

THE EFFECTS OF POLLING DATA ON INDEPENDENT VOTING BEHAVIOR

A Dissertation by

Katherine Astrid Witsman

Master of Arts, Wichita State University, 2014

Bachelor of Arts, Wichita State University, 2007

Submitted to the Department of Psychology
and the faculty of the Graduate School of
Wichita State University
in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy

December 2016

© Copyright 2016 by Katherine Astrid Witsman

All Rights Reserved

THE EFFECT OF POLLING DATA ON INDEPENDENT VOTING BEHAVIOR

The following faculty members have examined the final copy of this dissertation for form and content, and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in psychology.

Charles Burdsal, Committee Chair

Barbara Chaparro, Committee Member

Darwin Dorr, Committee Member

Greg Meissen, Committee Member

Mark Glaser, Committee Member

Accepted for the College of Liberal Arts and Sciences

Ron Matson, Dean

Accepted for the Graduate School

Dennis Livesay, Dean

TABLE OF CONTENTS

Chapter	Page
Introduction.....	6
Impact of political polls.....	7
The role of social media.....	12
Strategic voting and influences on Independent voting.....	12
A role for community psychology.....	18
Previous methodologies	19
Current study	22
Methods.....	25
Participants	25
Materials and procedures.....	28
Results.....	31
Scenario 1.....	31
Scenario 2.....	34
Scenario 3.....	36
Demographic analyses.....	37
Other analyses.....	39
Discussion.....	42
Evidence for strategic voting.....	42
Demographic issues.....	44
Methodology issues.....	45
Limitations.....	48
Further research.....	49
References.....	47
Appendix.....	53

ABSTRACT

Although the American political system is often thought of as comprised of two parties, there are in fact often elections in which three or more parties are competing at the national level. In a national election with a Democratic, Republican and Independent candidate, voting often may be no longer about a preferred candidate or party, but instead about strategy. Perhaps one of the most important sources for strategic decision making in these elections is polling data. Given that polling data play a particular role in these elections, this research was conducted to examine just what role polling data play on Independent voting behavior in a three-party election. In this study, a preferred candidate was assigned and hypothetical polls with varied percentage points were used in an experimental design to determine how poll percentages affect the likelihood of voting for the preferred Independent candidate. To understand the decision making process, variations on the polling scenarios were utilized to examine the influence of the overall poll numbers, leading party, the percentage trend over time, as well as other demographic and cognitive items. The results suggested a significant relationship between the percentages for Independent candidates reported in polls and the likelihood of voting for him/her, regardless of gender, ethnicity, which major party candidate is leading in the polls and recent trends in the polling percentage of the candidate. While other relationships were found in the data to predict specific voting patterns, such as degree of partisanship affecting the likelihood of voting for an Independent candidate in any polling scenario, none significantly influenced the trend found as a result of the different percentage variations. The study demonstrated that, regardless of these variables, as poll numbers go up for the preferred Independent candidate, the likelihood of voters willing to vote for the candidate will also increase, confirming the hypothesis that polling data influence Independent voting behavior.

Introduction

As we approach another presidential election, politics is once again center stage for many Americans. The media will be inundated with election stories and the discussions among the electorate about candidates, platforms and parties has begun. If trends over the last 10 years continue, there will be a great deal of discussions among voters about how disenfranchised they are with both the democratic and republican parties. Gallup polls since 2004 have shown a growing trend of voters identifying themselves as independent voters (Gallup, 2015) with 60% of those polled indicating a need for a third major party. At 42% of those polled, independent affiliation represents a larger percent of the electorate than either of the two major political parties. Given this unwillingness to identify with either of the two major political parties, why are the majority of those in political offices, especially including those elected more recently, either republicans or democrats?

There are obvious answers to this question, and other unknown forces at play. First, it is important to consider that while the Democrat and Republican parties represent a fairly cohesive set of beliefs, the independent category includes the Green party, the Libertarian party, the Constitution party and every other political party. This means that while independents may in fact hold a majority within the electorate, that majority is actually splintered into many smaller percents for each party that falls under the Independent label. Most important to this study, however, is the consideration that while many people self-identify as independent, many of these voters will ultimately vote for either a republican or a democrat.

Given the disenfranchisement with the two existing major parties, it should be examined why, in a system in which each eligible voter has ultimate control over their vote, the people seemingly continue to vote against their own interests. Prior psychological and political research

has shed some light on this phenomenon. Research suggests there are two important forces at play that should be considered when attempting to understand voting behavior, in particular what this paper calls independent voting (voting for a party/candidate other than a republican or democrat). First, the largely political principle, rooted in the Nash-programme in game theory, that when a preferred candidate is not seen as likely to win, a voter will often vote for the second most preferred candidate to prevent a win for the least preferred candidate, thereby ensuring a smaller personal win, but minimizing the risk of personal loss. This idea will be discussed in the influences on independent voting subsection. In order for this theory to be as influential as it is theorized to be, there must be an explanation for how voters decide the likelihood of each candidate winning. In the US, one major source of information on the potential of a candidate to win an election is political polls, the effect of which must also be examined.

Impact of political polls

Public opinion polls have become a ubiquitous media element in recent political campaigns. While the polls themselves attract much attention (e.g., scrutiny over methodology and sample size), the impact of these polls on voters has been largely ignored. Further, although the standard premise is that polls merely reflect popular opinion, polls may also affect popular opinion. The effect that polls may have on voters' opinions and ultimately how they vote has been a concern throughout the world. For example, in the 1990 Nicaraguan election, polling organizations refused to share information and polls were thought of as propaganda weapons (Bollinger and Lund 1988; Miller 1991). In fact it has been suggested that some of the poll results in Nicaragua may have been fabricated. Similarly, the Canadian House of Commons has debated several bills proposed to ban the publication of political poll results during political campaigns (Michalos 1991). The publication of poll results immediately before an election is illegal in Brazil and France. In Germany, while it is not illegal, the polling organizations

voluntarily restrict polling immediately prior to elections (Marsh 1984). Presumably, polls have been restricted in these countries because of hypothesized effects they have on the electorate. A few previous studies have examined the effect of exposure to political polls on voters' candidate selection. Although some studies found evidence that voter preference shifts toward the candidate leading in the polls (i.e., the bandwagon effect; Marsh 1985; Michalos 1991; Teer and Spence 1973, p. 133), other studies found evidence that voter preference shifts toward the candidate trailing in the polls (i.e., the underdog effect; Ceci and Kain 1982; Fleitas 1971; Laponce 1966; Lavrakas, Holley, and Miller 1991). Overall the research has been inconclusive since there has been no one consistent finding across the previous studies (Marsh 1984). The lack of consistent findings may be because these studies examined the effects of polls at the aggregate level. However, polls may cause some voters to switch their vote in one direction and others to switch in a different direction. Often these previous studies have used cognitive dissonance theory (Festinger 1957) to explain how different groups of voters use the information provided by political polls to either attain a state of cognitive consistency or maintain cognitive consistency.

Most of the political science literature on polls focuses on the predictive accuracy of polls especially with regard to such issues as voter turnout (Petrocik, 1991) and un-decided voters (Panagakis 1988). Other studies focus on biases related to the interview process itself, such as the effect of the race of the interviewer (Finkel, Guterbock, and Borg 1991) and the effect of question wording and question order (Schuman and Presser, 1981). However, few studies have investigated how exposure to polls can influence voters. Several studies have examined the specific topic of whether early election returns from the East Coast affect voting behavior in western states during presidential elections. Some early studies on this issue have found that the

broadcast of early election returns affects neither voter turnout nor candidate choice in western states (Fuchs, 1966; Mendelsohn, 1966; Tuchman and Coffin, 1971). However, more recent research on the 1980 presidential election suggests that exposure to early election returns leads to a small decrease in voter turnout in western states (Jackson, 1983; Sudman, 1986). Therefore, across elections, the results are inconclusive. A literature review by Marsh, (1984) reviews experimental, quasi-experimental, and non-experimental studies of the effect of exposure to polls on voters' candidate selection. A few studies find support for a bandwagon effect (i.e., people decide how to vote by conforming to the perceived majority; e.g., Marsh 1985; Teer and Spence 1973, p. 133).

However, other studies support an underdog effect (i.e., people decide how to vote by going against the perceived majority; e.g., Fleitas, 1971; Laponce, 1966). The results across these different studies are inconclusive. Marsh (1984) emphasizes the glaring lack of experimental investigations of poll effects on choice. She also suggests that the existing studies are limited because they are all concerned with the aggregate effect of exposure to polls on all voters. She further notes that few studies have controlled for voters' prior expectations about the election outcome and hypothesizes that surprising poll information (i.e., information that disconfirms expectations) may have the most impact.

It has been shown that the presence or absence of bandwagon and underdog effects depends on individual-level characteristics of voters. For example, in an experiment, Navazio (1977) found no aggregate support for underdog or bandwagon effects. However, he found bandwagon effects in one occupational group and underdog effects in a different occupational group. Kaplowitz et al. (1983) and Ferrell, Areni, and Wilcox (1993) also found that bandwagon effects only occurred when individuals have low levels of commitment to the relevant issue.

Finally, Lavrakas and Holley, (1991) found that the presence of bandwagon and underdog effects was associated with the voter's education level, age, and employment status.

Cognitive consistency theories including dissonance theory (Festinger, 1957) and balance theory (Heider, 1946) and its extensions (Rosenberg and Abelson, 1960) describe the relationships that exist among individuals' beliefs, attitudes, and behaviors. Mental representations of these elements form a cognitive system. The common principle uniting consistency theories is that the elements in the system "tend to exist in harmony with one another, and that disharmony motivates cognitive changes designed to restore harmony" (Eagly and Chaiken, 1993, p. 469).

Several studies in social psychology have used theories of cognitive consistency in an election context. For example, Heider's, (1946) balance theory has been used to explain voters' perceptions about the issue positions of political candidates and voters' perceptions concerning the outcome of an election (i.e., how the electorate will vote; Granberg and Brent 1980, 1983; Granberg and Seidel, 1976; Kinder, 1978). Granberg and Seidel, (1976) found that during the 1968 and 1972 presidential campaigns, voters tended to overestimate the similarity of the issue positions taken by their preferred candidates and the voters' own position on the issue (i.e., an assimilation effect).

In some cases voters also underestimated the similarity of the position taken by their non-preferred candidates and their own position (i.e., a contrast effect). Granberg and Brent (1980) replicated these results using data collected during the 1968, 1972, 1976, and 1980 elections. They also found that the magnitude of the assimilation effect was related to how much voters liked their preferred candidate. The authors used panel data to argue that the causal direction of this effect is that attraction to a candidate leads to perceived similarity of opinion, rather than the

reverse (i.e., the perception of shared opinions lead to voter preference). They also found that the assimilation effects were stronger and more reliable than the contrast effects.

Granberg and Brent, (1983) also used national data gathered during eight U.S. presidential elections between 1952 and 1980 to examine the relationship between preference for a candidate and expectations concerning which candidate would win the election. The authors found that voters tend to expect their preferred candidate to win the election. This result is robust and has been reported in several previous studies (Babad and Yacabos, 1993; Brown, 1982; Lazarsfeld, Berelson, and Gaudet, 1948). Granberg and Brent describe how this tendency is consistent with balance theory and social judgment theory. The authors use the symbolic language of balance theory and denote P as the citizen, O as the electorate, and X as the matter of who should be elected president. If it is assumed that the voter feels favorably about the electorate at large, the system is in balance when P and O agree on X and is in imbalance when P and O disagree on X. In the latter case, imbalance can be resolved if P changes his/her attitude toward the electorate, his/her candidate preference, or his/her expectation about how the electorate will behave. The authors used panel data to demonstrate that preferences are more stable over time than expectations and that voters are more likely to change their expectations to be consistent with their preferences than vice versa.

In addition, Granberg and Brent explain that when voters are asked to predict the outcome of an election, they make attributions about the electorate. In making this attribution, voters overweight their own opinions about the candidate. In other words, they erroneously assume that the electorate is similar to them, a bias known as false consensus (Campbell 1986; Hoch 1987; Ross, Greene, and House 1977; Tesser and Campbell 1983). These studies have established that a tendency toward a state of cognitive consistency is exhibited in voters'

perceptions about political candidates and their expectations about the outcomes of elections.

Voters make false consensus errors about political leaders and the electorate in order to maintain cognitive consistency.

The role of social media

One important factor to consider, which hadn't existed at the time of many of these studies, is the role of social media in polling and voting. Where voters previously had to rely on news outlets for updates on elections, nowadays many of us are inundated in election cycles with campaign updates such as poll numbers or standings via social media platforms. Even for those who would not seek out election news, it may be seen in news feeds on Facebook or Twitter, among other social media platforms. Recent research on this phenomena suggests that voters self-report more awareness of election standings since joining social media platforms than prior to their social media presence (Dimitrova, et al; 2011). This leaves the potential for social media to play a large role in shaping our perceptions of the standings of candidates, and thus their perceived electability.

Strategic voting and influences on Independent voting

In the wake of Duverger's Law, which asserts that in a plurality based electoral system two dominant parties will emerge, third parties have been, and are, regarded as a fairly peripheral set of actors, their long-term survival made doubtful by the voters' wishes to avoid wasting a vote (Duverger, 1954). One important empirical objection to Duverger's Law, however, is that, except for the case of the United States, in those countries which use this system, meaningful third parties persist (Duverger, 1954; Riker, 1982). Parties will, of course, attract a certain number of voters regardless of their electoral situation. Every party possesses loyal voters who stay with their party through periods of boom and bust. By the same token, there are voters who will never vote for an Independent under any circumstances. Between these two extremes, however, lie two

sets of voters who will vote for minor or third parties subject to the state of party competition. These two types of citizens are known as strategic or protest voters, who may cast their ballots for an Independent, often without regard to that party's overall platform and agenda.

Whether voters in democratic systems are rational has long been under debate. One of the central points of contention has been whether the Riker and Ordeshook (1968) calculus of voting is sound empirically (Green and Shapiro 1994; Aldrich 1993; Jackman 1993). In this system, the voter is assumed to calculate the costs and benefits of voting and to vote for the candidate bringing them the highest utility, if the utility of doing so outweighs the cost of voting. When the calculus of voting model was extended to multiparty elections by McKelvey and Ordeshook (1972), though, the theoretical rationale for another form of rational behavior became quite clear. For the McKelvey and Ordeshook model demonstrated that in a multiparty election, a voter might be willing to vote for her second most preferred party if the more preferred party is unlikely to win and if there is a close contest between the second and third ranked parties. This rational behavior goes by many labels, such as strategic, tactical, or sophisticated voting behavior.

Obviously, this sort of strategic behavior by voters was not noticed first by McKelvey and Ordeshook. In fact, there is have been a number of theoretical developments of models of strategic voting behavior in single-member district plurality systems (Cox 1994, 1997; Myerson and Weber 1993; Palfrey 2002) as well as in many other types of electoral systems (Cox 1984; Ludwin 1978; Myerson and Weber 1993). But because of the focus of much of the political behavior literature on modeling two-party or two-candidate elections in the United States, strategic behavior was largely ignored by most researchers until the late 1970's and early 1980's. Two political developments fueled the rising interest in strategic voting research. One was the

rise of multi-candidate presidential primary contests in the United States following the post-1968 reforms in the nomination processes in both of the major political parties. In some of these primary struggles, there were at least a half of a dozen candidates in each party primary; the fact that there were multiple viable candidates opened the door for strategic behavior by primary voters (Abramson et al. 1992; Bartels 1985).

The second development was the rise of third-party or third-candidate challengers in the United Kingdom (Cain 1978; Galbraith and Rae 1989; Heath et al. 1991; Johnston and Pattie 1991; Niemi et al. 1992). In the United Kingdom, the sustained revival of the Liberal Party since 1970, the rise of nationalist parties in Wales and Scotland, and the new Social Democratic Party, poised significant challenges to the established two-party system. The rising importance of these new or resurgent parties in British politics actually seemed to work to the advantage of the Conservatives in the early 1980's as Conservative opposition was split among several parties. This led to explicit attempts by political leaders, by the popular press, and by political pundits to persuade voters to cast strategic votes in order to defeat the Conservative party in the 1987 general election (Galbraith and Rae 1989). Thus, the 1987 British general election has become an important case study for scholars interested in the problem of strategic voting in multiparty elections.

In these two types of political settings, multiparty elections in Britain and presidential primaries in the United States, many scholars have tried to estimate the amount of strategic behavior by voters. There is a great deal of variation in the estimates of strategic behavior reported in the literature, ranging from a low of 5.1% reported by Johnston and Pattie (1991) for the 1983 British elections to a high of 17% reported by Niemi et al. (1992) for the 1987 British

election. The estimates in the literature for the 1988 U.S. presidential primary are in the vicinity of 14%.

Despite this, in the wake of Duverger's Law, which asserts that in a plurality based electoral system two dominant parties will emerge, third parties have been, and are, regarded as a fairly peripheral set of actors, their long-term survival made doubtful by the voters' wishes to avoid wasting a vote (Duverger, 1954). One important empirical objection to Duverger's Law, however, is that, except for the case of the United States, in those countries which use this system, meaningful third parties persist (Duverger, 1954; Riker, 1982). Parties will, of course, attract a certain number of voters regardless of their electoral situation. Every party possesses loyal voters who stay with their party through periods of boom and bust. By the same token, there are voters who will never vote for an Independent under any circumstances. Between these two extremes, however, lie two sets of voters who will vote for minor or third parties subject to the state of party competition. These two types of citizens are known as strategic or protest voters, who may cast their ballots for an Independent, often without regard to that party's overall platform and agenda.

The presence of such voters in part depends on the capacity of winner-take-all electoral systems to provide incentives for voters. Under proportional representation, voters can help their party by voting for it under any circumstances; thus, voting sincerely is a dominant strategy. In winner-take-all systems, where only two parties exist, a similar situation pertains. This is not the case, however, under simple plurality electoral rules where more than two parties compete. The tactical voter provides the simplest example of vote choice which is conditional upon both the competitive situation and individual preferences. It is this type of voter that has received most

attention from academics, in part because it is an obvious point of application for rational choice models of voting behavior.

If one's own party is out of the running in a three-party setting, while the other two parties remain fairly competitive, the most effective course of action is to choose the lesser of those two evils in order to help prevent the least preferred party from winning. This question has received attention both in the rational choice literature and in studies using aggregate-level data. Black (1978), for example, uses an expected utility model in which voters seek to make a difference to the eventual electoral outcome. Black examines the Canadian case, specifying a model in which the decision to vote for a given party is determined by a combination of the utility of the different parties and the chance of a voter making a decisive contribution to determining the outcome. Voters, he finds, will indeed vote for their second preference when that party has a better chance of winning. Meffert and Gschwend (2011) observed the impact of strategic voting in their study on the impact of polls on voting for non-preferred candidates, finding that when in fact voters believed their candidate could not win, they were more likely to vote for someone else.

Cain (1978) addressed the same question using a somewhat different expected utility model for the case of Great Britain. Cain used individual-level data on participation along with an indicator of constituency competitiveness to consider the conditions under which voters will choose their second-preference party over and above their first-preference party. In examining the third-party vote share, he argued that "the number of independent supporters will be inversely related to the competitiveness of the constituency"(p. 645). For Cain, the expected utility calculations were of "primary interest"(p. 648), but the individual-level measures of political

involvement are found to be important and influential in determining whether or not British voters will cast a strategic ballot (see also, Catt 1989).

Each of these papers argues the same thesis, that strategic voting necessarily hurts third parties and that the transfer of votes is typically from the independent to one of the bigger ones. Clearly this is true only if the minor party finishes third in most constituencies (Dobell 1986; Riker 1982; Leys 1959). Where the minor party has finished second or first, it should be shown that the party has received some strategic votes (a point not considered in Cain's analysis). Black's argument that voters may strategically choose their second preference is more consistent with this possibility, but does not develop the point with specific regard to third parties (nor does Black examine individual-level components of the sort discussed by Cain). A fuller treatment of third-party voting would, then, require a combination of the approaches taken by Cain and Black in order to examine the decision to vote for a minor or "third" party in a given party system. However, even this would tackle only half of the issue since there is a further type of vote that also operates against the general tide of Duverger's Law.

The protest vote is both somewhat different and also less studied than the tactical vote, yet it too is a vote against one's usual party of preference. As in the case of strategic voting, this type of vote operates in the interaction between electoral law and individual preference and may, under some circumstances, operate to the benefit of minor parties. The familiar rejection voting model holds that voters irritated at some actions or personalities within their own party will move to vote for another party (Fiorina 1981; Kernell 1977; Key 1966). In a two-party contest, this is often taken to imply voting for the main opposition party. While this may well be true for two-party systems in which, aside from abstention, voters have no alternatives, voters in three or more party systems have a ready alternative at hand. Such citizens may vote against their "own"

party without helping its most important opponent. The presence of significant third parties therefore may help voters overcome such problems by providing a "stepping stone" for dissent.

A role for community psychology

While many of the principles discussed to this point have come from understanding the relationship between psychological theory and political science, it is important to realize that implications of this research may reach far beyond psychological or political theory, to the very functioning of individuals as efficacious members of a larger system. Civic participation, empowerment and social justice represent three core values of community psychology and prior research suggests that polling and independent voting may be related to each.

Independent voters have seen an increase in recent years, with millennials, seniors, and Hispanics singled out as increasingly growing Independent populations. These are three groups that could therefore be disproportionately affected by the potential negative effects of polls on voting. Piven and Cloward's (2012) research on voter turnout suggests that the perceived likelihood of a favored candidate losing is related to lower voter turnout, particularly among minority voters who don't feel they have an equally representative alternative and who are more likely to vote later in the day (thus influenced by early election results). This implies that citizen participation is being negatively impacted by polling data. Furthermore, the fact that minority voters are seemingly disproportionately affected by this phenomena raises a potential problem of social justice, and while it can be debated whether this effect is intentional at any level, the outcome is a systemic problem that should be addressed. It should also be considered from this study that self-efficacy may be hindered by knowing the standing of a preferred candidate, given that when voters believe their candidate to be losing, they are less likely to vote. At a systemic level, a major concern should be whether polls are intentionally or unintentionally favoring and

perhaps maintaining the two major parties, thereby taking power away from the citizens and maintaining power between the Republican and Democratic parties.

If any support is found for the idea that polling data are in fact affecting independent voting behavior, there is potential for policy change to reduce these systemic influences on individual behavior. As stated before, many other Western countries already have laws or policies in place to ban or limit polling prior to elections, given its perceived power over voting decisions. It is conceivable, therefore, to consider a shift in our own policy.

Previous methodologies

While there now seem to be political conditions in both the United States and the United Kingdom, which give voters an incentive to behave strategically, the empirical literature has come up with very different estimates of the extent of strategic voting, even from researchers examining the same election in the same country. It may be that the reason for these divergent results lies in the different methodologies used in these studies to measure or to estimate the extent of strategic voting.

There have been three different approaches to measuring the extent of strategic voting used in the literature. The first is the aggregated inference methodology. Essentially these researchers use aggregate election returns, in different ways, to discern the extent of strategic voting. Some researchers use aggregate electoral data to attempt a direct constituency - by - constituency estimate of strategic voting (Cain 1978), while others look at shifts in vote shares between pairs of elections in different types of constituencies (Spafford 1972; Curtice and Steed 1988; Galbraith and Rae 1989; Johnston and Pattie 1991). Others have simply examined the support for minority parties in different political systems (plurality versus proportional representation systems) to infer the presence of strategic voting.

These studies all suffer from an obvious and problematic flaw. They all are using aggregated electoral data to infer individual level preferences and expectations about the probabilities of various parties winning elections. In broader terms, these researchers are testing individual level political theories with macro level electoral data producing exactly the ecological inference problem which has received much attention in the writing of prominent political methodologists in recent years (e.g. Achen and Shively 1995; King 1997). It is commonly known that estimates about individual behavior produced using aggregated data are often incorrect (King 1997). Thus, it is important to be cautious using estimates of an individual level behavior like strategic voting produced using aggregate electoral data.

The second approach to measuring the extent of strategic voting is self report. In this widely used approach, researchers rely upon the reports of survey respondents about the motivations for their voting behavior (Yang et al. 1991; Niemi et al. 1992; Evans and Heath 1993). For example, in the 1987 British general election survey, respondents were asked to provide the main reason for supporting a particular party at the polls | one of the three response options often used to indicate strategic behavior was "I really preferred another Party but it had no chance of winning in this constituency." This type of survey question, in particular those in the 1987 British survey data, have been used quite widely in the literature on strategic voting. In fact, Niemi et al. (1992) use this survey question, and a subsequent open ended question asking for the reasons a respondent cast the ballot they reported, to develop three different measures of strategic voting.

Unfortunately researchers using these survey questions do not appear to have seriously considered the quality of the survey responses obtained for questions asking for justifications of reported political behavior. In fact, there has been a serious debate in the American electoral

behavior literature recently about the quality of post election questions probing the respondent's vote (Feddersen, Sened, & Wright, 1990); this work has found that there is a strong bias towards reporting a vote for winning candidates the further the interview is from the election. It is quite clear that there is a postelection bias in favor of finding increased levels of strategic voting the further the interview is conducted from Election Day. This effect is particularly strong in the open ended method of measurement, since there are clear increases in each successive postelection month in the reported percentage of strategic voting. Of those respondents who were interviewed six months following the 1987 election, the open-ended approach of survey-based measurement of strategic voting would assert that they were over twice as likely as respondents interviewed one month after the election to report strategic voting.

This strong positive bias in the extent of reported strategic voting using the open ended survey measurement approach also clearly biases the combined measures (which use information from both the open and closed ended measures of strategic voting). However, there is also a small positive bias in estimated strategic behavior the further the interview was conducted from the election closed ended measure is examined. For many these self reports are not really strategic voting, but misreporting of vote biased towards the winner, which is observationally equivalent to reporting a strategic vote. Thus, it should be considered that these errors of the survey design provide strong evidence against the use of these survey questions for the measurement of strategic behavior.

The third approach to measuring the extent of strategic voting in the literature is the closest to the theoretical models of strategic behavior in multiparty democracy. This approach tries to model strategic voting directly as the objective differences between the stated vote and the preference rankings of individuals (Black 1978; Cain 1978) or the subjective differences

between the vote cast and a rank-ordering of parties or candidates (Abramson et al. 1992; Bartels 1988; Blais and Nadeau 1996; Brady and Johnson 1987). This approach involves obtaining measures of the expected vote shares of each party or candidate and the true rank-orderings of parties or candidates for each voter, resulting in being labeled as the direct measurement methodology.

Proponents of this approach believe it is the one most likely to produce unbiased estimates of the extent of strategic voting in multiparty democracies. However, even this direct method relies on probabilities rather than a true experimental method and ignores the psychological issue of cognitive dissonance that may bias reporting and the statistical limitations of interpreting rank-order data.

Current study

While psychology and political science have made an argument for the ability of polls to influence behavior and the impact of perceptions of outcomes on voting behaviors, there are elements of this relationship and methodological approaches that have gone untested. For example, there is no research to date on the impact of polling data on independent voting, and, more specifically, at what point voters perceive an Independent candidate as being at low enough of a risk of losing to actually vote for him/her. This study will endeavor to answer the latter question and establish a statistical and methodological framework for understanding the social psychological influences of polling on independent voting. To this end, the following research questions will be addressed.

Q1: Does the percentage a preferred independent candidate carries in polls influence voting behavior?

Q1a: Is there an increase in likely voting for an Independent candidate as his/her poll numbers increase?

Q2: How do polling fluctuations over time impact independent voting behavior?

Q3: What impact do the comparative standings of the other candidates have on independent voting behavior?

In addition to the above questions, the relationship between independent voting behavior and past party voting, party affiliation and degree of part affiliation will also be examined.

Informed by prior research, this study formulated the following hypotheses for the research questions:

H₀: Polling numbers will not influence the likelihood of voting for a preferred Independent candidate.

H_{1a}: Polling numbers will influence the likelihood of voting for a preferred Independent candidate.

H₀: Trends in polling numbers will not influence independent voting behaviors.

H_{2a}: Participants will be more likely to vote for independent candidates whose polling numbers have increased or stayed the same than participants who are not given past polling data.

H_{2b}: Participants will be more likely to vote for independent candidates whose polling numbers have increased over time than those whose have remained constant or decreased.

H₀: Whether the Democrat or the Republican has a slight lead over the other will not affect voting for Independent candidates.

H₃: Participants will be less likely to vote for the Independent candidate when their second-most-preferred candidate is trailing the least preferred candidate by a close margin.

In addition to these hypotheses, it is also expected that party affiliation, degree of party affiliation and prior voting behaviors will be related to the independent voting behaviors tested in this study.

Methods

Participants

Students, faculty and staff at a large metropolitan Midwestern university were recruited to participate in the study via an email invitation. Email invitations were sent between November 2015 and January 2016 to a random set of 1500 people via the Qualtrics survey platform. Other participants were recruited using Facebook and provided contact information to request an email invitation. The email invited those interested to complete the survey online using Qualtrics and were offered a chance to win a \$50 Target gift card for their participation. Participants who agreed to take the survey were required to complete informed consent, and were asked if they were 18 years of age and eligible to vote in the United States. Participants who did not consent to participate or indicated no to either of these items were automatically sent to the end of the survey and were not used in any analysis.

In total, 444 people started the survey, however only 377 surveys were completed. The age of participants ranged from 18 to 73 ($M=30.58$, $SD=13.14$). The sample skewed young, with 62.2% of participants in their twenties and 50% of them age 25 or younger. The sample was largely white/Caucasian (86.8%) (see Table 1 for race data) and college educated (91.8% indicated they had completed some college or more) (see Table 2 for education data). The sample also had a slight female bias, at 59.2% female (see Table 3 for gender data).

Table 1

Age		
<hr/>		
	Age	
N	Valid	344
	Missing	100
Mean		30.5814
Median		25.5000
Mode		21.00
Std. Deviation		13.13550

Table 2

Choose the ethnicity that best describes you.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White/Caucasian	322	72.5	86.8	86.8
	African American	8	1.8	2.2	88.9
	Hispanic	15	3.4	4.0	93.0
	Asian	10	2.3	2.7	95.7
	Native American	4	.9	1.1	96.8
	Pacific Islander	1	.2	.3	97.0
	Other	11	2.5	3.0	100.0
	Total	371	83.6	100.0	
	Missing	System	73	16.4	
Total		444	100.0		

Table 3

What is the highest level of education you have completed?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School Diploma/ Equivalent	31	7.0	8.2	8.2
	Some college	129	29.1	34.3	42.6
	Associate's	60	13.5	16.0	58.5
	Bachelor's	66	14.9	17.6	76.1
	Some graduate	39	8.8	10.4	86.4
	Master's	42	9.5	11.2	97.6
	Doctorate	9	2.0	2.4	100.0
	Total	376	84.7	100.0	
Missing	System	68	15.3		
Total		444	100.0		

The sample reflected a range of political leanings. On the question of political affiliation, participants predominantly indicated affiliation with either the Democratic (29%) or Republican (29%) parties (see Table 4 for political affiliation data). In contrast, voting history showed that 48.2% of respondents tended to vote more for Democrats while only 37.6% tended to vote more for Republicans (see Table 5 for voting history data). Of these groups, the two parties were very similar in their percentage of respondents who voted for their party more often than the other,

and in the percentage of respondents who voted mostly for their party, however many fewer respondents identified as always voting for Republicans than those that identified as always voting for Democrats (see Table 5). Participants who were not of legal voting age during the last national election were not given this voting history question.

Table 4

With which political party do you identify?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Republican	117	26.4	29.0	29.0
	Democratic	117	26.4	29.0	58.1
	Libertarian	18	4.1	4.5	62.5
	Green	2	.5	.5	63.0
	Constitution	3	.7	.7	63.8
	I don't know	18	4.1	4.5	68.2
	I am involved in politics but do not identify with a party (Independent/ unaffiliated)	102	23.0	25.3	93.5
	I am not involved in politics and do not identify with a party	24	5.4	6.0	99.5
	Other	2	.5	.5	100.0
Total	403	90.8	100.0		
Missing	System	41	9.2		
Total		444	100.0		

Table 5

Which party's candidates do you more often vote for in national elections?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always Democrats	40	9.0	13.3	13.3
	Mostly Democrats	64	14.4	21.3	34.6
	More Democrats than Republicans	41	9.2	13.6	48.2
	About equal	35	7.9	11.6	59.8
	More Republicans than Democrats	36	8.1	12.0	71.8
	Mostly Republicans	64	14.4	21.3	93.0
	Always Republicans	13	2.9	4.3	97.3
	I never vote for either of these parties	8	1.8	2.7	100.0
	Total	301	67.8	100.0	
Missing	System	143	32.2		
Total		444	100.0		

Materials and Procedure

The online survey consisted of 11 voting behavior questions and five demographic questions. Eight voting behavior items were used to determine existing voting behaviors including two voting frequency questions, party preference in voting, level of election attentiveness, and attitudes about voting. Voting frequency questions were measured using a likert scale from always to never. Attitudes and attentiveness were measured on a sliding likert scale from 1 to 4 in which 1 indicated strongly disagree and 4 indicated strongly agree.

Independent voting behaviors were measured by three scenario-based questions. The first question (see Appendix) presented participants with a scenario in which they were told they favor the Independent candidate. Then, using a table, the scenario explained the percentages at which their candidate and the Republican and Democratic candidates are polling. The percentages of the Republicans and Democrats were equivalent, but the percentage each of the three candidates received was assigned at random to the participant from a set of 15 options to determine the effect of polling percentages on independent voting likelihood. The five versions of the first scenario have the independent candidate polling at 5%, 15%, 25%, 35%, and 45%, with the Republican and Democratic candidates each receiving approximately half the remaining percent. Three permutations of each percentage were created with the order of the candidates presented differently in each to avoid any order effect, therefore the participant could have received one of 15 different versions of the question. Using the same scenario, in the second question the preferred independent candidate was polling at 25%, while in one version of the two randomly assigned versions of the question, the Republican candidate was polling at 39% with the Democrat at 36% and in the other, the Democrat was polling at 39% and the Republican at 36%. This question was designed to determine whether the party with the small lead influenced

whether or not the participant would vote for their trailing independent candidate, who was still receiving a reasonable percentage of the vote. If this effect did in fact exist, it may be used to explain differences in willingness to vote for Independent candidates who are polling at lower numbers. Party affiliation items were used to determine the relationship between any discrepancies in the answers to the two versions of the questions. The third scenario presented participations with one of three polling trends over time. In each version, two poll tables were shown; one from two months ago and the other from two days before the election. In one version, the independent candidate was performing better than before, in the second the candidate was performing the same, and in the third the candidate was performing more poorly. This item was used to determine the influence of trends over time in willingness to vote for an independent candidate. Participants answered the three scenario based questions by indicating which candidate they would likely vote for given the information provided.

It should be noted that while there is a wealth of polling research, those research studies have been conducted using real-world polls, therefore there are no standard numbers for artificial poll research. Therefore, the scenario based questions for this research were constructed using theoretical support, but not standard items from existing polling research. Current polling trends support a roughly four percent difference between candidates in a three party race to be a statistical tie, given the usual margin or error (Jackman, 2005). For this reason, a one percent difference between the democratic and republican candidates in the first scenario was deemed a statistical tie, thereby removing the impact of one candidate significantly leading the other, and leaving focus on the independent candidate's position in relation to the other candidates. For the second scenario, in which the republican and democratic candidate are separated by three points, these numbers were chosen to be intentionally larger and yet still close enough to believe a win

for either candidate was plausible. Additionally, the independent candidate is not within the range of a statistical tie with the more poorly performing candidate, but is just outside this boundary, still maintaining the possibility of winning. In the third scenario, a 10% difference in likely voters for the independent candidate between the two polling periods was chosen to demonstrate a significant statistical change for the candidate, without overwhelmingly cutting into the percent of voters for the two other candidates.

Results

As with many social science questions there were two possible ways to answer the research question: the direct and the indirect routes. To answer whether polls influence Independent voting behavior respondents first were asked in a simple yes/no question if they had ever not voted for a candidate they preferred because the candidate was not doing well in the polls. Of the 279 respondents who have voted in past elections, 12.5% indicated they had in fact not voted for a preferred candidate because of the polls. However, because our decisions are so often influenced by unconscious factors, it was important to further quantify this effect through the experimental methods of the scenarios previously described.

The results of each scenario as well as other analyses are discussed below. For each of the scenarios, gender and ethnicity were examined as factors related to Independent voting tendency. Neither gender nor ethnicity were significantly related or predictive of Independent voting in any of the scenarios.

Scenario 1

A chi-square test of independence was conducted for scenario one to determine if respondents voted for their preferred independent candidate at different frequencies depending on what percentage that candidate is carrying in the polls. The five different percentage permutations were compared to determine if the versions of the five polls presented influenced whether the Independent candidate was voted for or not. To answer this question the data in the five permutations (levels) was changed from three possible values (Republican, Democrat, Independent) to binary values (2=voted Independent, 1=didn't vote Independent) and a chi square test for independence was performed.

The results were significant [$\chi^2(4, n=366) = 22.444, p < .001, \phi = .248$], with frequencies of Independent voting continually increasing in the conditions in which the Independent candidate is carrying larger percentages in the poll (see Table 6). This suggests that the percentage the Independent candidate is carrying in the polls influences whether or not an individual will vote for him/her. We must, therefore, reject the null hypothesis that polling numbers do not play a role in whether people vote for Independent candidates.

Table 6

Percent in Polls * Voted for Independent Candidate Crosstabulation

		Voted for Independent Candidate			
			No	Yes	Total
Percent in Polls	5%	Count	38	46	84
		Expected Count	27.3	56.7	84.0
	15%	Count	31	40	71
		Expected Count	23.1	47.9	71.0
	25%	Count	24	52	76
		Expected Count	24.7	51.3	76.0
	35%	Count	18	59	77
		Expected Count	25.0	52.0	77.0
	45%	Count	8	50	58
		Expected Count	18.9	39.1	58.0
Total		Count	119	247	366
		Expected Count	119.0	247.0	366.0

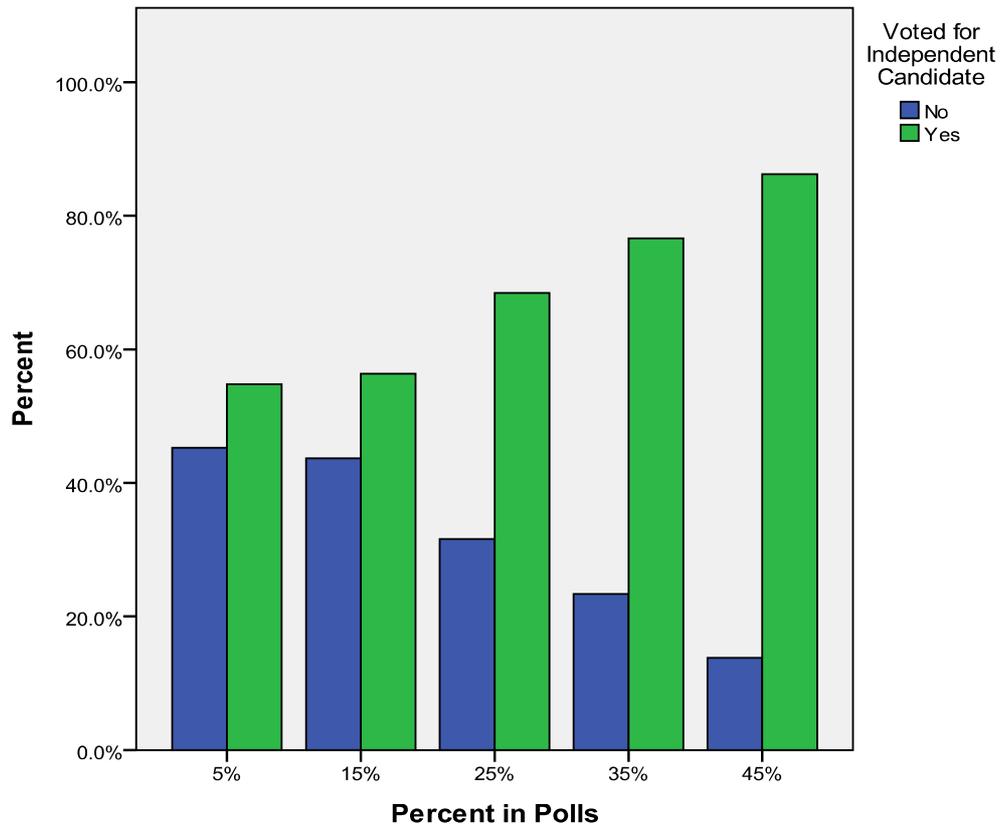


Chart 1. Vote outcomes based on percent in polls permutation

Using Excel, a line of best fit was established (see Chart 2). The trend was determined to have the highest R squared value with an exponential growth curve ($R^2 = .968$). The equation for the exponential curve is $y = 46.835e^{0.1215x}$. These findings suggest a high degree of predictability of respondent scores by level of scenario 1 using this exponential function.

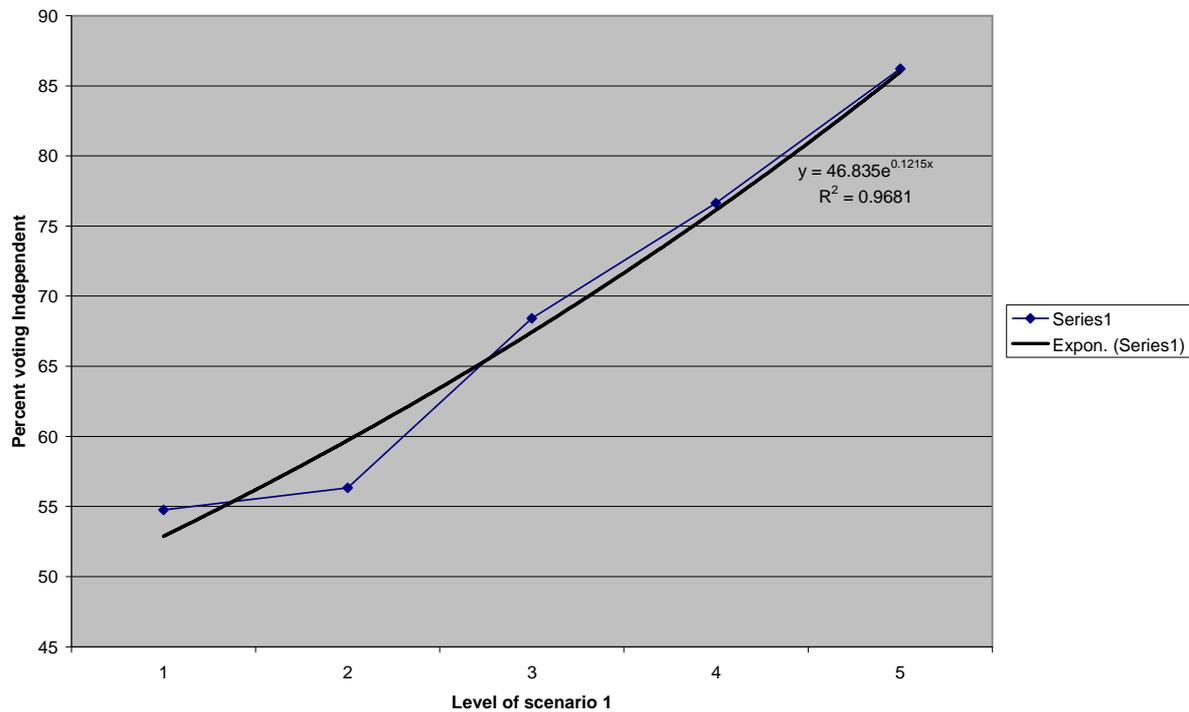


Chart 2. Line of best fit for percent voting Independent by percent carried in polls permutation

Scenario 2

A chi-square goodness of fit test was run on scenario two to determine if respondents voted differently among the three candidates depending on which preferred second choice candidate (Republican or Democrat) was in the lead. The chi-square examined the frequencies of the parties that participants voted for when the Democrat candidate was in the lead using the frequencies from the same scenario in which the Republican was in the lead as the expected frequencies. The results were significant with a small effect size [χ^2 (2, n=143) = 6.148, $p = .046$, $w=.113$], indicating that the distribution of votes was different depending upon whether the participant was told the Republican was in the lead versus the Democrat (Table 7). This result was not impacted by differences in the distribution of Republicans or Democrats between the

samples because the distributions were equal. Therefore we can reject the null hypothesis that voters would not vote differently based on whether the Republican or Democrat candidate was ahead in the polls. However, it was expected that when the Democrat or Republican candidate was higher in the polls, more respondents would vote for their secondary choice (after the preferred Independent candidate) that was in second place but stood a better chance of winning. In fact the opposite was observed. When the Democrat candidate was in the lead, more respondents voted for the Democrat (21% versus 13.8%) and when the Republican candidate was in the lead, more respondents voted for the Republican (15% versus 12.5%).

Table 7

Voting frequencies as affected by Democrat leading

	Observed N	Expected N	Residual
Voted Republican	18	21.4	-3.4
Voted Democrat	30	19.9	10.1
Voted Independent	95	101.7	-6.7
Total	143		

Expected N calculated using frequencies when Republican is leading

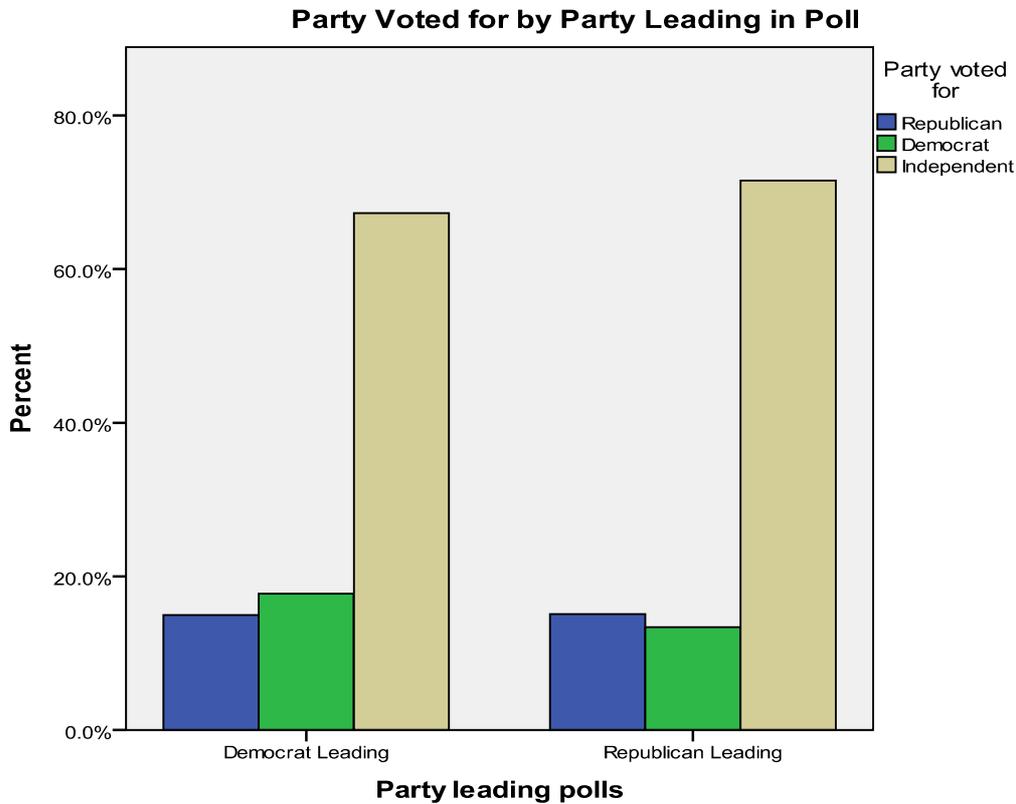


Chart 3. Party voted for by party leading in poll

Scenario 3

A chi-square test for independence was conducted on scenario three to determine if polling trends over time played a role in whether or not respondents would vote for an Independent candidate. To answer this question the data for the three permutations was changed from three possible values (Republican, Democrat, Independent) to binary values (2=voted Independent, 1=didn't vote Independent). The results were not significant [$\chi^2 (2, n=384) = 1.676$, $p = .433$, $\phi = .248$]. Although there were differences between groups in the predicted direction, because the test was not significant we have failed to reject the null hypothesis that these trends over time in polling data alone affect Independent voting behavior.

Table 8

Voted Independent by Time Group Chi-Square

		Time Group			Total	
		Down over time	Same over time	Up over time		
Voted Independent	No	Count	31	38	29	98
		Expected Count	29.3	34.5	34.2	98.0
		% within Voted Independent	.3	.4	.3	1.0
		% within Time Group	.3	.3	.2	.3
	Yes	Count	84	97	105	286
		Expected Count	85.7	100.5	99.8	286.0
		% within Voted Independent	.3	.3	.4	1.0
		% within Time Group	.7	.7	.8	.7
Total	Count	115	135	134	384	
	Expected Count	115.0	135.0	134.0	384.0	
	% within Voted Independent	.3	.4	.3	1.0	
	% within Time Group	1.0	1.0	1.0	1.0	

Demographic analyses

A chi-square test for independence was conducted on the variables of gender and party affiliation to determine if any differences in gender and political affiliation existed that might add meaning to the Independent voting discussion. The results suggested that there is in fact a difference between expected frequencies in the gender groups by party affiliation [χ^2 (6, n=347) = 17.238, p = .008, ϕ = .223]. Primary differences appear to be the proportion of males and females who identify as Republicans versus Democrats and in the number who gender identify as “prefer not to answer”, which is proportionally highest among non-Republicans/non-Democrats (see Chart 4).

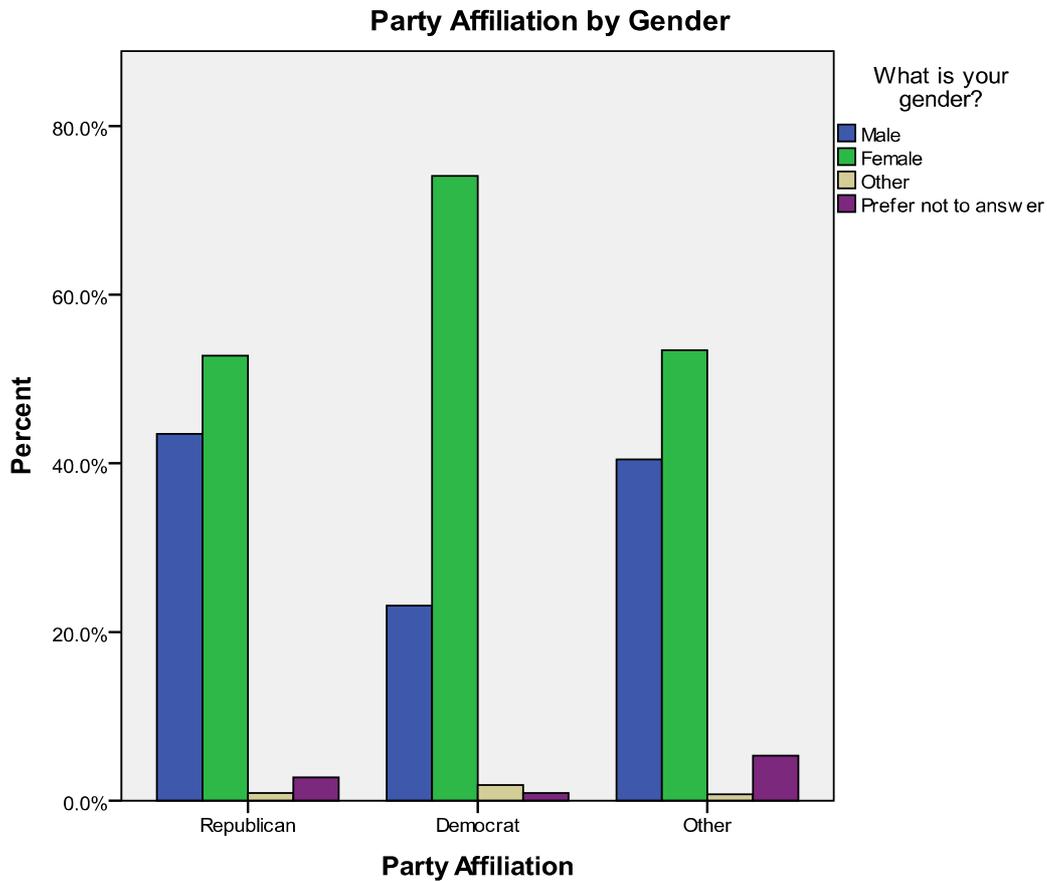


Chart 4. Party affiliation by gender

Independent T tests were conducted on ethnicity and the four likert items measuring voting beliefs. Because of small sample sizes and an overwhelming majority of white respondents, ethnicity was recoded from specific ethnic groups to white and non-white. Only the item “People tend to vote for Democrats or Republicans instead of Independents because they know what to expect if they are elected” showed significant differences between the white ($M=2.66$, $SD=.935$) and non-white groups ($M=3.068$, $SD=.895$) ($t=-2.284$, $p=.023$). This implies that non-white respondents were more likely to agree with this statement about Independents.

Other analyses

In addressing the primary research question of this study, “Do polls influence Independent voting behavior”, the roles of other variables were also considered. At the higher percentage point conditions of scenario one almost all respondents indicated they would vote for their preferred Independent candidate, therefore to understand why respondents did not vote for a preferred candidate the lowest percentage point group (5%) was studied. A logistic regression was conducted on the binary coded version (0=did vote Independent. 1=did not vote Independent) of scenario 1 in the 5% permutation, using the item “Even if I prefer an Independent candidate, I may not vote for him/her because I don't believe he/she will win (Chance of Winning)” as a predictor variable. The model was significant $\chi^2(1, n=54) = 9.027, p = .003$. The model accounted for 20.5% of the variance (Nagelkerke R squared) in voting selection. This suggests that those who agreed more strongly with the Chance of Winning item were more likely to have not voted for the preferred Independent candidate.

A Pearson correlation was conducted to determine the relationship between participants on the Chance of Winning item and the item “When I vote in national elections, I am aware of how candidates have been doing in the polls before the elections (Awareness).” The results were significant, $r=.135(226), p=.043$ though the effect size was small ($r^2=.018$). This suggests that there is a small positive relationship between voting for a candidate based on perceptions of whether the candidate will win and awareness of poll performance. A Pearson correlation suggests that the Chance of Winning item is also related to the item “I more often vote to prevent a candidate I don't like from winning than to support a candidate I do like (Vote Against)” [$r=.327(211), p<.001, r^2=.11$].

Age was also shown to be a factor in this strategic voting pattern. A Pearson correlation was conducted on the variables of Age and Chance of Winning. The results were significant, $r=.139(236)$, $p=.046$ though the effect size was small ($r^2=.019$). This confirms an expected relationship between age and more strategic based voting as opposed to ideological voting. Similarly, age was also positively related to Awareness $r=.211(241)$, $p=.001$, $r^2=.045$ suggesting older participants are more likely to vote.

To determine if partisanship was a factor in the voting decision making process, the item that asked respondents to indicate on a scale from 1 to 7 who they vote for (1=always Republicans, 4=about equal, 7=always Democrats) was converted into a 4 point scale of political partisanship. Those that indicated “always” for either party were scored as 4 and those who indicated “about equal” were scored as a 1 with the remaining points rescored as 3 and 2 as matching their voting proclivities. This scale was then compared to how participants responded to the 45% level of scenario 1 to determine if those who were still unwilling to vote for an Independent candidate carrying a large majority of the vote were simply party hard-liners who only vote for major party candidates. Using a chi-square test of independence, this scale was not found to be a significant predictor of voting behavior in the 45% condition, despite a visible trend in which 100% of those who identified in the lower half of the partisanship scale voted for the Independent candidate (see Chart 5). There was, however, an approaching-moderate effect size ($\phi = .291$). Given the trend and effect size, the lack of significance is possibly due to the small sample size ($N=38$).

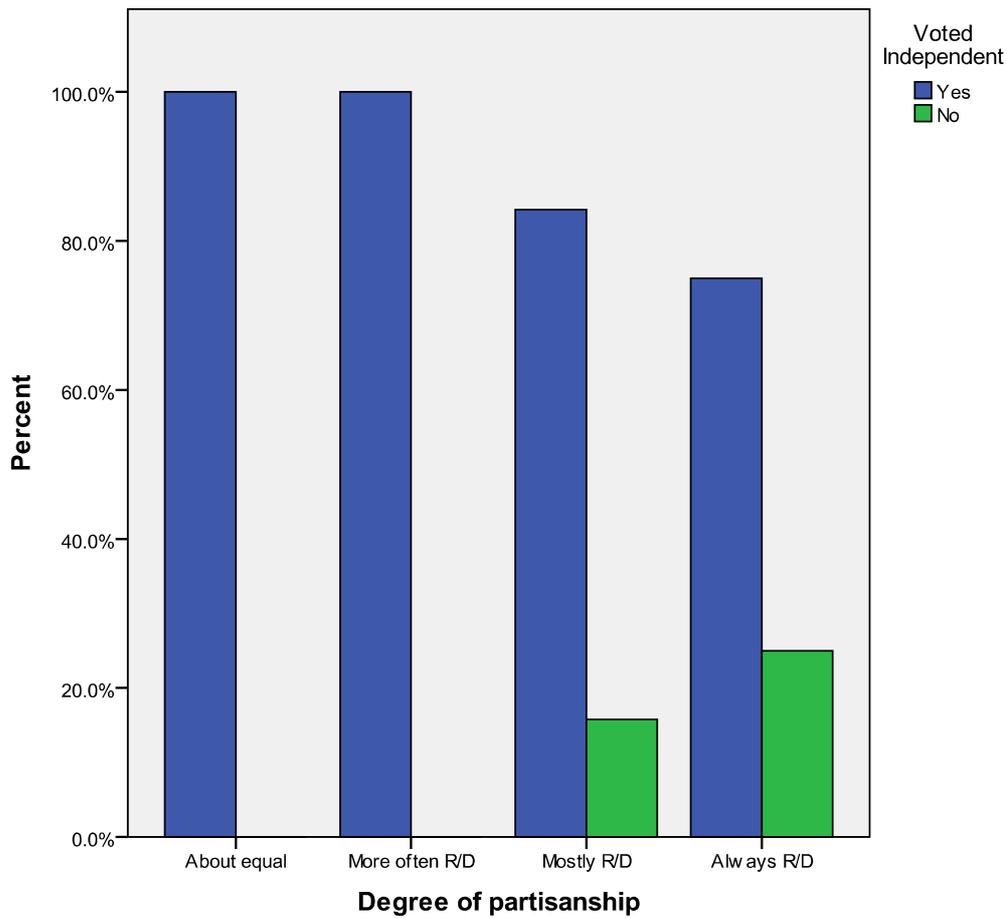


Chart 5. Independent voting by degree of partisanship

Partisanship was shown to be related to other variables, however. Using a Pearson correlation this partisanship scale was found to be significantly related to Chance of winning [$r=.181(223)$, $p=.007$] and Awareness [$r=.160(261)$, $p=.009$], though the effect sizes were small ($r^2=.033$ and $.026$ respectively). It is probable, therefore, that the degree of partisanship in voting habits is positively related to the tendency to not vote for preferred candidates that aren't perceived to have a chance of winning and to awareness of polls during elections.

Discussion

Evidence for strategic voting

The results suggest one thing above all else: voters are indeed voting strategically in a three party election when informed of polling data. The significance of the chi-square tests from scenario one and two confirm the hypotheses that, whether on a conscious level or not, voters are not just voting according to their preferred Independent candidate, but according to other factors they are evaluating in the polls. While this study cannot conclusively explain what those other factors may be, it can very strongly point to their influence.

Even before examining the experimental scenarios, it is evident that outside of this hypothetical, artificial testing environment, participants have engaged in the strategic voting that has been argued is a natural consequence of a multi-party election, in which they do not vote for their preferred candidate if the polls do not suggest they stand a chance of winning. This was demonstrated not only experimentally, but directly through the results of the question asking whether participants have voted strategically in the past, in which 11% affirmed they had. In scenario one, the significant chi-square indicated that the results of the 45% permutation as compared to the 5% permutation showed an increasing likelihood of voting for the Independent candidate, despite no other changes to the model and no significant differences between the groups of respondents. This would seem to suggest that the variations in the participants' responses were influenced solely by poll data, thereby implying the likelihood of strategic voting. Furthermore, the fact that Chance of Winning was a significant predictor of whether a participant would vote for the preferred candidate at the lower percentage variations demonstrates that participants were likely choosing a candidate based on the candidate's standing in the polls, and likelihood of winning.

In scenario two, strategic voting was evidenced by the shift between votes depending upon which candidate was in the lead. When the Democratic candidate was in the lead in the poll, with the preferred candidate trailing in third, more respondents voted for the Democratic candidate than when presented with a poll in which the Republican was in the lead (party affiliation was equal between the two variations of the item). This discrepancy points to a deliberate shift to a second-most-preferred candidate when the preferred (Independent) candidate is not likely to win.

More support for the existence of strategic voting comes from the Chance of Winning item. On the Chance of Winning likert scale item (which ranges from 1=strongly agree to 4=strong agree on a continuous sliding scale) 57.4% of respondents indicated a higher than midpoint agreement with this statement. This is noteworthy given that it was shown to be a significant predictor of whether voters will vote for a preferred Independent candidate who is performing poorly in the polls (significantly related to Independent voting likelihood in the 5% condition). Despite the fact that only 11% of respondents agreed when explicitly asked if they had not voted for a candidate who was not performing well in the polls, more than half agreed that they may not vote for a candidate if they do not believe he/she can win. The possible perceived discrepancy between these two results could be the result of unconscious motivators to vote strategically, or due to the young average age of the sample, limiting the number of elections in which respondents have participated This variable was also significantly related to poll awareness, confirming that those who may be swayed by polling data are also more likely to be following the polls.

Unlike scenario one and two, scenario three, which was not related to strategic voting, did not confirm the research hypotheses as expected. The trend of the parties' standings in the

polls over time did not significantly impact the likelihood of Independent voting. There are a couple possible explanations for this unanticipated outcome. First, it is possible that the percentages chosen were simply too low to show consistent support for the Independent candidate, or that the changes over time were not large enough margins to convey an actual change in likelihood of winning, and were instead viewed essentially as margins of error. To address this possibility, future research should examine this phenomena using a higher percentage for the Independent candidate in the most recent poll. It is also possible that participants simply disregarded the older poll and based their decision on the current polls, which showed the same percentage across all the three levels of the experimental design. If this was the case, then it is understandable that there would not be a significant difference between the groups.

Demographic issues

Ultimately, some voters, like in this study, may choose not to vote at all, however others will vote for a second-most-preferred candidate, as is evidenced by the experiment and the body of existing literature on strategic voting. The concern for community psychologists is the impact of the effect of the polls. For example, this study examined whether minority populations would be disproportionately affected by strategic voting behavior. Gender, ethnicity and age were all examined as they related to the tendency to vote strategically. In this case, there was no noticeable difference between these groups in likelihood to vote for the preferred Independent candidate. This may have been due to the lack of information provided for the candidate. Identified as only an Independent candidate, this candidate could represent anything the respondent chose to cognitively assign to it, meaning there is no predictable gender, age or ethnic bias attached to the candidate. There were, as might be expected, gender, ethnic and age

differences in candidates voted for (outside of the strategic trend studied), however, it is, as happens in real elections, expected that these differences exist. However, these differences exist consistently across the different experimental levels and are therefore not a methodological threat to observing the strategic trend.

While they did not affect Independent voting, in the area of political identity, demographics did play a role. Gender was examined across the different political parties (Republican, Democratic, Other) and it was discovered, though not significant, that those who identified as “prefer not to answer” on the gender variable were more likely to identify as in one of the “Other” categories of political affiliation. Not surprisingly, females were also more likely to identify as Democrats than Republicans while males were more likely to identify as Republicans. Across ethnicities, however, there was no noticeable difference between political affiliations.

Political party was also examined as a possible confounding variable to the strategic voting trend. Logistic regressions were conducted for all three scenarios but in each case the results came back strongly insignificant, suggesting that whether respondents identified as Republicans, Democrats or anything else made no difference in their likelihood of voting for their preferred Independent candidate. This is not entirely surprising given that participants were instructed with a preferred candidate and that the distribution of Republicans and Democrats was equivalent, as was the polarization of each party. As a result, any effects that may have occurred as a result of political “hard-liners” could theoretically be balanced by the other side.

Methodology issues

One important question that was addressed in this research was whether hypothetical candidates can be used to measure the influence of polls. Previous research into the impact of

polls had been largely focused on historical data, looking at the results of national elections. There was a concern, therefore, that simply telling participants which candidate they preferred and giving them three parties to choose from without any other information (stance on issues, etc.) would not result in any variability in responses; participants would almost all choose the candidate they were told was their favorite regardless of what percentage the candidate was carrying in the polls. In principle, given no other information, all participants would be expected to vote for the candidate the experiment instructed them that they preferred. However, while there was a definite favoring of the Independent candidate (which was to be expected given the instructions) as discussed before, there were significant differences between the different five levels of scenario 1 regarding whether the Independent candidate was selected. This finding by itself is noteworthy because if participants display a significant level of variability in their responses due only to changes in poll standings, there exists an opportunity for the application of this hypothetical methodology in research instead of relying on only archival data.

One issue that must be addressed with this research is the inflated Independent voting numbers. Even at the lowest level (5% in the poll) of scenario one, nearly 55% of respondents indicated they would vote for the Independent candidate. Obviously, it was not the intent of this research to suggest that this result in any way matches real world expectations for an Independent candidate with five percent support in the polls. Rather, this research was intended to demonstrate the *percentage* of support that could be expected from a base of theoretical third party candidate supporters given certain different standings in the polls. If voters were actually voting based on candidate preference alone, all of the permutations of scenario one should have shown nearly 100% support for the Independent candidate. Therefore, what should be considered

is not simply the total percent of the respondents who voted Independent is any of the groups, but instead the differences between the groups in the percent of respondents who voted Independent.

On the other side, is also noteworthy that the preferred Independent candidate carrying 45% of the vote in a poll was still only selected by 86% of respondents. With this sizeable lead, it is curious that there is still 14% of the sample that would not vote for the assigned preferred candidate. There are a few theoretical explanations for this occurrence. First, despite the instructions, there are presumably a number of voters who only vote along party lines and will not vote for a non-Republican or non-Democratic candidate. This is supported, though not confirmed, by the results examining the relationship between partisanship and the results of the 45% group, in which it was found that those who identified themselves in the partisanship question as having voted for either party “about equally” or “slightly more” often chose the Independent candidate 100% of the time when that candidate was carrying 45% of the vote. Those who identified as having voted mostly Republican or Democrat or always Republican or Democrat were more likely to vote for either the Republican or Democrat candidates, however the results were not statistically significant [effect size (ϕ) = .248]. The fact that these more partisan voters accounted for all the participants that did not choose the Independent strongly supports the notion that it was partisanship alone that explains the 14% non-Independent voters in this case.

However, there may be more strategic thinking involved that explains this 14%. The second theory posits that perhaps, because this is a senatorial election, voters are thinking past preferred candidates and instead to control of the senate. What happens in the senate is often determined to some degree along party lines; therefore it is the party with more senators that has more control over what passes and what does not. Voting for an Independent candidate may be

seen as more risky because the candidate does not have a party affiliation that will make him/her as predictable or easily influenced by either party if elected.

A third, also strategic, possibility is that respondents still considered an Independent candidate with 45% of the probable vote to be risky in terms of the probability of winning. Because of the infrequency of successful Independent campaigns, those viewing a poll portraying an Independent candidate receiving 45% of the vote may have been likely to question the predictive validity of the poll. Unfortunately, this research did not measure perceptions of the validity of polls, which is recommended for future research of this nature.

Limitations

Although this study largely found the outcomes that were expected, there were numerous barriers to answering questions within the study and to making generalizations outside of this research. First, the sample was not reflective of the general population. Because the sample was largely university faculty, staff and students, the sample skewed more educated, more female, more white, and younger than the normal voting population. Each of these presumably had their own impact on the results. For example, when examining potential differences in responding due to ethnicity, ethnicity had to be limited to white or non-white due to small sample sizes of each ethnicity. Because not every ethnic minority should be presumed to think or act in the same manner, it is not methodologically appropriate to generalize findings across all these ethnicities. In fact, there may have been differences in some of the items that were not discovered because of opposing differences between the ethnic groups that were cancelling out any otherwise observable trends.

Although the sample did skew younger and more female, this bias did not appear to significantly impact the research. All trends found in the research (affecting Independent voting)

held consistent across gender and age, except those discussed for the likert scale items, which were specifically examined for gender differences but did not impact Independent voting.

The majority of the limitations in this study were methodological. First, it was discovered after data collection that demographic data were collected after some of the filtering items, resulting in an inability to examine demographic differences for those who indicated they are not registered to vote or do not intend to vote in the future. Second, there were many items that, in retrospect, would have been valuable to include in the survey for interpretation and future application purposes. For example, the survey failed to ask whether respondents would ever vote for an Independent candidate. While this information is not entirely essential given that any respondents who indicated “no” would hopefully be distributed equally across the groups of the experimental conditions, it would aid in understanding of such findings such as the 14% of respondents who did not vote for the Independent candidate when he/she received 45% of the likely vote.

Another item of interest would have measured voter suppression. If the survey had asked participants whether they had ever not voted or would not vote as a result of their expectations about outcomes, presumably informed by polling data, a more rich discussion of policy and disparities could have taken place.

Further research

This study has opened many possible venues for future consideration. From methodology, to political theory, to psychology, there are numerous topics to be examined further. The methodology used in this study has shown to be useful in examining polling in a more controlled, internally valid setting. In the absence of many other confounding variables

such as candidates' race, gender, political beliefs, religious affiliations and everything else, voting behavior alone can be studied using this hypothetical model in place of archival data.

While the findings of this study are generally in line with existing political science research, the experimental outcomes are new to this field. Not only does this methodology present opportunities for political science research, but the numerical trend data for Independent voting as a function of poll data could be invaluable. Further investigation of this function could add to our understanding of the psychological strategies behind voting, which could benefit all parties by informing decisions such as when to share polling data and what effects it will have. In general, however, perhaps the most important result of this research is to provide empirical support for what researchers have anecdotally addressed for years – the tendency to not vote for a third party candidate because he/she “can’t win”.

What should be considered by community psychologists are additional policy issues that are raised by this research. For example, if, as this study suggests, voters are acting strategically in their Independent voting habits by not voting for their preferred Independent candidate, what is the potential impact of deterring Independent candidates from running or inhibiting the chances of Independent candidates at winning? Additionally, is the perception that a preferred candidate can't win negatively impacting voter turnout? It should also be examined whether or not community engagement, civic participation and empowerment are being negatively impacted by this phenomenon, as it is clear that voters are not acting according to preference, but according to calculations – which may contribute to declines in any of these areas. The answers to these questions may justify a discussion regarding limits on poll data reporting, similar to those already in practice across the globe.

In addition, it is the goal of this research to prompt a larger discussion about the role of polls in our systems. Their existence is a natural result of our democracy and free press that are the hallmarks of the very government they influence, but perhaps it is also natural to question their purpose. Given the findings of this study and the many before it, their purpose and influence should be discussed. Affected by many levels of social cognition, it could be argued that their end result is not what individuals believe is in their own best interest, or the best interest of their communities, rather a distorted gamble of inevitability and self-preservation. While no conclusion is supported here for the cessation of all political polls, like all academic works, this research only hopes to inspire further conversation.

REFERENCES

REFERENCES

- Abramson, P. R., Aldrich, J. H., Paolino, P., & Rohde, D. W. (1992). "Sophisticated" Voting in the 1988 Presidential Primaries. *American Political Science Review*, 86(01), 55-69.
- Achen, C. H., & Shively, W. P. (1995). *Cross-level inference*. University of Chicago Press.
- Aldrich, J. H. (1993). Rational choice and turnout. *American Journal of Political Science*, 246-278.
- Babad, Elisha, and Eitan Yacabos (1993), "Wish and Reality in Voters' Predictions of Election Outcomes, *Political Psychology*, 14 (March), 37-54.
- Bartels, L. M. (1988). *Presidential primaries and the dynamics of public choice*. Princeton University Press.
- Black, J. H. (1978). The multicandidate calculus of voting: Application to Canadian federal elections. *American Journal of Political Science*, 609-638.
- Blais, A., & Nadeau, R. (1996). Measuring strategic voting: A two-step procedure. *Electoral Studies*, 15(1), 39-52.
- Bollinger, W., & Lund, D. (1988). Gallup in Central America-Mixing Polls and Propaganda. *Nation*, 246(18), 635-638.
- Brown, C. E. (1982). A false consensus bias in 1980 presidential preferences. *The Journal of Social Psychology*.
- Cain, B. E. (1978). Strategic voting in Britain. *American Journal of Political Science*, 639-655.
- Campbell, J. E. (1986). Presidential coattails and midterm losses in state legislative elections. *American Political Science Review*, 80(01), 45-63.
- Catt, H. (1989). Tactical voting in Britain. *Parliamentary Affairs*, 42(4), 548-559.
- Cox, G. W. (1997). *Making votes count: Strategic coordination in the world's electoral systems* (Vol. 7). Cambridge: Cambridge University Press.
- Cox, G. W. (1994). Strategic voting equilibria under the single nontransferable vote. *American Political Science Review*, 88(03), 608-621.
- Cox, G. W. (1984). Strategic Electoral Choice in Multi-Member Districts: Approval Voting in Practice? *American Journal of Political Science*, 722-738.
- Curtice, J., & Steed, M. (1988). Statistical appendix. *The British General Election of 1987*, 316-362.

- Dimitrova, D. V., Shehata, A., Strömbäck, J., & Nord, L. W. (2011). The effects of digital media on political knowledge and participation in election campaigns: Evidence from panel data. *Communication Research*, 0093650211426004.
- Dobell, W. M. (1986). Updating Duverger's Law. *Canadian Journal of Political Science*, 19(03), 585-595.
- Duverger, M., North, B., & North, R. (1954). *Political Parties Their Organization and Activity in the Modern State: Translated by Barbara and Robert North*. Methuen & Company Limited.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Evans, G., & Heath, A. (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.
- Feddersen, T. J., Sened, I., & Wright, S. G. (1990). Rational voting and candidate entry under plurality rule. *American Journal of Political Science*, 1005-1016.
- Ferrell, M. E., Areni, C. S., & Wilcox, J. B. (1993). The influence of reported poll results on public opinion: A theoretical perspective and some preliminary findings. *Unpublished manuscript, Texas Tech University*.
- Festinger, L.: 1957, A Theory of Cognitive Dissonance (Stanford University Press: Stanford, California)*.
- Finkel, S. E., Guterbock, T. M., & Borg, M. J. (1991). Race-of-Interviewer Effects in a Preelection Poll Virginia 1989. *Public Opinion Quarterly*, 55(3), 313-330.
- Fiorina, M. P. (1981). Retrospective voting in American national elections.
- Fleitas, D. W. (1971). Bandwagon and underdog effects in minimal-information elections. *American Political Science Review*, 65(02), 434-438.
- Fuchs, D. A. (1966). Election-day radio-television and western voting. *Public Opinion Quarterly*, 226-236.
- Galbraith, J. W., & Rae, N. C. (1989). A test of the importance of tactical voting: Great Britain, 1987. *British Journal of Political Science*, 19(01), 126-136.
- Granberg, D., & Brent, E. (1980). Perceptions of Issue Positions of Presidential Candidates: Candidates are often perceived by their supporters as holding positions on the issues that are closer to the supporters' views than they really are. *American Scientist*, 617-625.
- Granberg, D., & Brent, E. (1983). When prophecy bends: The preference–expectation link in US presidential elections, 1952–1980. *Journal of Personality and Social Psychology*, 45(3), 477.

- Granberg, D., & Seidel, J. (1976). Social judgments of the urban and Vietnam issues in 1968 and 1972. *Social Forces*, 55(1), 1-15.
- Green, D. P., Shapiro, I., & Shapiro, I. (1994). Pathologies of rational choice theory: A critique of applications in political science (p. 3). New Haven: Yale University Press.
- Heider, F. (1946). Attitudes and cognitive organization. *The Journal of psychology*, 21(1), 107-112.
- Hoch, S. J. (1987). Perceived consensus and predictive accuracy: The pros and cons of projection. *Journal of Personality and Social Psychology*, 53(2), 221.
- Jackman, R. W. (1993). Response: Response to Aldrich's "Rational Choice and Turnout": Rationality and Political Participation. *American Journal of Political Science*, 37(1), 279-290.
- Jackman, S. (2005). Pooling the polls over an election campaign. *Australian Journal of Political Science*, 40(4), 499-517.
- Jackson, J. E. (1983). Election night reporting and voter turnout. *American Journal of Political Science*, 615-635.
- Johnston, R. J., & Pattie, C. J. (1991). Tactical voting in Great Britain in 1983 and 1987: an alternative approach. *British Journal of Political Science*, 21(01), 95-108.
- Kernell, S. (1977). Presidential popularity and negative voting: An alternative explanation of the midterm congressional decline of the president's party. *American Political Science Review*, 71(01), 44-66.
- Key, V. O., & Cummings, M. C. (1966). *The responsible electorate* (p. 150). Belknap Press of Harvard University Press.
- Kinder, D. R. (1978). Political person perception: The asymmetrical influence of sentiment and choice on perceptions of presidential candidates. *Journal of Personality and Social Psychology*, 36(8), 859.
- King, P. T. (1997). The press, candidate images, and voter perceptions. *Communication and democracy: Exploring the intellectual frontiers in agenda-setting theory*, 29-40.
- Laponce, J. A. (1966). An experimental method to measure the tendency to equilibrium in a political system. *American Political Science Review*, 60(04), 982-993.
- Lavrakas, P. J., & Holley, J. K. (1991). *Polling and presidential election coverage* (Vol. 127). Sage Publications, Inc.

- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1968). The peoples choice: how the voter makes up his mind in a presidential campaign.
- Leys, C. (1959). Models, theories, and the theory of political parties. *Political Studies*, 7(2), 127-146.
- Ludwin, W. G. (1978). Strategic voting and the Borda method. *Public Choice*, 33(1), 85-90.
- Marsh, C. (1985). Back on the bandwagon: The effect of opinion polls on public opinion. *British Journal of Political Science*, 15(01), 51-74.
- McKelvey, R. D., & Ordeshook, P. C. (1982). Two-Candidate Elections without Majority Rule Equilibria An Experimental Study. *Simulation & Gaming*, 13(3), 311-335.
- Meffert, M. F., & Gschwend, T. (2011). Polls, coalition signals and strategic voting: An experimental investigation of perceptions and effects. *European Journal of Political Research*, 50(5), 636-667.
- Mendelsohn, H. (1966). Election-day broadcasts and terminal voting decisions. *Public Opinion Quarterly*, 30(2), 212-225.
- Michalos, A. C. (1991). Ethical considerations regarding public opinion polling during election campaigns. *Journal of Business Ethics*, 10(6), 403-422.
- Myerson, R. B., & Weber, R. J. (1993). A Theory of Voting Equilibria. *American Political Science Review*, 87(01), 102-114.
- Navazio, R. (1977). An experimental approach to bandwagon research. *Public Opinion Quarterly*, 41(2), 217-225.
- Niemi, R. G., & Abramowitz, A. I. (1994). Partisan redistricting and the 1992 congressional elections. *The Journal of Politics*, 56(03), 811-817.
- Palfrey, T. R. (2002). Implementation theory. *Handbook of game theory with economic applications*, 3, 2271-2326.
- Petrocik, J. R. (1991). Divided Government: Is it all in the Campaigns?. *The politics of divided government*, 13-38.
- Piven, F. F., & Cloward, R. (2012). *Regulating the poor: The functions of public welfare*. Vintage.
- Riker, W. H. (1982). *Liberalism against populism: A confrontation between the theory of democracy and the theory of social choice*. San Francisco: Freeman.

Riker, W. H., & Ordeshook, P. C. (1968). A Theory of the Calculus of Voting. *American political science review*, 62(01), 25-42.

Rosenberg, M. J., & Abelson, R. P. (1960). An analysis of cognitive balancing. *Attitude organization and change: An analysis of consistency among attitude components*, 3, 112-163.

Ross, L., Greene, D., & House, P. (1977). The false consensus phenomenon: An attributional bias in self-perception and social perception processes. *Journal of Experimental Social Psychology*, 13(3), 279-301.

Schuman, H., & Presser, S. (1981). *Questions and answers in attitude surveys: Experiments on question form, wording, and context*. Sage.

Spafford, D. (1972). Electoral systems and voters' behavior: comment and a further test. *Comparative Politics*, 5(1), 129-134.

Sudman, S. (1986). Do exit polls influence voting behavior?. *Public Opinion Quarterly*, 50(3), 331-339.

Teer, F., & Spence, J. D. (1973). *Political Opinion Polls*. Hutchinson Radius.

Tesser, A., Campbell, J., & Mickler, S. (1983). The role of social pressure, attention to the stimulus, and self - doubt in conformity. *European Journal of Social Psychology*, 13(3), 217-233.

Tuchman, S., & Coffin, T. E. (1971). The influence of election night television broadcasts in a close election. *Public Opinion Quarterly*, 35(3), 315-326.

Yang, M., Goldstein, H., & Heath, A. (2000). Multilevel models for repeated binary outcomes: attitudes and voting over the electoral cycle. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 163(1), 49-62.

APPENDIX

APPENDIX

Scenario 1:

Imagine that today you will be voting for Kansas' senator in the national election. Consider for the purposes of this survey that the candidate you have preferred so far has been the **INDEPENDENT** candidate. The most recent poll of 1000 likely voters in Kansas suggests that the candidates are polling as follows:

Party of candidate	Percent who plan to vote for candidate
Independent	25%
Republican	38%
Democrat	37%

Given all this information, select the candidate you will be voting for:

Republican

Democrat

Independent

Scenario 2:

Imagine that today you will be voting for Kansas' senator in the national election. Consider for the purposes of this survey that the candidate you have preferred so far has been the **INDEPENDENT** candidate. The most recent poll of 1000 likely voters in Kansas suggests that the candidates are polling as follows:

Party of candidate	Percent who plan to vote for candidate
Democrat	39%
Republican	36%
Independent	25%

Given all this information, select the candidate you will be voting for:

Republican

Democrat

Independent

Scenario 3:

Imagine that today you will be voting for Kansas' senator in the national election. Consider for the purposes of this survey that the candidate you have preferred so far has been the **INDEPENDENT** candidate.

A poll conducted two months ago of 1000 likely voters in Kansas suggested that the candidates were polling as follows:

Party of candidate	Percent who plan to vote for candidate
Democrat	28%
Republican	32%
Independent	40%

The most recent poll from two days ago suggested that the candidates were polling as follows:

Party of candidate	Percent who plan to vote for candidate
Democrat	35%
Republican	35%
Independent	30%

Given all this information, select the candidate you will be voting for today:

Republican

Democrat

Independent