

## THE DYNAMICS OF ELECTORAL INTEGRITY A THREE-ELECTION PANEL STUDY

ANDREW M. DANILLER\*

DIANA C. MUTZ

**Abstract** When political leaders are chosen by democratic means, the electoral process supposedly legitimates their authority, whatever the outcome. Nonetheless, disliked democratic outcomes may result instead in denigration of the electoral process. If positive reactions to winning and negative reactions to losing ultimately balance one another out, then perceived electoral integrity should remain roughly constant in a highly competitive political environment such as the United States. However, little is known about the symmetry or duration of these effects. Using panel data spanning more than nine years, we examine individual perceptions of electoral integrity across three American presidential election cycles. Our conclusions suggest that the effects of winning versus losing are not symmetric. Moreover, effects on people's perceptions of electoral integrity are surprisingly persistent over time. We find that repeated losing has especially important long-term consequences for how citizens view elections.

Americans face a potential crisis of faith in the electoral process. From allegations of voter fraud and voter suppression to Russian hacking, Americans are doubtful about the fundamental fairness and security of their elections. These developments are troubling because long-term democratic stability requires that citizens believe their elections are conducted fairly (Tyler 2013). Moreover, the perception that elections are just strengthens other forms of democratic legitimacy, producing confidence in institutions and leaders (Norris 2014). A lack of faith in elections is a lack of faith in the most fundamental of democratic principles.

ANDREW DANILLER is a George Gerbner Postdoctoral Fellow at the Annenberg School for Communication at the University of Pennsylvania, Philadelphia, PA, USA. DIANA C. MUTZ is the Samuel A. Stouffer Professor of Political Science and Communication and director of the Institute for the Study of Citizens and Politics at the University of Pennsylvania, Philadelphia, PA, USA. \*Address correspondence to Andrew Daniller, Annenberg School for Communication, University of Pennsylvania, 3620 Walnut St., Philadelphia, PA 19104, USA; email: [adaniller@asc.upenn.edu](mailto:adaniller@asc.upenn.edu).

doi:doi:10.1093/poq/nfz002

© The Author(s) 2019. Published by Oxford University Press on behalf of the American Association for Public Opinion Research. All rights reserved. For permissions, please e-mail: [journals.permissions@oup.com](mailto:journals.permissions@oup.com)

Numerous factors contribute to citizens' perceptions of the quality of the electoral process, ranging from overt fraud and corruption, to the role of money in a country's electoral system, to the design of the ballot (Wand et al. 2001; Atkeson and Saunders 2007; Herrnson et al. 2008; Hall, Monson, and Patterson 2009). Concerns of this kind should influence perceptions of electoral integrity. But it is more troubling if perceptions of electoral integrity depend not only on the quality of the process, but also on the outcome.

Election outcomes are known to produce gaps between winners and losers (those who supported the winning candidate vs. the losing candidate, respectively) in levels of satisfaction with democracy, perceived system responsiveness, and related measures of legitimacy (e.g., Nadeau and Blais 1993; Anderson et al. 2005; Esaiasson 2011). However, the effects of winning and losing on perceptions of the electoral process have only recently received scholarly attention (Sances and Stewart 2015). By testing four hypotheses involving the effects of winning and losing on electoral integrity, we shed light on the conditions under which the American electoral process is likely to build support for its electoral system over time, and under what conditions it may be put at risk.

The data best suited to address these questions—namely, panel data involving more than one election cycle—are quite rare. We take advantage of a single panel spanning the 2008, 2012, and 2016 American presidential elections. By interviewing the same survey respondents repeatedly across a period of more than eight years, we bring six waves of representative national panel data to bear on these questions.

## **Why Winning and Losing Have Consequences for Electoral Integrity**

Ideally, if people are capable of separating process from outcome, whether one's candidate wins or loses should not affect perceptions of the integrity of the electoral process. However, research suggests that outcomes do affect some forms of perceived legitimacy. After an election, winners and losers differ in perceptions of system responsiveness, satisfaction with democracy, and trust in government (Banducci and Karp 2003; Keele 2005; Blais and Gélinaud 2007; Moehler 2009; Singh, Karakoç, and Blais 2012).

In recent American presidential elections, losers have been notably less likely to believe that votes were counted accurately than winners (Sances and Stewart 2015). Americans' degrees of concern about allegations of voter fraud are closely tied to the perceived effects of the alleged fraud on a preferred candidate's chances of winning (Beaulieu 2014). Americans on the losing side of recent elections also are more likely to believe in theories suggesting wrongdoing by their successful political opponents (Miller, Farhart, and Saunders 2018). Panel data allow us to look beyond cross-sectional patterns

of association to examine how individuals' perceptions change from before to after an election outcome is known.

We hypothesize that in general, losers should become less confident that elections produce fair outcomes, whereas winners should gain confidence in the process. Studies of other forms of legitimacy lend support to this central hypothesis. In addition, cognitive consistency theories suggest a potential need for losers to adjust their cognitions to account for the fact that the "best" candidate did not win. If individuals have an internal drive to maintain consistency among their cognitions in situations where they do not directly control an outcome (Festinger 1957; Festinger and Carlsmith 1959), then one of these attitudes must change to eliminate the dissonance. Changing one's attitudes toward the legitimacy of the electoral process is not the only way for losers to reduce dissonance, but it is a likely way to do so given that one cannot go back and change one's vote. In addition, the act of voting itself may strengthen the loyalty one feels toward a given choice, thus making an undesirable outcome even more difficult to explain (Dinas 2014).

But what about winners? Given that the outcome is consistent with their vote choice, winners may feel compelled to change any negative attitudes toward the electoral process. In this sense, negative attitudes toward a process that produces the "correct" outcome are just as inconsistent as positive attitudes toward a process that produces an undesirable outcome.

In addition to cognition, partisans have emotional investments in elections. Partisans' levels of happiness immediately after a presidential election are strongly affected by being a loser in particular (Pierce, Rogers, and Snyder 2016). Thus both affect and cognition recommend our hypotheses about effects on electoral integrity.

H1: Voting for the winning candidate in a presidential election increases perceptions of electoral integrity, while voting for a losing candidate will decrease perceptions of electoral integrity.

#### SYMMETRY VERSUS ASYMMETRY

We further hypothesize that losing will generally have greater effects than winning. In other words, the positive effects of winning will not be enough to cancel out the negative effects of losing. Psychological evidence suggests that "people hate to lose even more than they love to win" (Mercer 2005, 3). In evolutionary psychology, appetitive (pleasing) stimuli are argued to have weaker effects than aversive (unpleasant) stimuli because risk sensitivity is assumed to be more evolutionarily adaptive than risk taking. In addition, people's physiological responses are greater for negative information (Hamm, Schupp, and Weike 2003), and attention is biased toward aversive stimuli (Bannerman, Milders, and Sahraie 2010). Moreover, people's cognitive responses tend to be greater for negative information (Miltner et al. 2004; Neuberg, Kenrick, and

Schaller 2011). To the extent that these myriad human tendencies apply to the negative experience of voting for an election loser, losing should have greater negative effects on how citizens feel about the election process than winning should have positive effects.

H2: The negative effects of losing on perceptions of electoral integrity will be larger in magnitude than the positive effects of winning.

On the other hand, if the effects of winning and losing on electoral integrity are roughly symmetric—or the positive effects of winning are systematically greater than the negative effects of losing—then there is little cause for concern that the election process will come to be perceived as increasingly illegitimate. Unfortunately, the typical focus on the winner-loser “gap” based on aggregate levels of support for democracy immediately after an election makes it difficult to assess the direction of effects. Esaisson’s (2011) overview of 38 national election studies suggests that the most common aggregate pattern is for winners to become more positive in the short term, whereas losers either retain the level of system support they had before the election or report an increase in their levels of perceived legitimacy. In either case, elections should build higher levels of aggregate system support.<sup>1</sup>

#### THE CONTEXT OF WINNING/LOSING

Because of inconsistent findings in studies examining how winning and losing affect satisfaction with democracy, some suggest that the longer-term context conditions these reactions (Anderson et al. 2005; Curini, Jou, and Memoli 2012; Miller, Farhart, and Saunders 2018). According to aggregate cross-sectional studies of satisfaction with democracy, winners are more satisfied with democracy if they had previously experienced a loss than if the win was their second in a row (Curini and colleagues 2012). However, because these findings refer to absolute levels rather than changes in satisfaction over time, our question remains unanswered.

Alternative attributions of responsibility for winning and losing play a key role in our theoretical expectations. Repeated losses pose a uniquely difficult “attribution crisis” for supporters of the losing party. Partisans can easily rationalize repeated wins by virtue of the inherent superiority of their party. And whereas a single loss can be attributed to a weaker-than-usual candidate or a poorly run campaign, repeated losses suggest that the process itself is somehow rigged against the losing side. Thus we anticipate that repeated losing will have increasingly negative effects on perceptions of electoral integrity.

The American two-party system makes repeated losing and repeated winning highly likely due to chance alone. In a strong two-party system, winners and losers are more clearly defined than in multiparty systems where

1. Results from cross-sectional analyses are similarly mixed (e.g., Craig et al. 2006).

coalitions make it possible for a voter to be part of a winning coalition even when he or she is not particularly enthusiastic about the major party (Singh, Karakoç, and Blais 2012). Probabilistically, two heads or two tails in a row calls for little explanation other than chance alone. Nonetheless, we suspect that repeated losses will cast doubt on the fairness of the process among the mass public. Repeated losing calls for defensive attributions of responsibility, and thus involves adjustments to one's views of the process itself.

H3: Repeated losses will lead to subsequently larger decreases in perceptions of electoral integrity, whereas repeated wins will produce gains of decreasing magnitude.

#### DURATION OF EFFECTS

No scholarly consensus exists as to whether the effects of winning and losing on satisfaction with democracy are fleeting, emotional reactions or more substantive alterations in how citizens view democracy.<sup>2</sup> If the negative effect of losing represents temporary disappointment, then lower evaluations of the electoral process are unlikely to persist. In a study of postelection happiness, losers rebounded to their previously held levels of happiness within a week after the election (Pierce, Rogers, and Snyder 2016). However, a cognitive consistency-based explanation suggests that people will update their beliefs about the quality of the electoral process to match the outcome of the election. These effects should logically persist until subsequent elections give people reason to re-adjust their perceptions of the process. In general, people's reactions to campaign information are short-lived (e.g., Gerber et al. 2011; Hill et al. 2013; Bartels 2014; Sides and Vavreck 2014). Whether this short-term duration also obtains with respect to postelection legitimacy remains to be seen.

H4: The effects of winning and losing on perceived electoral legitimacy will fade following the immediate postelection period.

## Data and Methods

Our unique panel study, interviewing the same respondents both before and after the presidential elections in 2008, 2012, and 2016, allows us to conduct powerful tests of all four of these hypotheses. Data for these representative national surveys occurred before and after the 2008,<sup>3</sup> 2012, and 2016

2. In studies of satisfaction with democracy, Anderson and LoTempio (2002) predicted that effects should fade with time but found no discernible pattern (see also Huseby 1999; Anderson et al. 2005; Craig et al. 2006). In a Swedish citizen panel, Dahlberg and Linde (2015) found stable, persistent effects over time.

3. Data are from the publicly available National Annenberg Election Study panel accessible at <http://www.annenbergpublicpolicycenter.org/political-communication/naes/>.

presidential elections,<sup>4</sup> by GfK Ltd., an organization that conducts online surveys with representative probability samples recruited using random-digit dialing and address-based sampling. Selected households that lack internet are given free internet access to participate.<sup>5</sup>

What makes these three panel studies unique is that the 2012 panel was drawn as a representative subset ( $n = 2,471$ ) of the large 2008 panel sample ( $n = 10,472$ ), and the 2016 sample ( $n = 1,227$ ) was a subset of the 2012 panel. With data from all three studies combined, we are able to examine not only pre/postelection change in perceptions of electoral integrity across three different elections, but also the persistence of these changes from the end of one election to the beginning of the next campaign.

To operationalize *Perceptions of Electoral Integrity*, we required identical measures in pre- and postelection surveys that were explicitly evaluations of the electoral process. Because single survey questions are notoriously unreliable, and their use is likely to have contributed to the highly variable and inconsistent findings on effects of winning and losing on satisfaction with democracy (see Canache, Mondak, and Seligson 2001; Linde and Ekman 2003), we used a multi-item index. By combining multiple questions tapping the same underlying concept, we have greater assurance that the peculiarities of individual questions are not influencing our findings.

Toward these ends, we created an index of *Perceptions of Electoral Integrity* comprising three questions focused specifically on elections that were included in the pre- and postelection waves of all three studies. One question borrowed from the Comparative Study of Electoral Systems asked whether elections in one's country are conducted fairly. This item has been utilized in numerous studies of electoral integrity (e.g. Anderson et al. 2005; Farrell and McAllister 2006; Birch 2010). A second item drawn from the American National Election Studies asks whether elections make the government listen to the people. A third question, adapted from an Opinion Dynamics Poll, addresses electoral integrity by asking whether the best candidates tend to win elections or simply those with the most money (see Appendix for complete question wording). We recoded responses to 0–1 for all three items. The measures then

4. The 2012 and 2016 surveys were sponsored by the Institute for the Study of Citizens and Politics (ISCAP) at the University of Pennsylvania.

5. For a full discussion of NAES 2008 panel response rates, see <http://www.annenbergpublicpolicycenter.org/Downloads/NAES/OnlineSurvey/NAES08-Online-Codebook.pdf>. A total of 54.6 percent of Wave 1 cases completed all five waves. The average cumulative response rate CUMRR1 across the five waves was 8.92 percent. For the 2012 ISCAP study, a stratified sample of 3,621 of the 2008 respondents was selected, and of those, 2,606 participated in the preelection survey for a cooperation rate of 72.0 percent. For the 2016 study, a stratified sample of 1,477 respondents from 2012 was selected and 1,227 participated for a cooperation rate of 83.1 percent. Because AAPOR response rates were established for single survey administrations rather than multi-stage panel surveys (see Callegaro and DiSogra 2008), it is difficult to calculate a response rate over seven waves and nine years, particularly because we recontacted only a random subsample of the panelists due to budget constraints. Suffice it to say it would be in single digits.

were combined into an index by taking the mean for each respondent across all three items.<sup>6</sup>

Our sample was divided into *Winners* and *Losers* based on individual presidential voting intentions reported in the preelection survey waves.<sup>7</sup> We classified as losers respondents who reported preferring anyone but the winner (including third-party candidates), while Barack Obama supporters were classified as winners in both 2008 and 2012, and Trump supporters as winners in 2016. Only respondents who reported having voted in the relevant postelection survey are included.

We omit nonvoters from our main analysis because they are neither winners nor losers. Because individuals are being compared to their own individual prior levels of perceived legitimacy over time, there is no need to control for nonvoting. Although a given individual might be considered both a winner and a loser in the same election given concurrent congressional or senatorial elections, winning/losing at the congressional level has no demonstrable effects on perceived legitimacy in elections in which presidential candidates are also on the ballot (Anderson and LoTempio 2002). We therefore focus strictly on presidential preferences and outcomes (but see Online Appendix table A8 for the effects of election outcomes on nonvoters).

Past studies addressing the impact of winning and losing have used one of three basic statistical approaches: (1) comparisons of postelection self-reported winners and losers on the mean of the dependent variable; (2) comparisons of means from separate independent pre- and postelection samples of self-reported winners and losers; or (3) panel studies in which the same voters report values on the dependent variable, both preelection and postelection.

The panel approach is obviously best because it allows examinations of change over time in the same people. However, in the few studies thus far examining the extent of *change* in legitimacy over time among winning versus losing panelists, the statistical approach has been multiple regression including a lagged dependent variable as a predictor (see, e.g., Anderson and LoTempio 2002; Singh, Karakoç, and Blais 2012). In this case, researchers “control for” preelection legitimacy by including the time-1 dependent measure in a standard regression equation. Unfortunately, lagged dependent variable models do not assess within-person change (Allison 1990), and can only control for the stability of individual differences. Residual change from lagged models does

6. The index produced a true-score reliability of 0.48 for both 2008 measurements and the 2012 preelection survey, and a true-score reliability of 0.44 for the period encompassing the 2008 postelection survey and both 2012 measurements. Unlike most methods for calculating reliability based on internal consistency, Heise's (1969) method allows separation of measurement error from change over time in respondents' true scores. The true-score reliability is thus a much higher standard than a technique such as Cronbach's alpha.

7. More people report having voted for the winner after an election, so using preelection vote choice avoids the possibility of tainting win/loss measures with the election outcome. Undecided voters in the preelection waves were excluded from our analysis.



not correspond to the amount of actual change over time within each individual (see [Achen 2000](#); [Allison 2009](#)).

Given that our central purpose is to assess the extent to which winning and losing predict over-time *change* in individuals' perceptions of electoral integrity, fixed-effects regression is the ideal statistical approach. Unlike lagged models, it focuses specifically on explaining individual-level change.<sup>8</sup> In addition, lagged dependent-variable analyses and random-effects approaches rely on between-person variance rather than strictly the extent to which an individual increases or decreases over time. As a result, stable individual characteristics such as demographics and political interest can still produce spurious relationships. Because fixed-effects regression uses strictly within-person variation, between-person variation in stable individual characteristics cannot produce spurious associations. This represents a huge improvement over observational analyses that presume correct model specification, that is, that one has measured and controlled for *all* potentially spurious causes of association.<sup>9</sup>

By including a time dummy variable in the model to account for the average change over time across all respondents, these analyses also eliminate all time-varying phenomena that affect respondents equally. Further, by interacting a dummy variable representing winning versus losing with the time dummy variable, we are able to cleanly test our hypotheses about *differential* change from pre- to postelection among winners versus losers.

For this combination of reasons—panel data covering three separate presidential elections, combined with a statistical approach that allows us to test our hypotheses without the usual risk of spurious associations due to model choice—we have an ideal opportunity to test our hypotheses. More advantageous still is the fact that these three elections include both Republican and Democratic victories, thus ensuring that party identification is not confounded with winning and losing.

## Results

Our first prediction, that winners will increase over time in *Perceptions of Electoral Integrity*, and losers will decrease, from pre- to postelection, was

8. Fixed effects is similar to a difference-in-difference model comparing changes within a “treatment” group to changes within a “control” group in a nonexperimental setting ([Lechner 2010](#)). A fixed-effects estimator is mathematically equal to a first-difference estimator when there are observations at two points in time, as in our comparison of attitudes among winners and losers before and after a single election ([Wooldridge 2002](#)).

9. Fixed-effects regression eliminates the constant effects of stable individual characteristics. While we have no theoretical reason to expect the impact of race, gender, income, and so on to change over time, we nonetheless replicated the key fixed-effects analyses with the addition of interactions between time and a variety of demographic variables. As shown in [table A3](#) of the [Online Appendix](#), neither the pattern nor the statistical strength of our previous findings changed with inclusion of these variables.



examined by testing for statistically significant interactions between *Wave* and the respondent’s status as a *Winner* or *Loser*. Notably, our models of comparing winners to losers do not require demographic controls since each individual serves as his/her own control; that is, we compare respondents’ *Perceptions of Integrity* at one point in time to their *Perceptions of Integrity* at a later point in time. Between-subject variance is ignored in these analyses by treating individuals as fixed effects.

As shown in [table 1](#), the coefficients corresponding to these interactions are statistically significant in all three elections. *Winners* consistently increase their levels of *Perceived Electoral Integrity*, while *Losers* consistently decrease in *Perceived Electoral Integrity* from pre- to postelection.<sup>10</sup>

[Figure 1](#) illustrates these effects as mean changes among *Winners* and *Losers* in each election year. Panel 1 of [figure 1](#) indicates that *Winners* in 2008 increased substantially in *Perceptions of Electoral Integrity* from before to after the election. Losers decreased over this same time period, albeit to a lesser degree. Panels 2 and 3 of [figure 1](#) show similar patterns. While the magnitude of increases and decreases differs, winners increased in *Perceptions of Electoral Integrity* after each election whereas losers became less confident in the electoral process. To some extent, these effects are driven by the winners and losers with the strongest relative preferences for one candidate versus the other. However, as shown in [Online Appendix figure A1](#), the overall pattern generally persists across winners and losers with high, low, and medium

**Table 1. Effects of winning or losing on pre- to postelection change in perceptions of electoral integrity**

	2008 Election		2012 Election		2016 Election	
	Coeff.	(s.e.)	Coeff.	(s.e.)	Coeff.	(s.e.)
Wave (0 = preelection, 1 = postelection)	−0.031***	(.003)	−0.088***	(.008)	−0.074***	(.011)
Winner status (0 = Loser, 1 = Winner) x						
Wave	0.211***	(.004)	0.134***	(.012)	0.308***	(.018)
Constant	0.424***	(.003)	0.543***	(.009)	0.400***	(.014)
N	9,155		1,849		959	

NOTE.—Cell entries are unstandardized coefficients from three fixed-effects panel regressions with robust standard errors in parentheses.

\*\*\* $p < 0.001$

10. See [Online Appendix table A2](#) for results that include only respondents who participated in all three panel studies. Substantive results are identical and estimated effect sizes are similar to those in [table 1](#).

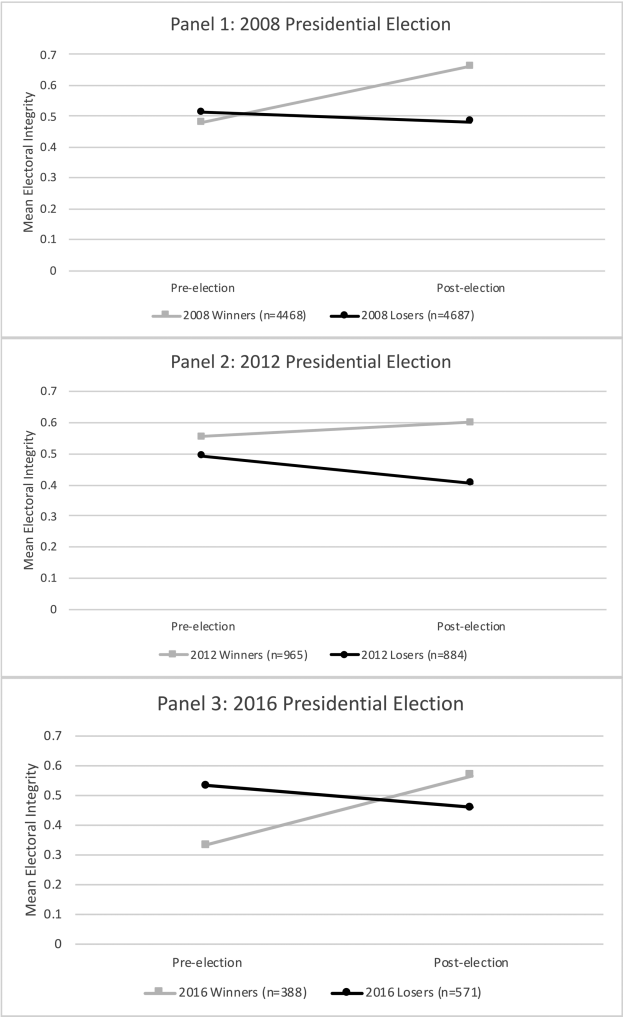


Figure 1. Effects of election outcomes on perceived electoral integrity.

strengths of preferences. The exception is that losers with very weak preferences actually *increased* in perceptions of electoral integrity by very small amounts in both 2008 and 2016.

Table 1 showed whether *Perceptions of Electoral Integrity* changed at significantly different magnitudes from pre- to postelection among *Winners* and *Losers*. If *Perceptions* did change at significantly different magnitudes, this would indicate that the effects of winning are asymmetric, consistent with our second hypothesis. The absolute values of the changes in opposing directions were significantly different from one another, with the positive change

in integrity among *Winners* greater than the negative change among *Losers* in 2008 and 2016 (2008:  $t = 51.20, p < 0.001$ ; 2016:  $t = 17.28, p < 0.001$ ), and the negative change among losers greater than the positive change among winners in 2012 ( $t = 11.62, p < 0.001$ ). Table 2 summarizes the magnitude of the change among *Winners* versus *Losers* for each election. These findings suggest that the effects of winning and losing are indeed asymmetric, though not consistently as predicted.

There is no zero-sum process at play ensuring that the sum total of perceived electoral integrity stays roughly the same, but *Losers* do not consistently decrease more than *Winners* increase. The expectation for greater absolute changes from losing relative to winning was only supported in one election. In 2008, contrary to this expectation, the increase in perceptions of integrity among *Winners* (+0.18) was *six times* the size of the significant decrease in integrity among *Losers* (−0.03). In 2016, *Winners* gained about three times as much as *Losers* lost (+0.23 vs. −0.07). Contrary to psychological expectations, people did not react more to a negative outcome than a positive one.

The expectation of greater effects from losing was confirmed in the 2012 presidential election. The same significant *Winner Status* by *Wave* interaction is evident, but in 2012 *Winners* increased relatively little (+0.05) and *Losers* decreased slightly more (−0.09). Why might the 2012 election have produced a different result from 2008 and 2016? We suspect the answer may lie in the context of a given election. As our third hypothesis suggests, effects on *Perceived Electoral Integrity* may be contingent on the outcome of previous elections. Our prediction was that the elation of winning would diminish after the first time, whereas the frustration of losing would increase the second time that it occurs.

The same party’s candidate won two consecutive elections in 2008 and 2012. Because our panel surveys interviewed the same respondents across different election cycles, we are able to assess the effects of a second consecutive win or loss on an individual voter.<sup>11</sup> We merged the four panel waves to

**Table 2. Asymmetry of winning and losing: gains and losses among winners and losers in three presidential elections**

	Winners	Losers	Comparison of absolute values of change
2008 Election	+0.180	−0.031	$p < 0.001$
2012 Election	+0.047	−0.088	$p < 0.001$
2016 Election	+0.234	−0.074	$p < 0.001$

NOTE.—The absolute values of the changes in opposing directions for *Winners* versus *Losers* were significantly different from one another in each election year, although *Winners* increased more than *Losers* decreased in 2008 and 2016, whereas *Losers* decreased more than *Winners* increased in 2012.

11. Only 17 respondents were three-time winners who preferred Democrat Barack Obama in October 2008 and October 2012 but also preferred Republican Donald Trump in October 2016. Similarly, only 15 respondents were three-time losers.

evaluate whether positive change for *Winners* was significantly greater with the first election win, and negative change for *Losers* significantly greater with the second election loss. We created one dummy variable to represent survey wave (preelection = 0, postelection = 1), and a second dummy variable representing the second consecutive win or loss. Among *Two-Time Winners*, a significant negative interaction between *Wave* and *Second Win/Loss* would indicate that *Winners* gained more from the earlier election victory than from the second election victory. As shown in the first column of [table 3](#), the results were exactly as predicted, with significantly less of a boost from the second consecutive victory relative to the first ( $b = -0.15, p < 0.001$ ).

Among *Two-Time Losers*, we predicted an increasingly negative impact from the second loss relative to the first one. As shown in the second column of [table 3](#), this hypothesis was also confirmed. The effect of losing, regardless of election, was significant and negative, but the effect of losing a second time carried a much greater negative impact on *Perceived Electoral Integrity* ( $b = -0.07, p < 0.001$ ).

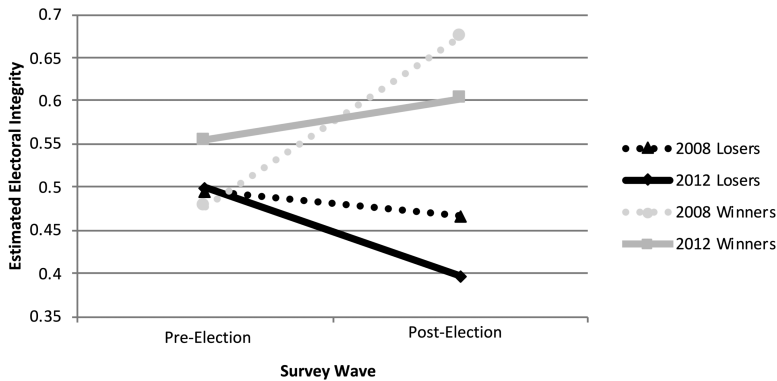
[Figure 2](#) summarizes these findings by overlaying the pattern of change for *Winners* and *Losers* in 2008 with those same *Two-Time Winners* and *Two-Time Losers* in 2012. The pattern of results in [figure 2](#) is very clear; those who won in 2008 by taking power away from the party previously in power gained a great deal of respect for the electoral process, while the same citizens benefited relatively little from Obama’s second victory. Among *Losers*, losing the first time produced mildly negative reactions, but losing the second time had much stronger repercussions for *Perceptions of Electoral Integrity*.

**Table 3. Effects of repeated winning or losing on perceptions of electoral integrity**

	Among two-time winners	Among two-time losers
Wave (0 = preelection, 1 = postelection)	0.196*** (0.010)	-0.029** (0.009)
Second win/loss (0 = first win/loss, 1 = second win/loss)	0.077*** (0.010)	0.004 (0.009)
Wave x Second win/loss	-0.148*** (0.014)	-0.074*** (0.013)
Constant	0.478*** (0.007)	0.495*** (0.007)
<i>N</i>	613	576

NOTE.—Cell entries are unstandardized coefficients from two separate fixed-effects panel regressions with robust standard errors in parentheses. Voters who preferred Barack Obama in both October 2008 and October 2012 ( $n = 613$ ) are classified as Two-Time Winners. Voters who preferred a candidate other than Obama in both October 2008 and October 2012 ( $n = 576$ ) are classified as Two-Time Losers.

\*\* $p < 0.01$ ; \*\*\* $p < 0.001$



**Figure 2. Effects of winning and losing on perceived electoral integrity in the 2008 and 2012 elections.** Only Two-Time Losers ( $n = 576$ ) and Two-Time Winners ( $n = 613$ ), voters who participated in both panels and had consistent partisan preferences across the 2008 and 2012 presidential elections, are shown. Respondents who changed preferences from one election to the next, did not report a candidate preference in both preelection surveys, or did not report voting in both elections are excluded.

This pattern suggests that *Losers'* levels of *Perceived Electoral Integrity* may become especially problematic when the political parties do not regularly alternate control of the presidency. The negative effects on repeat losers will increase, while the positive effects of winning will not compensate for this. Due to term limits, the same individual cannot occupy the White House for more than two terms, but a president from the same party may stay in office. In our panel, it is the same president who was re-elected as well as the same party. But if one assumes that reactions are tied to electing one's party rather than one's candidate, then *Perceptions of Electoral Integrity* should decline on average the longer the same party is in power.

Our fourth and final hypothesis concerns the persistence of effects from winning and losing. With these data, we have a unique opportunity to examine the persistence of individual-level effects over periods of nearly four years, from postelection 2008 to preelection 2012, and from postelection 2012 to preelection 2016. Table 4 displays mean changes in *Perceptions of Electoral Integrity* among *Winners* and *Losers* from preelection to postelection, and then from after one election to before the next. As shown in table 4, *Winners* in 2008 gained a great deal of respect for elections. Even though roughly two-thirds of that increase had vanished by the time of the next election, the effect was still present and statistically significant by 2012. Meanwhile, the attitudes of *Losers* in 2012 actually grew *even more negative* in the period leading up to the 2016 election.

Unlike many campaign effects, the effects of winning and losing on perceptions of electoral integrity do not appear to be short-term or fleeting. In both

Table 4. Persistence of the effects of winning and losing

		Preelection baseline mean for perceptions of electoral integrity	Postelection mean for perceptions of electoral integrity	Mean perceptions of electoral integrity four years later	Δ Pre- to postelection	Δ Relative to baseline four years earlier
2008 Election	Winners	0.478	0.670	0.543	+0.192***	+0.065***
	Losers	0.494	0.476	0.497	−0.018*	+0.003
2012 Election	Winners	0.553	0.603	0.565	+0.050***	+0.012***
	Losers	0.490	0.402	0.358	−0.088***	−0.132***

NOTE.—See table A4 in the [Online Appendix](#) for the fixed-effects regressions used to test for statistical significance.

\* $p < 0.05$ ; \*\*\* $p < 0.001$

elections, the effects of winning persisted through the subsequent four years. Obama voters from 2008 had more positive *Perceptions* in October 2012 than they did prior to the 2008 election.<sup>12</sup> Likewise, those who voted for Obama in 2012 maintained *Perceptions of Electoral Integrity* that were more positive in October 2016 than they had been before Obama's victory in 2012.

The negative effects of losing varied in their persistence. By October 2012, the 2008 *Losers' Perceptions of Electoral Integrity* had reverted to a level that was statistically indistinguishable from their October 2008 levels. This is perhaps unsurprising given the relatively mild negative effects of losing in 2008. But in 2012, *Losers* reacted much more negatively to their party's second consecutive loss, and the effects of losing in 2012 were much more persistent. In October 2016, those who lost four years earlier reported the lowest absolute levels of trust in the electoral process at any point in our nine years of data.

Voters remember what happened in a previous election, and even four years later a previous outcome may still influence their attitudes toward the process. Further, the outcomes of previous presidential elections condition the magnitude of changes in perceptions of integrity. The surprisingly long memories of voters suggest that the longer-term context of wins and losses must be taken into account in understanding how winning and losing affect perceptions of electoral legitimacy. It is thus not surprising that previous studies focused on single elections have produced inconsistent results.

## Conclusion

Panel data from before and after three presidential elections provided an unusually rich opportunity to examine four hypotheses involving the impact of winning and losing at the presidential level on the perceived legitimacy of election outcomes. First, we document strong causal relationships between winning and losing and individual change over time in perceptions of electoral legitimacy. Because both preelection and postelection perceptions of legitimacy exist for the same individuals, we use fixed effects to rule out potential spuriousness based on stable characteristics of winners versus losers. Although fixed-effects regression does not rule out reverse causation, in this case it is not plausible that legitimacy causes wins or losses. Winning and losing have clear effects on perceptions of electoral legitimacy for both winning and losing Republicans and Democrats.

Second, we find that winning and losing do not produce symmetric reactions. This asymmetry suggests obvious problems for maintaining a constant level of electoral legitimacy. Further, the context of a given win or loss influences the magnitude of its impact. A second loss in a row is experienced very differently from a second consecutive win. Decreasing sensitivity to the positive effects of winning limits how much being on the winning side can increase

12. See [table A4](#) in the [Online Appendix](#) for full fixed-effects regression results.



electoral integrity. Repeated victories for one party would produce diminishing returns because winning does not represent a change from the status quo.

Repetitive losses, on the other hand, increase citizens' sensitivity to loss. They experience greater declines in electoral legitimacy as disappointment after disappointment convinces them that the game is rigged. Indeed, the greatest danger identified in our results is from repeated losses. One electoral loss seems to be taken in stride with relatively limited effects on the perceived fairness of the process. But two consecutive losses appear to be a far more serious affair. The decline in the perceived integrity of the electoral process among losers in 2012, combined with a muted increase among the winners, points to a potentially serious problem if the same side loses in a third consecutive election.

An objective assessment of what repeated losses mean in a two-party system would suggest that two consecutive losses are no more suspicious than two consecutive heads or tails in a fair coin flip. This happens regularly due to chance alone. However, electoral outcomes are subject to over-interpretation. Partisans on the losing side are apt to perceive the deck as stacked against them long before a systematic explanation of any kind is called for. This is unfortunate to the extent that parties may rush to change the system before it can safely be concluded that either party is at a systematic advantage.

The absolute values of the declines in perceptions of electoral integrity among losers are modest, with the mean change for 2012 losers estimated at around 10 percent of the full scale. However, this change is even more substantial as a percentage of respondents' initial levels of electoral integrity. The 2012 losers' perceptions of electoral integrity declined by 18 percent, on average, from pre- to postelection. Repeated losses in particular therefore represent an opportunity for substantial drops in overall perceptions of the process.

Despite the many advantages of using panel data across several elections, some of the usual limitations of observational analyses may apply. Although the risk of spuriousness and omitted variable bias is greatly reduced by fixed effects because it controls for unobserved time-constant heterogeneity (Vaisey and Miles 2017), it cannot eliminate all potential threats.

To what extent can our results be generalized beyond the three elections for which we have data? On the one hand, every election is inherently unique due to its candidates as well as its historical context, and our analysis is limited to presidential elections. On the other hand, election losers have always been able to supply theories for why an undesirable outcome was illegitimate. In 2000, Democrats blamed hanging chads in Florida and the Supreme Court ruling. In 2004, many Democrats blamed corruption in the voting process. In 2008 and 2012, Barack Obama was argued not to be an American citizen and thus accused of being illegitimately elected twice. Virtually all election losers blame the news media and misleading opposition campaigns to some extent. Far from being unique to these elections, explanations emphasizing illegitimate outcomes are endemic to being on the losing side of elections (Uscinski and Parent 2014; Berinsky 2017; Miller, Farhart, and Saunders 2018).

The fact that Clinton won the popular vote but not the Electoral College in 2016 made it somewhat unusual, since this has happened only five times previously in American history. Thus Democrats in 2016 could claim the Electoral College had thwarted the public will. The Electoral College may also make it difficult to generalize from the American experience to the parliamentary systems most common in Europe, the focus of much of the existing literature on winners and losers. Nonetheless, because we track the same respondents through three different elections and a period of more than eight years, our findings can at the very least be generalized to American elections in the current political era. In addition, the individual-level psychological factors we have identified should operate similarly even in electoral systems with different constitutional rules and procedures.

On the methodological front, long-term panels always risk bias due to attrition or panel conditioning effects. If attrition is systematic rather than random, then it is difficult to generalize effect sizes. To examine this possibility, we compared the demographic characteristics of our panel to the most recent Current Population Surveys (see [table A1](#) in the [Online Appendix](#)). Because the panel sampled only those 18 and over in 2007, there are naturally no respondents in the 18–24 years old group by the end of the panel and those 25–34 are somewhat underrepresented, but this is a result of the panel design rather than attrition. The least educated are also notably underrepresented, in part due to the underrepresentation of the youngest cohort of adults. However, our results with unweighted and weighted data do not differ in any substantive way, thus lending confidence to our estimates (see [Online Appendix tables A5 and A6](#)).

In addition to attrition, panel conditioning effects are another potential source of concern. Fortunately, this is not likely to be problematic in this particular panel. First, because the time between contacting respondents was unusually long—at times several years—it is unlikely that respondents remember having been asked these questions years before. Second, because panelists are primarily asked about completely different topics in the intervening surveys, they are not conditioned on political interest in particular (see [Kruse et al. 2009](#); [Dennis, Kruse, and Thompson 2011](#)).

What additional implications may be drawn from this study? Our results are also notable for what they suggest about American citizens. The usual portrait of the American voter is of one who is so distracted and untethered to political reality that he or she could hardly be expected to remember much of anything from four years earlier. Interestingly, the experience of vicariously winning or losing is definitely remembered and continues to exert influence on public attitudes. Although its impact wanes in the intervening period, it does not disappear, and voters do not start over with a tabula rasa for each presidential election. Instead, their responses are conditioned by what came before.

Supporting a winning or losing presidential candidate is thus a significant event in the lives of many American citizens. It not only has immediate

short-term effects on how citizens think about the integrity of elections, it also has consequences for perceptions of electoral integrity a full four years later when the next presidential election season begins. Few effects have demonstrated this kind of longevity. Changes in control of the White House are therefore an important part of communicating to the American public that the process is fair and responsive.

Our results further underscore the need for long-term panel studies in order to better understand citizen behavior. The inconsistent conclusions from past studies may be understood only when the longer-term context is taken into account. Without panel data, it will not be possible to distinguish the experiences of repeated winning or losing from their standard effects, or gaps between winners and losers from actual evidence of improvement or decline in levels of electoral legitimacy.

To the extent that changes in the perceived legitimacy of elections represent merely sour grapes among losers, or enthusiastic righteousness among winners, these perceptions have little basis in the election process itself. People may be unhappy when they do not get what they want, but this is not a sign of an illegitimate process. There are grounds for concern, however, when even the winners do not deem the outcome legitimate. In 2016, Trump supporters were convinced of the illegitimacy of the election outcome long before they knew what it was. When the Republican won, their perceptions of legitimacy naturally rose, but this did not result from assessments of the process itself so much as the outcome. Indeed, Republicans in the postelection period continued to argue that their votes were under-counted and that Trump had won the popular vote.

The legitimacy of a variety of democratic institutions has taken on pressing concern in recent years (e.g., Gibson 2015). New developments such as state-level voting restrictions, concerns about the integrity of voting machines, and Russian efforts to intervene in the American electoral process have made the perceived legitimacy of American elections a genuine concern. Given that people seldom have direct access to evidence about whether the process was fair, the news media will inevitably play an important role in framing outcomes as legitimate or illegitimate. The rise of partisan media makes this problematic because partisan sources are likely to exacerbate self-serving perceptions of legitimacy, and to fuel the public's sense that something is amiss. If there is no reassurance that the process was just, then our elected leaders are unlikely to command the respect necessary to govern effectively.

## Appendix

### Question Wording

#### PERCEPTIONS OF ELECTORAL INTEGRITY

The main dependent variable, Perceptions of Electoral Integrity, is constructed from three items included in the pre- and postelection waves of the 2008, 2012, and 2016 surveys:

- 1) How much do you feel that having elections makes the government pay attention to what the people think: a good deal, some, or not much? [A good deal, Some, Not much]
- 2) In general, do you think the best candidates win the elections, or is it just the candidates who raise the most money that get elected, or something in between? [Best candidates win, Candidates who raise the most money win, Something in between]
- 3) In some countries, people believe their elections are conducted fairly. In other countries, people believe that their elections are conducted unfairly. Do you believe presidential elections in the United States are generally... [Very fair, Somewhat fair, Neither fair nor unfair, Somewhat unfair, Very unfair].

These three items were recoded such that higher values indicated greater perceived integrity and then averaged to create a single scale.

#### VOTE PREFERENCE

Vote preference is derived from the preelection and postelection waves of the panel studies. Respondents who reported voting in the postelection wave and reported intending to vote for Barack Obama in the preelection wave in 2008 or 2012, or Donald Trump in the preelection wave in 2016, were classified as winners in the relevant election year. Respondents who reported voting in the postelection wave and reported intending to vote for any other candidate in the preelection wave were classified as losers.

## Supplementary Data

Supplementary data are freely available at *Public Opinion Quarterly* online.

## References

- Achen, Christopher H. 2000. "Why Lagged Dependent Variables Can Suppress the Explanatory Power of Other Independent Variables." Paper presented at the Annual Meeting of the Political Methodology Section of the American Political Science Association, Los Angeles, CA, USA.
- Allison, Paul D. 1990. "Change Scores as Dependent Variables in Regression Analysis." *Sociological Methodology* 20:93–114.
- . 2009. *Fixed Effects Regression Models*. Thousand Oaks, CA: SAGE Publications, Inc.
- Anderson, Christopher J., André Blais, Shaun Bowler, Todd Donovan, and Ola Listhaug. 2005. *Losers' Consent: Elections and Democratic Legitimacy*. New York: Oxford University Press.
- Anderson, Christopher J., and Andrew J. LoTempio. 2002. "Winning, Losing and Political Trust in America." *British Journal of Political Science* 32:335–51.
- Atkeson, Lonna Rae, and Kyle L. Saunders. 2007. "The Effect of Election Administration on Voter Confidence: A Local Matter?" *PS: Political Science and Politics* 40:655–60.
- Banducci, Susan A., and Jeffrey A. Karp. 2003. "How Elections Change the Way Citizens View the Political System: Campaigns, Media Effects and Electoral Outcomes in Comparative Perspective." *British Journal of Political Science* 33:443–67.

- Bannerman, Rachel L., Maarten Milders, and Arash Sahraie. 2010. "Attentional Bias to Brief Threat-Related Faces Revealed by Saccadic Eye Movements." *Emotion* 10:733–38.
- Bartels, Larry M. 2014. "Remembering to Forget: A Note on the Duration of Campaign Advertising Effects." *Political Communication* 31:532–44.
- Beaulieu, Emily. 2014. "From Voter ID to Party ID: How Political Parties Affect Perceptions of Election Fraud in the U.S." *Electoral Studies* 35:24–32.
- Berinsky, Adam J. 2017. "Telling the Truth about Believing the Lies? Evidence for the Limited Prevalence of Expressive Survey Responding." *Journal of Politics* 80:211–24.
- Birch, Sarah. 2010. "Perceptions of Electoral Fairness and Voter Turnout." *Comparative Political Studies* 43:1601–22.
- Blais, André, and François Gélneau. 2007. "Winning, Losing and Satisfaction with Democracy." *Political Studies* 55:425–41.
- Callegaro, Mario, & DiSogra, Charles. 2008. Computing Response Metrics for Online Panels. *Public Opinion Quarterly* 72:1008–32.
- Canache, Damarys, Jeffery J. Mondak, and Mitchell A. Seligson. 2001. "Meaning and Measurement in Cross-National Research on Satisfaction with Democracy." *Public Opinion Quarterly* 65:506–28.
- Craig, Stephen C., Michael D. Martinez, Jason Gainous, and James G. Kane. 2006. "Winners, Losers, and Election Context: Voter Responses to the 2000 Presidential Election." *Political Research Quarterly* 59:579–92.
- Curini, Luigi, Willy Jou, and Vincenzo Memoli. 2012. "Satisfaction with Democracy and the Winner/Loser Debate: The Role of Policy Preferences and Past Experience." *British Journal of Political Science* 42:241–61.
- Dahlberg, Stefan, and Jonas Linde. 2015. "The Winner-Loser Gap in Satisfaction with Democracy over Time: Evidence from a Swedish Citizen Panel." 2015:1. QoG Working Paper Series. Göteborg: Quality of Government Institute, University of Gothenburg. available at [http://qog.pol.gu.se/digitalAssets/1510/1510190\\_2015\\_1\\_dahlberg\\_linde.pdf](http://qog.pol.gu.se/digitalAssets/1510/1510190_2015_1_dahlberg_linde.pdf), accessed September 7, 2018.
- Dennis, J. Michael, Yelena Kruse, and Trevor Thompson. 2011. "Examination of Panel Conditioning Effects in a Web-Based 2008 Election Study." Paper presented at the 66th Annual Conference of the American Association for Public Opinion Research, Phoenix, AZ, USA.
- Dinas, Elias. 2014. "Does Choice Bring Loyalty? Electoral Participation and the Development of Party Identification." *American Journal of Political Science* 58:449–65.
- Esaiasson, Peter. 2011. "Electoral Losers Revisited—How Citizens React to Defeat at the Ballot Box." *Electoral Studies* 30:102–13.
- Farrell, David M., and Ian McAllister. 2006. "Voter Satisfaction and Electoral Systems: Does Preferential Voting in Candidate-Centred Systems Make a Difference?" *European Journal of Political Research* 45:723–49.
- Festinger, Leon. 1957. *A Theory of Cognitive Dissonance*. Evanston, IL: Row, Peterson and Company.
- Festinger, Leon, and James M. Carlsmith. 1959. "Cognitive Consequences of Forced Compliance." *Journal of Abnormal and Social Psychology* 58:203–10.
- Gerber, Alan S., James G. Gimpel, Donald P. Green, and Daron R. Shaw. 2011. "How Large and Long-Lasting Are the Persuasive Effects of Televised Campaign Ads? Results from a Randomized Field Experiment." *American Political Science Review* 105:135–50.
- Gibson, James L. 2015. "Legitimacy Is for Losers: The Interconnections of Institutional Legitimacy, Performance Evaluations, and the Symbols of Judicial Authority." In *Motivating Cooperation and Compliance with Authority*, edited by Brian H. Bornstein and Alan J. Tomkins, 81–116. Nebraska Symposium on Motivation. Cham, Switzerland: Springer.
- Hall, Thad E., J. Quin Monson, and Kelly D. Patterson. 2009. "The Human Dimension of Elections: How Poll Workers Shape Public Confidence in Elections." *Political Research Quarterly* 62:507–22.

- Hamm, Alfons O., Harald T. Schupp, and Almut I. Weike. 2003. "Motivational Organization of Emotions: Autonomic Changes, Cortical Responses, and Reflex Modulation." In *Handbook of Affective Sciences*, edited by Richard J. Davidson, Klaus R. Scherer, and H. Hill Goldsmith, 187–211. New York: Oxford University Press.
- Heise, David R. 1969. "Separating Reliability and Stability in Test-Retest Correlation." *American Sociological Review* 34:93–101.
- Herrnson, Paul S., Richard G. Niemi, Michael J. Hanmer, Peter L. Francia, Benjamin B. Bederson, Frederick G. Conrad, and Michael W. Traugott. 2008. "Voters' Evaluations of Electronic Voting Systems: Results from a Usability Field Study." *American Politics Research* 36:580–611.
- Hill, Seth J., James Lo, Lynn Vavreck, and John Zaller. 2013. "How Quickly We Forget: The Duration of Persuasion Effects from Mass Communication." *Political Communication* 30:521–47.
- Huseby, Beate. 1999. "Government Economic Performance and Political Support." In *Challenges to Representative Democracy: Parties, Voters and Public Opinion*, edited by Hanne Marthe Narud and Toril Aalberg, 127–50. Bergen: Fagbokforlaget.
- Keele, Luke. 2005. "The Authorities Really Do Matter: Party Control and Trust in Government." *Journal of Politics* 67:873–86.
- Kruse, Yelena, Mario Callegaro, J. Michael Dennis, Stefan Subias, Michael Lawrence, Charles DiSogra, and Trevor Thompson. 2009. "Panel Conditioning and Attrition in the AP-Yahoo! News Election Panel Study." Paper presented at the 64th Annual Conference of the American Association for Public Opinion Research, Hollywood, FL, USA.
- Lechner, Michael. 2010. "The Estimation of Causal Effects by Difference-in-Difference Methods: Estimation of Spatial Panels." *Foundations and Trends in Econometrics* 4:165–224.
- Linde, Jonas, and Joakim Ekman. 2003. "Satisfaction with Democracy: A Note on a Frequently Used Indicator in Comparative Politics." *European Journal of Political Research* 42:391–408.
- Mercer, Jonathan. 2005. "Prospect Theory and Political Science." *Annual Review of Political Science* 8:1–21.
- Miller, Joanne M., Christina E. Farhart, and Kyle L. Saunders. 2018. "The Relationship between Losing an Election and Conspiracy Theory Endorsement." Paper presented at the Annual Meeting of the Midwest Political Science Association, Chicago, IL, USA.
- Miltner, Wolfgang H. R., Silke Krieschel, Holger Hecht, Ralf Trippe, and Thomas Weiss. 2004. "Eye Movements and Behavioral Responses to Threatening and Nonthreatening Stimuli During Visual Search in Phobic and Nonphobic Subjects." *Emotion* 4:323–39.
- Moehler, Devra C. 2009. "Critical Citizens and Submissive Subjects: Election Losers and Winners in Africa." *British Journal of Political Science* 39:345–66.
- Nadeau, Richard, and Andre Blais. 1993. "Accepting the Election Outcome: The Effect of Participation on Losers' Consent." *British Journal of Political Science* 23:553–63.
- Neuberg, Steven L., Douglas T. Kenrick, and Mark Schaller. 2011. "Human Threat Management Systems: Self-Protection and Disease Avoidance." *Neuroscience & Biobehavioral Reviews* 35:1042–51.
- Norris, Pippa. 2014. *Why Electoral Integrity Matters*. New York: Cambridge University Press.
- Pierce, Lamar, Todd Rogers, and Jason A. Snyder. 2016. "Losing Hurts: The Happiness Impact of Partisan Electoral Loss." *Journal of Experimental Political Science* 3:44–59.
- Sances, Michael W., and Charles Stewart. 2015. "Partisanship and Confidence in the Vote Count: Evidence from U.S. National Elections since 2000." *Electoral Studies* 40:176–88.
- Sides, John, and Lynn Vavreck. 2014. *The Gamble: Choice and Chance in the 2012 Presidential Election*. Princeton, NJ: Princeton University Press.
- Singh, Shane, Ekrem Karakoç, and André Blais. 2012. "Differentiating Winners: How Elections Affect Satisfaction with Democracy." *Electoral Studies* 31:201–11.
- Tyler, Tom. 2013. "Achieving Peaceful Regime Change: Why Do Losers Consent?" Working Paper. Available at [https://law.yale.edu/system/files/documents/pdf/sela/SELA13\\_Tyler\\_CV\\_Eng\\_20130321.pdf](https://law.yale.edu/system/files/documents/pdf/sela/SELA13_Tyler_CV_Eng_20130321.pdf).

- Uscinski, Joseph E., and Joseph M. Parent. 2014. *American Conspiracy Theories*. New York: Oxford University Press.
- Vaisey, Stephen, and Andrew Miles. 2017. "What You Can—and Can't—Do With Three-Wave Panel Data." *Sociological Methods & Research* 46:44–67.
- Wand, Jonathan N., Kenneth W. Shotts, Jasjeet S. Sekhon, Walter R. Mebane, Michael C. Herron, and Henry E. Brady. 2001. "The Butterfly Did It: The Aberrant Vote for Buchanan in Palm Beach County, Florida." *American Political Science Review* 95:793–810.
- Wooldridge, Jeffrey M. 2002. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press.