</li><li>Polls (Party Strength)</li><li>Coalition Signals</li></ul>	– Seat Distribution	- Formateur Selection - Government (Coalition Parties) - Government Portfolio	– Veto Players – Policy Output

→ Sequential Decision-Making Process →

<sup>←</sup> Voter Expectations (anticipation by backward induction) ←

number of voters will usually find themselves in a situation that provides the appropriate incentives and opportunities for strategic voting (e.g. Alvarez et al., 2006). In most cases, a sincere vote is also the optimal vote. Second, strategic voting is based on a combination and interplay of individual preferences and expectations on one side and the incentives provided by the institutional context on the other – as far as recognized and perceived by the voter. This is difficult to capture in a single formula and formal model and implies a fairly sophisticated and instrumental decision-making process. Including three or more stages, however, makes the assumed decision process extremely complex and thus rather unlikely (in fact, virtually impossible) to reflect any actual decision making by voters – some political scientists exempted. A more straightforward decision logic is necessary.

### A psychological goal-based logic: a typology of motivations and strategies

Given these challenges, our goal here is to offer a conceptual classification of common motivations and plausible strategies for strategic coalition voting at a very general level that are not specific to particular countries or elections. It is useful to distinguish four major motivations for strategic voting and a number of specific decision strategies to accomplish the given and predominant electoral goal. The first motivation is universal for all electoral systems and the classic motivation for strategic voting per se, avoiding a wasted vote for a party or candidate that has no chance of being represented in the next parliament. In such a situation, a strategic voter realizes that, in order to have an electoral impact, it is more useful to cast the ballot for one of the viable parties. The next two motivations are specific for strategic coalition voting because they aim at the next coalition government. The focus might be on coalition composition, that is, the parties that will become members of the next coalition government. A good example is the rental vote (or threshold insurance) strategy well known in Austria, Germany, and Sweden when supporters of a major party cast their vote for a preferred small coalition partner who is in danger of falling short of the electoral threshold (Fredén, 2014; Gschwend, 2007; Gschwend et al., 2016; Shikano et al., 2009; Meffert and Gschwend, 2010). It is also possible, with two or more small parties competing for a place in the next coalition, to strengthen one of the parties in order to give it a competitive advantage over the other (coalition) parties (Irwin and Van Holsteyn, 2012).

But even if the next coalition government is more or less certain, a strategic coalition voter might still try to influence the *coalition portfolio*, that is, the strength or weight of the parties within an expected coalition that determine the policies pursued by the coalition (Aldrich et al., 2005). The impact on policy might be small but nevertheless beneficial for a strategic voter. The fourth and final motivation assumes that a voter takes the larger institutional context of the

policy-making process into account and follows a *checks-and-balances* logic by taking the political control of different chambers of parliament or the presidency and parliament into account. Voters concerned about checks and balances might for example engage in *strategic balancing* and vote in a way that prevents a single party or coalition controlling all the major institutions (e.g. Geer et al., 2004; Gschwend and Leuffen, 2005) if the political consequences in terms of policy output are seen as too extreme.

These four major motivations cover four distinct and principal reasons why strategic voters might defect from their preferred party in order to have an effect on the next government. This classification is conceptual and not based on systematic evidence but rather should help future research. Besides these major goals, the existing research has identified a number of specific strategic coalition voting strategies that voters might use to accomplish these goals (summarized in Table 16.2).

The first strategy is to defect from a losing party in order to avoid a wasted vote. The emphasis is on cutting losses and not on gaining benefits, even though the latter is the implicit consequence of such a strategic vote. Under proportional representation, most votes count toward the distribution of seats and are thus not wasted per se. The only fairly clear and obvious exceptions are parties that are certain to fail the minimum vote threshold for seats in parliament. Here, the classic wasted vote argument works very well, at least in theory. It strongly implies that short-term instrumental rational voters should defect from very small parties if they want to affect the formation of the next government.

If a voter is really concerned about the next coalition government, she will have to take coalitions into account, no matter the size of the most preferred party or the ideological position of the voter. In other words, if the most preferred party is unlikely to play a role in the next coalition or affect government formation

Table 16.2 Strategic coalition voting motivations and strategies

	Motivation					
	Avoiding a wasted vote	Coalition Composition (Parties)	Coalition Portfolio (Policy)	Checks- and- balances		
Strategy						
- Defection from losing party	X					
- Rental vote/threshold insurance		X		Χ		
<ul> <li>Destructive vote</li> </ul>		X		Χ		
- Strengthen expected coalition party		X	Χ			
Formateur selection/strategic sequencing		X	Χ			
- Strategic balancing			X	Х		
- Strategic abstention		X	X	Х		

more indirectly, a strategic voter should rather vote for a party that makes the most acceptable among the viable coalitions more likely. Such a *coalition voting* strategy is thus the most general statement of strategic coalition voting.

As already mentioned above, a well-known strategy is threshold insurance. when a voter, usually a supporter of a strong major party, casts a rental vote for a preferred small coalition partner, which is in danger of falling short of the minimum vote threshold. A variation of this strategy is a destructive vote when a voter can make a more beneficial coalition government more likely by weakening her preferred party. Such a scenario is possible when polls and coalition signals suggest a close competition between a left-wing and a right-wing coalition. Neither option is attractive to a centrist voter who would prefer a centrist government. This, however, requires that the 'extreme' coalitions do not succeed and moderate but reluctant parties are forced to form a centrist coalition. To accomplish this, our centrist voter might opt to strengthen a strongly disliked and extreme 'pariah' party that takes enough seats away from the 'extreme' coalitions. An example is a vote for the far-left Die Linke in the 2005 German election in order to make a centrist coalition between Christian Democrats (CDU) and Social Democrats (SPD) more likely by undermining the chances of the more traditional center-left (SPD and Greens) and center-right (CDU and liberal FDP) coalitions (see Linhart, 2009; Huber et al., 2009). Both rental vote and destructive vote strategies aim at changing coalition parties but might also serve the goal of checks-and-balances.

Even if a specific coalition is fairly certain to win the election, strategic coalition voting can make sense for voters whose preferred party is not among the coalition members (Aldrich et al, 2005). As long as the electoral strength of a party does influence its weight in the coalition and its influence over coalition policy, a vote for a coalition member party might directly influence coalition policy. Bargsted and Kedar (2009) suggest such behavior for Israel, at least for supporters of moderate parties. The strategy of strengthening an expected coalition party follows primarily the goal of strengthening an expected member of the next coalition in the coalition formation process, leading to a more desirable coalition portfolio and beneficial policy outcomes.

In the case where the status of the largest party gives it a formateur status, strengthening a competitive large party can be a useful strategy to secure its crucial role during coalition formation, also called strategic sequencing by Cox (1997). A voter more concerned about a single party (or coalition) controlling all institutions of government might opt for *strategic balancing*, trying to secure shared control of the major institutions.

Last but not least, even *strategic abstention* might be an optimal strategy under some circumstances. The logic is similar to the 'destructive' version of threshold insurance: a weakening of the preferred party can make a preferred coalition government more likely. In this case, the reason for abstention differs radically from other, more common reasons for such behavior such as a lack of political interest,

political cynicism, or protest. It is entirely based on the expectation of how the next government will be formed.

A reader might note the absence of ticket splitting in this discussion, a decision possible in mixed-electoral systems that combine for example a (national) party list vote with a (local) candidate vote. The reason is quite simple. Merely splitting one's vote between a candidate of one party and a different party on the party list does not say anything about the reasons for such a decision. As Gschwend (2007) shows, several different strategies can lead to the observationally equivalent split-ticket patterns. But they might also reflect simply expressive considerations such as support for a well-liked candidate from an otherwise disliked party. Thus, we do not count ticket splitting *per se* as a specific strategy of strategic coalition voting. If ticket splitting is used strategically, the driving motivation is almost certainly already covered by one of the motivations and strategies discussed above.

This list of strategic coalition voting strategies does not claim to be exhaustive. The complexity of coalition formation in multiparty systems creates opportunities for many different, often context-specific strategies that are impossible to enumerate here. The strategies discussed above are mentioned in the literature or follow a compelling logic, but they are only a plausible subset of all possible strategies. It is also important to keep in mind that these strategies and goals are often not clearly distinct but rather overlap and thus are difficult to distinguish empirically.

### RESEARCH DESIGNS AND METHODS TO STUDY STRATEGIC VOTING

Strategic voting is studied in quite different ways. In the following section we will highlight the advantages and disadvantages of different research designs to study strategic voting such as survey research, experimental designs (i.e. lab and field experiments), simulations, and studies using official statistics (e.g. election returns). The main focus will be on how these different designs can be used to identify (with direct or indirect measurements) and analyze strategic voting in mass elections. Given that there is so far no consensus on how strategic voting should be conceptualized, it should not come as a surprise that there is not even a universally accepted measurement strategy.

#### Four major approaches to measure strategic voting

Following Alvarez and Nagler (2000), Blais, Young, and Turcotte (2005), and Artabe and Gardeazabal (2014), we can distinguish at least four different approaches to measure strategic voting: (1) the aggregate inference approach, (2) the self-reporting or direct approach, (3) the inference or indirect approach,

and (4) the counterfactual approach. Researchers following the aggregate inference approach use aggregate election returns to identify certain split-ticket patterns, changes in vote shares (see Muller and Page, 2015 for a nifty nonparametric approach), leveraging of different incentive structures in concurrent elections (Lago, 2011; Hall and Snyder, 2015) and natural experiments (Spenkuch, 2015). changes from first- to second-round elections (Kiss, 2015), desertion rates across ballot types, or to show the impact of close elections (using concepts such as the district margin) to study strategic voting at the electoral-district level (Cox, 1997; Spafford, 1972; Cain, 1978; Galbraith and Rae, 1989; Johnston and Pattie, 1991; Gschwend, 2004: Chapter 5). Official election statistics are a reliable and often readily available data source, but without any information about individual-level behavior. This poses a major challenge for testing strategic voting, essentially a micro-level theory about individual behavior. Any attempt to use aggregate-level data for this purpose immediately raises the so-called ecological inference problem (Achen and Shively, 1995; King, 1997; Gschwend, 2004: Chapter 4). At best, it is possible to identify aggregate patterns that correspond to theoretically expected patterns assuming individual-level strategic voting, a highly inferential and indirect, but sometimes very useful approach.

Researchers following the *self-reporting* or *direct* approach use survey questions that directly ask respondents about their reasons for casting their vote. For instance, the inventory of the British Election Study asks respondents why they voted the way they did, offering explicitly the option 'I really preferred another party but it had no chance of winning in this constituency'. British election researchers are very fond of this question and convinced about its usefulness (Fisher, 2004; Heath, 1991; Niemi et al., 1992; Evans and Heath, 1993). Some caution about the validity and reliability of this measure is warranted because respondents are asked post hoc to justify and explain their earlier behavior, a task that easily elicits response biases (faulty memories, rationalizations, and misperceptions). While this question fits the British SMD context quite well, this measure becomes highly problematic and ambiguous when applied to the different forms of strategic coalition voting outlined above. Consequently, this measure has not been widely used outside the UK.

Researchers following the *inference* or *indirect* approach identify strategic voters by using different survey items including party preferences, vote decisions (intended or cast), but also voter expectations about relevant aspects such as election outcomes or likely coalitions (e.g. Alvarez and Nagler, 2000; Elff, 2014; Herrmann and Pappi, 2008; Herrmann, 2014; Lago, 2008, Shikano et al., 2009). This approach offers the closest match to theoretical models of strategic voting. But even here some caution is warranted. While any defection from the preferred party is often considered strategic, a more careful operationalization of the theory of strategic voting would have to take the expectations into account in order to make a strategic vote out of a merely 'insincere' vote. Therefore, it is conceptually important to think *a priori* about the context in which a certain type

of voter is motivated to employ a particular strategy (Alvarez et al., 2006). Not every voter will always be motivated to use every conceivable strategy. Think about our hypothetical supporter of L from the example at the beginning of this chapter. If L is expected to be viable to win the district race, our supporter will have no incentive or motivation to vote strategically. The sincere vote counts and will not be wasted. Using this insight, Meffert and Gschwend (2010), using data from the 2006 general election in Austria, a priori define different decision contexts that might provide incentives to behave strategically for certain subsets of the voter population in order to identify whether voters employ certain strategies. Another caveat is that vote choices themselves are not sufficient to infer whether voters behave strategically. Scholars need to assume that voters correctly perceive the particular competitive context and react in the same way to it. Recently Elff (2014) developed a finite mixture model that allows this assumption to be relaxed.

Researchers can also combine features of both approaches using a so-called counterfactual approach, pioneered by Artabe and Gardeazabal (2014). They start with survey items to identify two different groups of voters; sincere voters using the inference approach and seemingly strategic voters identified in the tradition of the self-reporting methodology. In the next step, they fit a sincere vote choice model to only the subset of previously identified sincere voters. Using the estimated coefficients from this model, they then generate out-of-sample vote-choice predictions for the subset of seemingly strategic voters. This yields a counterfactual prediction: how each seemingly strategic voter would have voted if she were to behave like a sincere voter. Finally, the counterfactual approach classifies only those seemingly strategic voters as strategic if their self-reported vote choice turns out to be different from the predicted counterfactual vote choice. It should be noted that the degree of covariate balance between the a priori identified groups of sincere and seemingly strategic voters is crucially important because the groups are self-selected and not randomly assigned. Ideally, the counterfactual approach should be employed to a selected subset of sincere voters with covariate values similar to those of the strategic voters. The major advantage of the counterfactual approach is that the classification of a strategic voter does not rely on problematic measures to assess how voters form expectations about the outcome of an election.

### Measuring expectations

In order to assess the impact of voters' expectations about the success of parties and candidates, there are generally two conceivable measurement strategies. First, some scholars ask respondents directly about the prospects of parties or candidates in that election. Abramson et al. (1992), for instance, investigate strategic voting on Super Tuesday in the 1988 presidential primaries. They measure the probability that a given candidate will get the nomination via a normalization

procedure applied to a hundred-point scale. Blais and Nadeau (1996) also rely on subjective measures for voter expectations using the 1988 Canadian Election Study. The main problem with this approach is that subjective measures are prone to projection effects, that is, voters are wishful thinkers who perceive their favored candidates as having better chances to win than others (Bartels, 1988; Brady and Johnston, 1987; Meffert et al., 2011). One way to deal with this problem is to model projection effects directly using a systems-of-equations approach. Abramson, Aldrich, Paolino and Rohde (1992) follow this strategy and purge their candidate probability scores to win nomination from projection biases. This strategy requires strong assumptions about the factors that are presumably not contaminated with projection effects in order to model them. A more promising way to deal with projection is to simply design instruments that minimize such effects. Pappi and Thurner (2002), for instance, employ a 4-point Likert scale to measure voters' expectation of whether minor parties in Germany will gain seats in the next election. Similar measures have become part of election study inventories in various countries (e.g. Germany, Austria, Sweden) in recent years.

A second measurement strategy is to employ 'objective' measures of voter expectations. Such context variables are often based on actual election returns (Black, 1978, 1980; Cain, 1978). Alvarez and Nagler (2000) provide an interesting application of this strategy with data from the British general election in 1987. The basic crux of this approach is to construct a vote choice model for sincere voting in a multiparty setting based on individual-level data, and to add the district-level results of the previous election as a measure for the 'expected' closeness of the district race. Indeed, they find that third-party supporters are more likely to desert their party if they 'expect' a competitive district race. Some scholars prefer clearly exogenous measures for voter expectations and employ district results of the previous election (e.g. Alvarez and Nagler, 2000; Elff, 2014). Presumably, such knowledge is readily available to voters. Other scholars prefer to employ results of the current election (e.g. Gschwend, 2007; Guinjoan et al., 2014; Herrmann and Pappi, 2008) because they better approximate preelection polls in that district, which often do not exist. Such district-level polls are by no means a standard outside the UK. If voters are expected to form expectations about the government formation process, the 'objective' history of coalitions between parties and actual coalition signals provides valuable information for strategic voters (Armstrong and Duch, 2010; Duch et al., 2010; Gschwend et al., 2017; Irwin and van Holsteyn, 2012).

### Testing the causal mechanisms of strategic voting: experimental approaches

The research covered so far relies for the most part on either survey data (mostly pre-election studies if expectations measures about the outcome of an election

are used) or on official statistics such as district-level election returns, or a combination of both types of data. Both are not ideal to establish causal relationships at the individual level. Thus, we turn to two alternatives, experiments and simulations, and their relative advantages and disadvantages to investigate strategic voting.

When studying the conditions under which voters employ a particular strategy and deviate from their most preferred party to cast a strategic vote, scholars are interested in testing the effects of expectations on vote choice. We know that voters use heuristics and contextual cues such as polls, previous election results, and coalition signals to form expectations about various aspects of the election outcome. This raises a number of methodological issues. The vast majority of studies about strategic voting at the individual level are based on cross-sectional surveys, conducted before or after a single election. This makes a causal test more or less impossible. This is a particularly serious problem when the relationship of preferences and expectations is unclear and possibly reciprocal. Second, looking at a single election does not usually provide much variation in the polls and coalition signals. Both are fairly stable and consistent before elections, and every voter will receive more or less the same information. As a consequence, it is nearly impossible to establish a causal link from exposure to polls and other signals to political behavior. Even if objective conditions favoring strategic voting exist, they might only affect a small part of the electorate. In short, it is very difficult to establish a clear link between cause and effect.

As an alternative, experiments can overcome the problem of establishing causality by clearly separating cause and effect, giving this approach high internal validity (see Johns, this *Handbook*, Volume 2, Chapter 39). They allow for a careful construction of seemingly objective conditions such as a close election. Moreover, when the key explanatory factor lacks variance, that is, when no observable data to test a theory are available, experiments can provide an elegant solution for this problem. Experimental designs enable the researcher to create the necessary variance within the explanatory variable by manipulating it, i.e. by providing information for the treatment group and withholding it for the control group.

Experiments can take many different shapes and forms. The settings can range from a tightly controlled lab environment over a real-world field setting to (representative) surveys. Following McDermott (2002), we distinguish two traditions of experimental designs, experiments done in the economic tradition or in the psychological tradition. Experiments in the behavioral economic tradition tend to confront participants with abstract, context-free, and transparent decision scenarios. The information made available to participants might be incomplete, creating uncertainty, but it is never deceptive or false. In order to rule out confounding influences, preferences or expectations are induced and assigned by the experimenter and not based on existing preferences of participants. For instance, parties will not have familiar labels but have abstract names because participants will not have developed a strong attachment to, say, party L. This gives the experimenter

in economic experiments a very high degree of control. The abstract nature of these experiments and the induced preferences and expectations make it possible to assess the quality of decision making in a straightforward manner. Because the experimenter knows the correct decision, it is very easy to determine optimal and wrong decisions. Participants experience success and failure as monetary gains and losses.

Previous experiments have tested the impact of different decision rules (Cherry and Kroll, 2003; Forsythe et al., 1996; Rapoport et al., 1991; Yuval and Herne, 2005; Gerber et al., 1998), pre-election polls or similar information about preference distributions (Eckel and Holt, 1989; Fisher and Myatt, 2002; Forsythe et al., 1993, 1996; Plott, 1991; Rich, 2015), voting histories (Forsythe et al., 1993; Williams, 1991), Duverger's law (Forsythe et al., 1993, 1996), and sequential or repeated voting (Eckel and Holt, 1989; Morton and Williams, 1999; Williams, 1991), sometimes framed as a primary or general election and sometimes as a small group or committee decision-making task. But, for the most part, these experiments have focused on a very limited set of choices, usually three candidates or parties. The advantage of these 'simple' decision scenarios is that they usually have formal solutions and known equilibria that allow a straightforward assessment of optimal decision making.

Multiparty setups or coalition governments have been addressed in only a few experiments. Using economic experiments, several studies (e.g. McCuen and Morton, 2010; Meffert and Gschwend, 2007, 2009; Linhart and Tepe, 2015) suggest that, if voters are in a strategic decision mode and face decision scenarios that provide clear incentives for strategic voting, then a majority of voters appears to be able to engage in strategic voting, at least as long as the decision context is fairly transparent. Blais, St-Vincent, Pilet, and Treibich (2016) show in their laboratory experiment that participants need to rely on electoral history as a heuristic in order to cast a strategic vote. Moreover, in one experiment by Goodin, Güth, and Sausgruber (2008) some participants play not only the role of a voter but also function as a party leader to include the coalition formation stage as well.

Experiments in the social psychological tradition try to create realistic decision scenarios, not in terms of mundane realism, but in the sense that they rely on pre-existing preferences of the participants and try to pose decision scenarios that capture the attention and involvement of the participants (McDermott, 2002). A key difference to economic experiments is the frequent use of deception for experimental manipulations. The information given to participants is optimized to create a convincing manipulation, not to provide objective and verifiable facts. From an ethical perspective, the use of deception makes it mandatory that participants are debriefed at the end of the study. Psychological experiments of electoral decision making rely frequently on fictitious scenarios in order to control the amount and content of information available to participants. However, it is very common to use existing parties and existing party preferences, relinquishing much more control than economic experimenters do.

Meffert and Gschwend (2011) embedded such an experiment in two actual state election campaigns in Germany, to test the effects of coalition signals and poll information on voting behavior for real parties in the laboratory. The decision scenario presented to participants was thus highly realistic, and most information provided to participants was taken from the actual party platforms. A crucial advantage of experiments in the psychological tradition is the possibility to tap into and use the actual party preferences of participants, making a strategic voting decision psychologically more 'costly' compared with purely fictional parties and campaigns.

Laboratory experiments usually use convenience samples that pose a challenge to external validity, the extent to which the results can be generalized to the world outside. In this respect, cross-sectional surveys with a general population sample have a clear advantage over laboratory experiments, even if they fall short when assessing causal relationships. Survey experiments can often combine the advantages of randomized manipulations and control of laboratory experiments (internal validity) with the representative nature of general population surveys (external validity), Fredén (2013), for instance, uses a survey experiment to systematically manipulate coalition signals and poll results in order to estimate their effects on the probability of voting strategically. Irwin and Van Holsteyn (2008, 2012) operationalized coalition signals as part of vignettes in a survey experiment in the Netherlands. These vignettes presented respondents with hypothetical but plausible results of opinion polls and their consequences for the formation of the next coalition government. Using a similar survey experimental design, Gschwend, Meffert, and Stoetzer (2017) show that coalition signals increase the importance of coalition considerations and, at the same time, decrease the importance of party considerations in voters' utility function. Given the different advantages and disadvantages, experiments and surveys complement each other and both have and will continue to make useful contributions to the study of strategic voting. Both should have their place in the toolbox of the discerning researcher

### Testing formal mechanisms and consequences of strategic voting: simulations

Other tools that have become more popular in recent years are agent-based simulations and computational models. They are very common in the hard sciences to study problems that are too difficult to solve analytically. The same applies to formal models of strategic coalition voting because the identification of clear equilibria in realistic situations of mass elections with several parties, coalition formation rules, and voting thresholds has remained elusive so far. Simulations can help to establish how voters (or parties) behave if they are endowed with certain attributes. This approach allows the researcher to derive implications about what would happen given a certain mechanism. By comparing the

simulation results with observable outcomes, one can make an argument about whether a certain mechanism seems to operate in the real world. Shikano (2009) uses simulations to see what would happen to voters, and ultimately to a party system, in a mixed electoral system if voters simply take the national result as a heuristic to form their expectation about who is viable at the electoral-district level. By comparing the outcome to observable patterns of party competition in Germany, he finds evidence that some voters strategically desert their most preferred party because they formed incorrect expectations about the election outcome in the electoral district. Clough (2007) similarly addresses the role of information in addition to institutional characteristics to predict under what conditions voters are likely to avoid wasting their vote on hopeless parties or candidates. Voters need information to form expectations. The results underline that, without information through polls or the electoral history heuristic, voters cannot see who is viable and therefore do not systematically desert minor parties. Finally, Meffert (2015) uses simulations to assess the mechanisms and how often various voting strategies maximize a voter's expected utility in a (highly simplified) multiparty system with proportional representation, minimum vote thresholds, and coalition governments. The results indicate that such a political system in fact provides many different opportunities for strategic voting, contrary to what the traditional literature based on Duverger suggests. While theoretically expected, it often remains a challenge to obtain empirical evidence on whether real voters actually use such strategies. As with aggregate inference approaches, the link to observable individual-level behavior is weak.

#### STRATEGIC VOTING, FOR BETTER OR WORSE, IS HERE TO STAY

There are some basic messages we want the reader to take home from this chapter. First, strategic voting is about much more than it once seemed, and certainly more than merely acknowledging that some voters cast their vote for a less preferred option on the ballot in order to avoid wasting their vote. Depending on a voter's decision context and her preferences for the options on the ballot, there might be several different features that characterize the election outcome she forms expectations about. Most prominent is the fact that in most countries a coalition of several parties is needed to form a government. The anticipation of who will form the new government is likely to introduce expectations that differ from considerations of whether a certain party or candidate is viable to win representation. In order to maximize their expected utility from voting, strategic voters deviate from their most preferred option because of their expectations. Consequently, for testing observable implications of strategic voting we should conceptualize voters to have a utility or vote function that implies that the effect of preferences is conditional on expectations. Not all studies do that yet.

Second, despite all the complexity of strategic coalition voting, especially in multiparty systems, voters can do it – even without obtaining a PhD first. Strategic voters can maximize their expected utility from voting by relying on cues, heuristics, and coalition signals to simplify the decision task. At the same time, it is also true that strategic voting is not a mass phenomenon, either because many voters do not let their expectations moderate their preferences and rather vote expressively or because the electoral context does not provide incentives for strategic voting. Any time the most preferred party is viable and competitive, there is simply no incentive to vote for a different party short of trying to influence the composition of a coalition government.

Third, although the number of voters who deviate from their most preferred party because of some expectation about the election outcome might be low, strategic voting has undoubtedly important real-world consequences. Even though a few strategic voters might change who is winning in a particular district, it is hard to assess in which electoral districts the impact of strategic voting might have changed the outcome of the district race. Standard survey designs do not allow us to compare preferences and voting behavior of more than a handful of individuals in each electoral district. Typically, this is not enough to reliably estimate the number of strategic voters at the district level, although new approaches using small-area estimation techniques get around that problem (Hermann et al., 2016). Moreover, actual vote shares of parties at the national level are crucially important when party leaders negotiate a new coalition government that needs a majority in parliament. When looking at election results in multiparty systems, there are countless examples that two percentage points systematically cast for certain parties and withheld from other parties might lead to different coalition governments, and therefore completely change the outcome of the election. By taking the role of coalitions in post-electoral bargaining processes and especially voters' expectation of how they will play out more seriously, this chapter should remind scholars that the electoral rules in PR systems provide plenty of opportunities for strategic voting, more than is commonly assumed. Moreover, these findings also have important implications for the transformation and consolidation process, particularly for newly established democracies. Strategic voting does not automatically facilitate the development of a stable party system because not all strategies favor large parties over marginal parties. The evidence reviewed in this chapter suggests that small parties can also benefit from strategic voting and thus might facilitate rather than prevent the fragmentation of a party system – something that might be of interest to electoral engineers when drafting new election laws.

Fourth, major challenges remain. Theoretically, the full inventory of strategic coalition voting is far from established, and formal models that can better capture the high complexity of the decision-making process are needed. Methodologically, the measurement of strategic voting especially with observed data such as surveys remains a challenge. Theory and research on strategic voting

are actively developed and will continue to bring new insights and answers to old questions.

Finally, we turn to more normative aspects of strategic voting that we have conveniently neglected so far. Behaving strategically means by definition that voters support a party that does not reflect their highest preference. The fact that strategic voting decisions are not only based on preferences but also voters' expectations about the election outcome raises concerns for many people. We will address two of the most prominent criticisms in the remainder of this chapter. The first criticism of strategic voting goes as follows:

1 Strategic voting is bad for democracy because voters' expectations can easily be manipulated.

Strategic voting requires voters to form expectations about particular aspects of the election outcome and to include this information in their decision-making process. Depending on those assumptions, voters eventually decide to cast a vote for a party other than their most-preferred one. In the previous sections, we have pointed out that there are various sources of information voters rely on in order to form their expectations about the election outcome. This information will not always be correct. We agree with observers who warn us that the media providing citizens with such information could abuse their power by trying to manipulate the election outcome. But it only works if very few and exclusive sources provide voters with the necessary information. For national election, this is a very unlikely scenario. National polls are typically not exclusively done by one firm or sponsored by only one customer. There seems to be a healthy competition between polling firms, at least in advanced and highly developed democracies. Polls are not the only source of information voters can rely on. As we have shown above, there is rather evidence that voters or journalists seem to draw on other heuristics such as the electoral history (Forsythe et al., 1993; Gschwend, 2004, 2007; Lago, 2008) to form expectations. Even if polls are not available one can still rely on the election results of the last election (that are readily available) in order to form expectations about the likely outcome in a particular electoral district in an upcoming election. If polls are available, they are often treated with a healthy dose of skepticism - rightly or wrongly - especially when other sources to form expectations do provide a different message. After all, voters are not fools, in particular those that have an instrumental motivation.

While the first point addressed the issue of expectations, the second prominent criticism does address the issue of whether elections accurately represent voters' preferences.

2 Strategic voting is bad for democracy because voters 'misrepresent' their preferences.

Some voters do not vote for their most preferred party (or candidate) and, if they do this because of their expectations of the election outcome, those voters behave

strategically. It might appear that these voters misrepresent their preferences. Some journalistic accounts even get judgmental and suggest that this type of behavior is similar to lying (e.g. Warburton 2015). According to the critics, misrepresenting preferences through strategic voting is undemocratic because the resulting vote tally is biased and therefore does not truly reflect the 'real' distribution of preferences of the public.

Voting is not about lying. On the ballot, it typically says something like this: 'place an X next to the party you wish to vote for'. Ballots do not instruct voters to cast their vote for the party they like most. They don't have to. Neither is someone forced to vote strategically. Voters choose to do so. And we think that there are good reasons for it.

First, voters have to decide to support one option that is offered on the ballot. This already 'misrepresents' a voter's preference because he or she cannot vote for him or herself. Paraphrasing a former United States Secretary of Defense, strategic voters work with the parties they have, not the parties they want. In the best-case scenario, he or she votes for a most preferred party or candidate on the ballot. This most-preferred option might still not represent a voter's preference on every potential issue. In representative democracies voters vote for parties (or more abstractly for policy bundles as some might have it), but they cannot cast different votes, one for each relevant policy. There will never be a Rousseaunian world in which a resulting vote tally could ever truly reflect the volonté générale – the general will as reflected by the distribution of 'true' preferences of the public. Even if everyone voted for his or her most-preferred party, this does not imply that an election outcome represents the will of the people on every issue. PR systems are not better in this regard than majoritarian systems.

Second, let's entertain the idea that everyone has to vote for her most preferred party. Is that a more democratic alternative? Thus, our hypothetical supporter of L actually casts a sincere vote. Suppose that all supporters of L prefer C over R and together would give C a majority, but R wins the plurality vote because the opposition L and C did not coordinate. The election outcome would be that R determines policy although a majority would have preferred a different outcome. While hypothetical, such an outcome is not uncommon. In new democracies such as Albania and other Central Eastern countries large shares of the votes cast were wasted because they went to hopeless candidates or parties that did not win representation in parliament (Birch, 2003). Such an outcome is not unproblematic either because it threatens the legitimacy of the electoral process after votes have been translated into seats. The electoral process would be an inefficient way to aggregate preferences. In real elections, we will always find situations where parties compete without having a clear chance of winning. They might run this time to be in a better position for the next general election, or they might hope to be more successful in other elections, for instance, at the local, state, or European level. Some parties do not compete to win but in order to get reimbursed for part of their campaign costs. If voters care about making their votes count rather than merely being counted, just voting for their most-preferred party is not a reasonable option. Consequently, strategic voting or 'voting with your head' can be a good thing for democracy, while 'voting with your heart' could pave the way for an inefficient outcome.

Thus, we maintain that strategic voting is good for democracy. It is a valid way for citizens to use the electoral rules to translate their preferences into a desirable government and the best possible policy outcome they can expect. Strategic voting can help to arrive at a more representative outcome in which voters' sincere preference distributions are reflected more closely in the subsequent policy output. It might not happen all the time, but there is a good chance that such an outcome compares favorably to the outcome of an entirely sincere electorate. Thus, rather than being 'undemocratic', strategic voting can be a desirable feature given how the institutional mechanics of a representative democracy work.

#### REFERENCES

- Abramson, Paul R., John H. Aldrich, Phil Paolino, and David W. Rohde. 1992. "Sophisticated" Voting in the 1988 Presidential Primaries'. *American Political Science Review* 86(1): 55–69.
- Achen, Christopher H., and W. Phillips Shively. 1995. Cross-Level Inference. Chicago: University of Chicago Press.
- Aldrich, John H., André Blais, Indridi H. Indridason, and Renan Levine. 2005. 'Coalition Considerations and the Vote', in Asher Arian and Michal Shamir (eds.), *The Elections in Israel, 2003*, New Brunswick, NJ: Transaction Publishers, pp. 180–211.
- Alvarez, R. Michael, and Jonathan Nagler. 2000. 'A New Approach for Modelling Strategic Voting in Multiparty Elections'. *British Journal of Political Science* 30(1): 57–75.
- Alvarez, R. Michael, Frederick J. Boehmke, and Jonathan Nagler. 2006. 'Strategic Voting in British Elections'. *Electoral Studies* 25(1): 1–19.
- Armstrong, David A., and Raymond M. Duch. 2010. 'Why Can Voters Anticipate Post-Election Coalition Formation Likelihoods?' *Electoral Studies* 29(3): 308–315.
- Artabe, Alaitz, and Javier Gardeazabal. 2014. 'Strategic Votes and Sincere Counterfactuals'. Political Analysis 22(2): 243–257.
- Austen-Smith, David, and Jeffrey Banks. 1988. 'Elections, Coalitions, and Legislative Outcomes'.

  \*\*American Political Science Review 82(2): 405–422.\*\*
- Bargsted, Matias A., and Orit Kedar. 2009. 'Coalition-Targeted Duvergerian Voting: How Expectations Affect Voter Choice under Proportional Representation'. American Journal of Political Science 53(2): 307–323.
- Bartels, Larry M. 1988. Presidential Primaries and the Dynamic of Public Choice. Princeton, NJ: Princeton University Press.
- Bawn, Kathleen. 1999. 'Voter Responses to Electoral Complexity: Ticket Splitting, Rational Voters and Representation in the Federal Republic of Germany'. British Journal of Political Science 29(3): 487–505.
- Birch, Sarah. 2003. Electoral Systems and Political Transformation. Basingstoke: Palgrave MacMillan.
- Black, Jerome H. 1978. 'The Multicandidate Calculus of Voting: Application to Canadian Federal Elections'. *American Journal of Political Science* 22(3): 609–638.
- Black, Jerome H. 1980. 'The Probability-Choice Perspective in Voter Decision Making Models'. *Public Choice* 35(5): 565–574.

- Blais, André, and Richard Nadeau. 1996. 'Measuring Strategic Voting: A Two-Step Procedure'. Electoral Studies 15(1): 39–52.
- Blais, André, Robert Young, and Martin Turcotte. 2005. 'Direct or Indirect? Assessing Two Approaches to the Measurement of Strategic Voting'. *Electoral Studies* 24(2): 163–176.
- Blais, André, Simon Labbé St-Vincent, Jean-Benoit Pilet, and Rafael Treibich. 2016. 'Voting Correctly in Lab Elections with Monetary Incentives: The Impact of District Magnitude'. Party Politics 22(4): 544–51..
- Brady, Henry E., and Richard Johnston. 1987. 'What's the Primary Message: Horse Race or Issue Journalism?', in Gary R. Orren, and Nelson W. Polsby (eds.), *Media and Momentum*. Chatham, NJ: Chatham House, pp. 127–186.
- Cain, Bruce E. 1978. 'Strategic Voting in Britain'. American Journal of Political Science 22(3): 639–655.
  Cherry, Todd, and Stephan Kroll. 2003. 'Crashing the Party: An Experimental Investigation of Strategic Voting in Primary Elections'. Public Choice 114(3–4): 387–420.
- Cho, Seok-Ju. 2014. 'Voting Equilibria Under Proportional Representation'. American Political Science Review 108(2): 281–96.
- Clough, Emily. 2007. 'Strategic Voting Under Conditions of Uncertainty: A Re-Evaluation of Duverger's Law'. British Journal of Political Science 37(2): 313–332.
- Cox, Gary W. 1997. Making Votes Count: Strategic Coordination in the World's Electoral Systems. Cambridge: Cambridge University Press.
- Cox, Gary W., and Matthew Soberg Shugart. 1996. 'Strategic Voting under Proportional Representation'.

  Journal of Law, Economics, and Organization 12(2): 299–324.
- Duch, Raymond M., Jeff May, and David A. Armstrong. 2010. 'Coalition-Directed Voting in Multiparty Democracies'. *American Political Science Review* 104(4): 698–719.
- Duverger, Maurice. 1954. *Political Parties: Their Organization and Activity in the Modern State*. New York: Wiley.
- Downs, Anthony. 1957. An Economic Theory of Democracy. New York: Harper.
- Eckel, Catherine, and Charles A. Holt. 1989. 'Strategic Voting in Agenda-Controlled Committee Experiments'. *American Economic Review* 79(4): 763–773.
- Elff, Martin. 2014. 'Separating Tactical from Sincere Voting: A Finite-Mixture Discrete-Choice Modelling Approach to Disentangling Voting Calculi'. Paper presented at the Annual Conference of the Midwest Political Science Association, 3-6 April 2014, Chicago, Illinois..
- Evans, Geoffrey, and Anthony Heath. 1993. 'A Tactical Error in the Analysis of Tactical Voting: A Response to Niemi, Whitten and Franklin'. *British Journal of Political Science* 23(1): 131–137.
- Fey, Mark. 1997. 'Stability and Coordination in Duverger's Law: A Formal Model of Preelection Polls and Strategic Voting'. American Political Science Review 91(1): 135—147.
- Fisher, Stephen D. 2004. 'Definition and Measurement of Tactical Voting: The Role of Rational Choice'.

  British Journal of Political Science 34(1): 152—166.
- Fisher, Stephen D., and David P. Myatt. 2002. 'Strategic Voting Experiments'. Working paper.
- Fiske, Susan T., and Shelley E. Taylor. 1991. Social Cognition. New York: McGraw-Hill.
- Forsythe, Robert, Roger B. Myerson, Thomas A. Rietz, and Robert J. Weber. 1993. 'An Experiment on Coordination in Multi-Candidate Elections: The Importance of Polls and Election Histories'. Social Choice and Welfare 10(3): 223–247.
- Forsythe, Robert, Thomas Rietz, Roger Myerson, and Robert Weber. 1996. 'An Experimental Study of Voting Rules and Polls in Three-Candidate Elections'. *International Journal of Game Theory* 25(3): 355–383.
- Fredén, Annika. 2013. 'Thresholds, Coalition Signals and Strategic Voting: A Survey Experimental Study'. Working paper.
- Fredén, Annika. 2014. 'Threshold Insurance Voting in PR Systems: A Study of Voters' Strategic Behavior in the 2010 Swedish General Election'. Journal of Elections, Public Opinion and Parties 24(4): 473–492.

- Fujiwara, Thomas. 2011. 'A Regression Discontinuity Test of Strategic Voting and Duverger's Law'. Quarterly Journal of Political Science 6(3–4): 197–233.
- Galbraith, John W., and N.C. Rae. 1989. 'A Test of the Importance of Tactical Voting'. British Journal of Political Science, 19(1): 126–136.
- Geer, John G., Amy Carter, James McHenry, Ryan Teten, and Jennifer Hoef. 2004. 'Experimenting with the Balancing Hypothesis'. *Political Psychology* 25(1): 49–63.
- Gerber, Elisabeth R., Rebecca B. Morton, and Thomas A. Rietz. 1998. 'Minority Representation in Multimember Districts'. *American Political Science Review* 92(1): 127–144.
- Goodin, Robert E., Werner Güth, and Rupert Sausgruber. 2008. 'When to Coalesce: Early Versus Late Coalition Announcement in an Experimental Democracy'. *British Journal of Political Science* 38(1): 181–191.
- Gschwend, Thomas. 2004. Strategic Voting in Mixed Electoral Systems. Reutlingen: SFG-Elsevier.
- Gschwend, Thomas. 2007. 'Ticket-Splitting and Strategic Voting under Mixed Electoral Rules: Evidence from Germany'. European Journal of Political Research 46(1): 1–23.
- Gschwend, Thomas. 2009. 'District Magnitude and the Comparative Study of Strategic Voting', in Hans-Dieter Klingemann (ed.), *The Comparative Study of Electoral Systems*. Oxford: Oxford University Press. pp. 289–307.
- Gschwend, Thomas, and Dirk Leuffen. 2005. 'Divided We Stand Unified We Govern? The Issue of Cohabitation in the French Elections of 2002'. *British Journal of Political Science* 35(4): 691–712.
- Gschwend, Thomas, and Michael Stoiber. 2012. 'Strategic Voting in Proportional Systems: The Case of Finland'. Working paper.
- Gschwend, Thomas, Michael F. Meffert, and Lukas F. Stoetzer. 2017. 'Weighting Parties and Coalitions: How Coalition Signals Influence Voting Behavior'. *Journal of Politics*, forthcoming.
- Gschwend, Thomas, Lukas Stoetzer, and Steffen Zittlau. 2016. 'What Drives Rental Votes? How Coalitions Signals Facilitate Strategic Coalition Voting'. *Electoral Studies* 44: 293–306.
- Guinjoan, Marc, Pablo Simón, Sandra Bermúdez, and Ignacio Lago. 2014. 'Expectations in Mass Elections: Back to the Future?' Social Science Quarterly 95(5): 1346–59.
- Hall, Andrew B, and James M. Snyder. 2015. 'Information and Wasted Votes: A Study of US Primary Elections'. Quarterly Journal of Political Science 10(4): 433–459.
- Heath, Anthony. 1991. *Understanding Political Change: The British Voter 1964–1987*. Oxford: Pergamon Press.
- Herrmann, Michael. 2014. 'Polls, Coalitions and Strategic Voting under Proportional Representation'. Journal of Theoretical Politics 26(3): 442–467.
- Herrmann, Michael, Simon Munzert, and Peter Selb. 2016. 'Determining the Effect of Strategic Voting on Election Results'. *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 179 (2): 583–605.
- Herrmann, Michael, and Franz Urban Pappi. 2008. 'Strategic Voting in German Constituencies'. *Electoral Studies* 27(2): 228–244.
- Huber, Sascha, Thomas Gschwend, Michael Meffert, and Franz Urban Pappi. 2009. 'Erwartungsbildung über den Wahlausgang und ihr Einfluss auf die Wahlentscheidung', in Oscar W. Gabriel, Jürgen W. Falter, and Bernhard Weßels (eds.), Wahlen und Wähler. Analysen aus Anlass der Bundestagswahl 2005. Wiesbaden: VS Verlag für Sozialwissenschaften, pp. 561–584.
- Indridason, Indridi H. 2011. 'Proportional Representation, Majoritarian Legislatures, and Coalitional Voting'. American Journal of Political Science 55(4): 955–71.
- Irwin, Galen A., and Joop J.M. van Holsteyn. 2008. 'What Are They Waiting for? Strategic Information for Late Deciding Voters'. *International Journal of Public Opinion Research* 20(4): 483–493.
- Irwin, Galen A., and Joop J.M. van Holsteyn. 2012. 'Strategic Electoral Considerations under Proportional Representation'. *Electoral Studies* 31(1): 184–191.
- Johnston, Ron, and Charles J. Pattie. 1991. 'Tactical Voting in Great Britain in 1983 and 1987: An Alternative Approach'. *British Journal of Political Science* 21(1): 95–108.

- Kedar, Orit. 2011. 'Voter Choice and Parliamentary Politics: An Emerging Research Agenda'. British Journal of Political Science 42(3): 537–553.
- King, Gary, 1997. A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data. Princeton: Princeton University Press.
- Kiss, Áron. 2015. 'Identifying Strategic Voting in Two-Round Elections'. Electoral Studies 40: 127–135.
- Lago, Ignacio. 2008. 'Rational Expectations or Heuristics? Strategic Voting in Proportional Representation Systems'. Party Politics 14(1): 31–49.
- Lago, Ignacio. 2011. 'Strategic Voting in Proportional Representation Systems: Evidence from a Natural Experiment'. Party Politics 18(5): 653–665.
- Lanoue, David J., and Shaun Bowler. 1992. 'The Sources of Tactical Voting in British Parliamentary Elections, 1983–1987'. *Political Behavior* 14(2): 141–157.
- Leys, Colin. 1959. 'Models, Theories, and the Theory of Political Parties'. Political Studies 7: 127-146.
- Linhart, Eric. 2009. 'A Rational Calculus of Voting Considering Coalition Signals: The 2005 German Bundestag Election as an Example'. World Political Science Review 5(1): 1–28.
- Linhart, Eric, and Sascha Huber. 2009. 'Der rationale Wähler in Mehrparteiensystemen: Theorie und experimentelle Befunde', in Christian Henning, Eric Linhart, and Susumo Shikano (eds.), Parteienwettbewerb, Wählerverhalten und Koalitionsbildung. Festschrift zum 70. Geburtstag von Franz Urban Pappi. Baden-Baden: Nomos. pp. 133—159.
- Linhart, Eric, and Markus Tepe. 2015. 'Rationales W\u00e4hlen in Mehrparteiensystemen mit Koalitionsregierungen. Eine laborexperimentelle Untersuchung'. Politische Vierteljahresschrift 56(1): 44–76.
- McCuen, Brian, and Rebecca B. Morton. 2010. 'Tactical Coalition Voting and Information in the Laboratory'. Electoral Studies 29(3): 316–328.
- McDermott, Rose. 2002. 'Experimental Methodology in Political Science'. Political Analysis 10(4): 325–342.
- McKelvey, Richard D., and Peter C. Ordeshook, Peter C. 1972. 'A General Theory of the Calculus of Voting', in J. F. Herndon, and J. Ł. Bernd (eds.), *Mathematical Applications in Political Science* IV. Charlottesville: University Press of Virginia, pp. 32–78.
- Meffert, Michael F. 2015. 'Strategic Coalition Voting in Multiparty Systems: Assessing Strategies and Conditions by Simulation'. Working paper.
- Meffert, Michael F., and Thomas Gschwend. 2007. 'Strategic Voting under Proportional Representation and Coalition Governments: A Simulation and Laboratory Experiment'. Working paper.
- Meffert, Michael F., and Thomas Gschwend. 2009. 'Strategisches Wählen in Mehrparteiensystemen: Ein Gruppenexperiment', in Christian Henning, Eric Linhart, and Susumo Shikano (eds.), Parteienwettbewerb, Wählerverhalten und Koalitionsbildung. Festschrift zum 70. Geburtstag von Franz Urban Pappi. Baden-Baden: Nomos. pp. 107–132.
- Meffert, Michael F., and Thomas Gschwend. 2010. 'Strategic Coalition Voting: Evidence from Austria'. Electoral Studies 29(3): 339–349.
- Meffert, Michael F., and Thomas Gschwend. 2011. 'Polls, Coalition Signals and Strategic Voting: An Experimental Investigation of Perceptions and Effects'. European Journal of Political Research 50(5): 636–667.
- Meffert, Michael F., Sascha Huber, Thomas Gschwend, and Franz Urban Pappi. 2011. 'More than Wishful Thinking: Causes and Consequences of Voters' Electoral Expectations about Parties and Coalitions'. *Electoral Studies* 30(4): 804–815.
- Morton, Rebecca B., and Kenneth C. Williams. 1999. 'Information Asymmetries and Simultaneous versus Sequential Voting'. *American Political Science Review* 93(1): 51–67.
- Muller, Daniel, and Lionel Page. 2015. 'A New Approach to Measure Tactical Voting: Evidence from the British Elections'. Applied Economics 47(36): 3839–3858.
- Niemi, Richard G., Guy Whitten, and Mark N. Franklin. 1992. 'Constituency Characteristics, Individual Characteristics and Tactical Voting in the 1987 British General Election'. *British Journal of Political Science* 22(2): 229–240.

- Niemi, Richard G., Guy Whitten, and Mark N. Franklin. 1993. 'People Who Live in Glass Houses: A Response to Evans and Heath's Critique of Our Note on Tactical Voting'. British Journal of Political Science 23(4): 549–553.
- Pappi, Franz Urban, and Paul W. Thurner. 2002. 'Electoral Behaviour in a Two-Vote System: Incentives for Ticket Splitting in German Bundestag Elections'. European Journal of Political Research 41(2): 207–232.
- Plott, Charles R. 1991. 'A Comparative Analysis of Direct Democracy, Two-Candidate Elections, and Three-Candidate Elections in an Experimental Environment', in Thomas R. Palfey (ed.), Laboratory Research in Political Economy. Ann Arbor: University of Michigan Press, pp. 11–31.
- Rapoport, Amnon, Dan S. Felsenthal, and Zeev Maoz. 1991. 'Sincere versus Strategic Voting Behavior in Small Groups', in Thomas R. Palfrey (ed.), Laboratory Research in Political Economy. Ann Arbor: University of Michigan, pp. 201–235.
- Reed, Steven R. 1990. 'Structure and Behaviour: Extending Duverger's Law to the Japanese Case'. British Journal of Political Science 20(3): 335–356.
- Rich, Timothy S. 2015. 'Strategic Voting and the Role of Polls: Evidence from an Embedded Web Survey.' PS: Political Science & Politics 48(2): 301–305.
- Riker, William R., and Peter C. Ordeshook. 1968. 'A Theory of the Calculus of Voting'. *American Political Science Review* 62(1), 25–42.
- Sartori, Giovanni. 1968. 'Political Development and Political Engineering', in John D. Montgomery, and Albert O. Hirschman (eds.), Public Policy. Cambridge: Cambridge University Press, pp. 261–298.
- Shikano, Susumu. 2009. 'Simulating Party Competition and Vote Decision under Mixed Member Electoral Systems'. AUCO Czech Economic Review 3: 270–291.
- Shikano, Susumu, Michael Herrmann, and Paul W. Thurner. 2009. 'Strategic Voting under Proportional Representation: Threshold Insurance in German Elections'. West European Politics 32(3): 634–656.
- Spafford, Duff. 1972. 'Electoral Systems and Voters' Behavior: Comment and a Further Test'. Comparative Politics 5(1): 129–134.
- Spenkuch, Jörg L. 2015. 'Please Don't Vote for Me: Voting in a Natural Experiment with Perverse Incentives'. Economic Journal 125(2009): 1025–52.
- Warburton, Nigel. 2015. 'Is it Wrong to Vote Tactically in the General Election?' The Guardian, 7 May 2015, http://www.theguardian.com/commentisfree/2015/may/06/wrong-vote-tactically-generalelection
- Williams, Kenneth C. 1991. 'Candidate Convergence and Information Costs in Spatial Elections: An Experimental Analysis', in Thomas R. Palfrey (ed.), *Laboratory Research in Political Economy*. Ann Arbor: University of Michigan, pp. 113–135.
- Yuval, Fany, and Kaisa Herne. 2005. 'Sophisticated Behavior under Majoritarian and Non-Majoritarian Voting Procedures'. *Political Behavior* 27(3): 217–237.