

Critiquing Syllogisms and Statistical Fallacies in the Claims about Massive Election Fraud in 2020*

Bernard Grofman
University of California, Irvine

Jonathan Cervas
Carnegie Mellon University

with the assistance of A Wuffle

ABSTRACT (150 words)

The amount that has been uttered/written about massive electoral fraud in the 2020 presidential election is immense, made even larger by the vast number of times the same gets repeated. Virtually all of the claims have been extensively fact checked by election officials, journalists, and academics, and the lies, half-truths, and occasional honest mistakes have been demolished -- though rebuttals largely fall on deaf ears. We see no need to go over this well-ploughed ground. Here we look at the most neglected aspect of the claims about election fraud -- claims based on actual facts, usually statistical features of the election, where the implications of these facts are completely misinterpreted. In particular, we look at what A Wuffle has labeled *syllogisms*, syllogistic arguments which are either fallacious in form, or which have at least one premise that is indubitably false even while another premise may be quite factual.

*Grofman is Distinguished Professor of Political Science and Jack W. Peltason Chair of Democracy Studies at the University of California, Irvine. Cervas, a UCI Ph.D., is a Post-Doctoral Fellow in the Institute for Politics and Strategy at Carnegie Mellon University. A Wuffle is one of the dozen leading satirists in political science (as the other three satirists will certainly agree). Address comments to Bgrofman@uci.edu. Grofman's participation in this project was supported by the Peltason Chair.

I. Introduction

Our concern here is with claims of massive election fraud¹ in the 2020 presidential election that are grounded, at least in part, on indisputable facts about statistical features of the election. We leave to fact checkers, election officials, and other academics the rebuttal of the vast mass of near infinitely repeated lies or half-truths,² and occasional just plain misunderstandings (Swenson 2020)³ about the ways in which the 2020 election was conducted and its results

¹ Here we limit ourselves to a relatively precise definition of fraud that includes votes cast by someone ineligible to cast a vote or ineligible to cast a ballot in some particular election; ballot tampering, in which who is voted for on a ballot is changed without the knowledge of the voter, or is falsely recorded; ballot stuffing, where votes not cast by actual voters are added in to a tally, or some set of votes or ballots is tallied more than once; and ballot removal, where some votes are not counted, or false information is conveyed to voters about ballot content or time of voting, or about voter eligibility or the identification required to participate in the election. Of course, sometimes what appears to be fraud may simply be unintentional error on the part of a volunteer and part-time set of election workers. Claims of fraud can be as narrow as “this person voted illegally” or as broad as “this election was stolen from a given candidate.” However, we exclude from our definition of fraud various other malignant (and potentially illegal) practices such as making it harder to vote by limiting the number of polling places or locating them in ways that penalize certain types of voters, or by making it hard(er) to get registered to vote, or to identify oneself as a legal voter at the polls, or by a purging of the roll of eligible voters in such a way as to make it more likely that supporters of a particular party or a particular candidate will be disproportionately removed, or by a conscious practice of voter intimidation either before or during the election.

² For example, there were supposed mounds of affidavits of eyewitness evidence of supposed ballot tampering. But, when Trump’s lawyers were given the opportunity to present this evidence in court, no court found the witness claims credible.

³ Trump supporters made some disturbing factual claims about electoral discrepancies that turned out, in fact, to be just plain wrong -- such as the claim that more ballots were cast in Pennsylvania than there were voters. The Pennsylvania claim was based on using a data source that had not yet been updated with information on the final number of completed ballots.

Similarly, the claim (Stimson 2020) that a tabulation station in Fulton County, Georgia was flooded and thousands of additional ballots were rolled in and added to the tabulation in the confusion is erroneous. Fulton County is the home to Atlanta and voted overwhelmingly for Joe Biden (+46 points). Alas, there was no flood at the claimed site but instead there was a leaky toilet. Republican poll watchers had left after being told that counting would be paused, but counting continued, leading some to suggest wrongdoing.

tabulated. And we leave claims that particular election practices in some given state violated that state's own constitution⁴ where they belong, namely in litigation in state courts that President Trump's attorneys lost with predictable regularity.⁵ Instead we focus on (a) what A Wuffle (personal communication, April 1, 2015) has labeled *sylylgisms* -- syllogistic arguments which are either fallacious in form, or which have at least one premise that is indubitably false even while another premise may be quite factual, and thus which give rise to invalid or unfounded conclusions -- and on (b) statistical fallacies of a simple sort, namely confusing percentages and percentage point changes, failing to recognize that large changes in one direction in low population units of political geography or low population demographic subgroups can be compensated for by small changes in the other direction in high population units of political geography or demographic groupings,⁶ and cherry-picking the data to emphasize only those facts

⁴ E.g., in allowing extra time for receipt of properly postmarked mail ballots -- justified by state officials because of post office slowdowns linked to the pandemic, or in allowing voters the opportunity to "cure ballots" by filling in missing data on the envelopes of otherwise legal mail-in ballots. (Landergan & Gerstein 2020).

⁵ As of this writing, there were 62 cases brought to state or federal courts, with Republican claims being refuted or denied standing in 61 of the cases. The sole win was when a Pennsylvania judge ruled that voters could not "cure" their ballot if they failed to provide identification within three days of the election (Cummings et al 2021). For a full accounting of lawsuits, see Wikipedia (2021); see also ABA (2021). No violations of state law were found. The key case with respect to standing is the one brought by Ken Paxton, in his role as Attorney General of the state of Texas. He sued the commonwealth of Pennsylvania, the state of Georgia, and the state of Wisconsin in a lawsuit in federal court later joined by Attorneys General in 17 other states, and by 126 Republican members of Congress. The suit claimed that "Non-legislative actors' purported amendments to States' duly enacted election laws, violated the Electors Clause's vesting State legislatures with plenary authority regarding the appointment of presidential electors." The U.S. Supreme Court, which had original jurisdiction in the case, ruled in an unsigned brief that Texas "has not demonstrated a judicially cognizable interest in the manner in which another state conducts its elections" (*Texas v. Pennsylvania*, 592 U.S. ____).

⁶ For example, to state the obvious, the presidential candidate who wins the most counties doesn't necessarily win the election. Americans are also familiar with how the Electoral College can lead to "inversions", such that even winning more votes does not necessarily lead to electoral victory (Cervas and Grofman 2019).

that lead to the desired conclusion.⁷ Thus, our focus in this essay will be limited to those claims where the election data being referenced in support of the fraud claim is itself not in dispute. Rather what is in error is the assertion that these election facts provide proof of massive election fraud.

We begin our analytic review with claims that have as their general form: “The only way Biden these election results could have happened is if there was massive fraud.”⁸

We start with two of the most nonsensical of such claims.⁹ The first is based on comparisons between what was found in 2020 and what was found in 2016. The second is based on an internal comparison of ballots in 2020 cast that are tallied early and those that are tallied later. Each is based on observations found in expert witness testimony of Dr. Charles Cicchetti in the lawsuit brought by Texas Attorney General Ken Paxton challenging election results in Georgia, Michigan, Pennsylvania, and Wisconsin (*Texas v. Pennsylvania*, 592 U.S. ___, 2020).¹⁰

First, Dr. Cicchetti noted that he could demonstrate beyond any possibility of error that the vote share distribution for Joe Biden in 2020 differed from that of Hillary Clinton to a statistically improbably degree. Well, he’s certainly right about that fact. But what that shows about election fraud is — exactly nothing! It does show that the vote-share distribution for

⁷ There has been at least one quite sophisticated attempt to prove election fraud by using comparisons in neighboring jurisdictions in different states that operated under different election tallying procedures (Lott 2020). But flaws in the econometric design in that study that completely vitiate its claims are convincingly demonstrated in Eggers, Garro, and Grimmer (2021).

⁸ The examples we give are intended to be illustrative, and not at all exhaustive.

⁹ Choosing which of the claims is the silliest is not at all an easy call.

¹⁰ The two arguments we give below are not the only peculiarities in Dr. Cicchetti’s expert witness report. That report has been devastatingly critiqued in the expert witness report of Gary King in the same case.

Donald Trump in 2016 was not the same as in 2020. Indeed, President Trump, now running as an incumbent, had a lower share of the two-party vote in 2020 than he did in 2016.

Dr. Cicchetti also found that, in some states, President Trump's share of the vote declined relative to those first reported as polls closed on election night as more ballots were tabulated. In other states he found the reverse pattern. He found the difference between the early vote-share for Trump and later vote-share for share to be statistically significant beyond any reasonable doubt. And about that fact he is quite correct. In states where the late-tallied ballots were disproportionately mail-in ballots, they were disproportionately Democratic as well. In states where the late-tallied ballots were disproportionately in person ballots, they were disproportionately Republican as well. Dr. Cicchetti apparently took the fact that the mail-in votes were more Democratic than in-person votes to be evidence that the mail-in ballot reflected pro-Biden vote fraud. The best way to characterize this argument is:

If there were fraud that disproportionately affected mail-in votes and tilted them in a pro-Biden direction (A),
then there would be a difference between mail-in votes and in-person votes, with Biden doing better in the latter (B).
There was such a difference in the predicted direction (B).
Therefore, there was fraud (A).

It is easy to see that this argument is simply an example of the well-known logical fallacy of *affirming the consequent*.

A difference in support among voters who vote in person and voters who vote by mail proves nothing about fraud. There is no reason to think that the mail ballots and the in-

person ballots should have identical distributions of Trump votes. The likelihood of casting a ballot by mail varies across areas within a state, with Democratic leaning areas (cities and more populous counties) more likely to cast mail ballots (Foley 2013). Consequently, it was expected well in advance of the final tabulations in 2020 that, in most states, mail-in ballots would disproportionately tend Democratic. This pattern was also found in 2016, and moreover, was predicted in advance of the 2020 election (Foley and Stewart 2020).

Other Cross-Election Comparisons

Other arguments supposedly demonstrating that Biden could not have won in 2020 also make use of differences between the 2020 election and patterns found in previous elections. For example, Trump supporters such as Shurk (2020) noted that no incumbent who has won more than 75% of the primary vote has lost their election. Therefore, since Trump had won 94% of the primary vote, he must have won re-election. Internal links to this claim on Twitter say that the first primary was in 1912 and that Trump had received a higher percentage of the primary vote than Eisenhower, Nixon, Clinton, and Obama. Moreover, only five incumbents have received at least 90% of their primary vote.¹¹ Shurk also observes that “no incumbent in over 100 years who has gained votes in his reelection bid has lost his quest for reelection.”¹² But of course, it is not

¹¹ This claim links to Twitter user David Chapman (@davidchapman141), a self-proclaimed “Author & Historian”. This “thread” is filled with statistics purportedly showing how Biden is the historic underdog going into the 2020 election. , e.g., “Incumbents are 6/6 when facing re-election during civil unrest”. See more: <https://twitter.com/davidchapman141/status/1315440579485069314?s=20>

¹² This claim fails to account for well-known political science theory that suggests that competitive elections increase voter turnout (Downs 1957), and that modern elections are increasingly competitive (Lee 2016).

total votes but share of the votes and, for the Electoral College, distribution of the vote, that matters.

It would be equally valid to claim that incumbents whose overall presidential approval rating was as low as that of President Trump were very likely to lose re-election.¹³ Therefore, Trump almost certainly *must* have lost. Or a similar argument could show why Trump couldn't possibly have been elected President in 2016 since he was so disliked. Unfortunately for this type of argument, there is no guarantee that what was true in the past will be true in the future. And it is helpful to remember the fundamental rule of two-party elections that, no matter how unpopular you are, the other person might be even more unpopular.¹⁴ And, of course, all these historical comparisons are based on small n , especially when we limit our comparisons to those where there is an incumbent running for re-election.

Presidential Coattails

A related fallacious argument is that winning presidential candidates have coattails that aid members of their party in the House of Representatives to gain seats. The Democrats lost 12 seats in the House of Representatives in 2020, so Biden must not have won the election, and thus there must have been massive multi-state fraud. The structure of this argument is:

¹³ Our historical records of presidential approval only go back to the 1940s when public polling first cropped up in a scientific way. This limited data shows that presidents with approval ratings below 50% tend to lose re-election (Jones 2020).

¹⁴ Shurk (2020) asserts that Trump's supporters were more enthusiastic than Biden's but, of course, it is whether Democrats and Republicans and independents voted and how they voted, not whether they held their nose while doing so, that matters. And, even if many Democrats were not that enthusiastic about voting for Biden, many Democrats were highly motivated to vote against Trump. It is the perceived relative merits of the two candidates that determines for whom a voter will cast a ballot, and disgust can be at least as strong a motivator of turnout as attachment.

If a presidential candidate wins election (A),

then there will be a gain in the number of members of his party in the U.S. House of

Representative (B).

There was no gain for the Democrats in the House in 2020 (not B)

Therefore, Biden must have lost the election (not A)

This is a valid argument. It is an example of *denying the consequent*. However, the premise on which is built, that presidential coattails are inevitable, is false. By coattails, we are referring to increasing the number of members in the U.S. House of Representatives that share the incoming president's party (Campbell 1986). Actually, negative coattails are not uncommon, and in contemporary politics, have become more likely.¹⁵ Since 1868, there have been thirteen elections where a president has had negative coattails (including 2016 and 2020). Negative coattails are more likely when (a) elections are close in popular vote (b) there is substantial partisan bias against the party of the presidential winner in the House, (c) a substantial portion of the votes for the winning presidential candidate are wasted in states that are won by large margins, and (d) there are many more seats won by the previous president in the election four years earlier which have a sitting House member of the other party than there are seats lost by the previous president in the elections four years earlier which have a sitting House member of his party. All four of these features are found in 2020.

¹⁵ See Morris Fiorina (2016), *Unstable Majorities*, and Frances Lee (2016), *Insecure Majorities*. Modern elections are very likely to result in divided government, and control of any branch of government is often won or lost in the margins. Partisan bias, such as that introduced by malapportionment or gerrymandering, can also affect the ability to carry marginal House or Senate seats.

Biden's share of the major party vote was only 52.27%; the estimated partisan bias in 2020 in the House of Representatives in 2020 was 2.7%.¹⁶ Congressional districts have become far less competitive in recent elections, leaving fewer chances for a president to provide coattails large enough to flip seats (Engstrom 2020). If we eliminate the states that gave the widest raw margin to Biden (California and New York) from the calculations, Trump has a majority of the vote in the remaining states -- we would not expect to see Biden coattails in those remaining states.¹⁷ Democratic gains in the House in the 2018 midterm were significant, and turnout was a level not seen before universal adult franchise (Jacobson 2019). There were 35 House constituencies carried by Trump in 2016 but with a Democratic House member elected in 2018,¹⁸ and only 5 House constituencies lost by Trump in 2016 but with a Republican House member elected in 2018.¹⁹ Thus, Democrats in 2020 had many more vulnerable House seats than did the Republicans. Moreover, up through 2016 there is a time trend of decreasing presidential coattails which, when projected onto 2020, would create an expectation of a negative coattail in the 2020 election.²⁰

¹⁶ For more details on Biden's overperformance compared to U.S. House Democratic candidates, see Galston (2020).

¹⁷ The Democrats nationally underperformed their 2018 performance, which accounts for the eleven net seats gained by the Republicans. (As of this writing on February 7, 2021, one seats has yet to be called, though the Republican candidate leads by 12 votes). Relative to the 115th Congress (2016-2018), the 117th Congress (2021-2023) has 28 more Democrats.

¹⁸ An increase of 22 from 2016.

¹⁹ A decrease by 19 from 2016.

²⁰ Figure omitted for space reasons.

Bellwether counties

Another similar argument is that Biden lost most of the counties that had been bellwether counties, and therefore, since bellwether counties predict presidential elections, Biden must really have lost the election.

Again, we can write this argument as

If a presidential candidate wins the election (A)
then they can be expected to carry almost all the bellwether counties (B),
Biden lost almost all of the bellwether counties (not B)
Therefore, Biden must have lost the election (not A)

This, too, is actually a valid argument -- another example of *denying the consequent*.

However, even though “not B” is empirically accurate, once again, the premise on which the argument is built, namely that bellwethers predict elections, is false. Tufte (1974: 47) observes that, over the course of four decades, the psephologist Louis Bean wrote four books premised on the notion that “as goes X, so goes the country,” where the X in question was some unit of political geography such as a country or a state. Tufte (1974, chapter 3; 1975) wrote a devastating rebuttal to Bean that should have staked the myth of bellwethers for all time, since Tufte showed that, over the period 1916-1968, there were no real state level bellwethers and the U.S. counties identified as presidential bellwethers at time t had no better track record at the next

election than the non-bellwether counties.²¹ And yet, belief in bellwether units of geography, more particularly in the existence of bellwether counties, refuses to die.²²

Spoiled Ballots

A further example of fallacious argument based on comparisons of past and present election results is based on the empirically accurate observation that the spoiled ballot rate of mail-in ballots was much lower (sometime more than an order of magnitude lower) than in 2016. This fact is taken to be evidence of mail-ballot fraud by Trump supporters. But it is not.

We can write the argument as

If there is ballot fraud involving mail-in ballots (A),
then the spoilage rate among mail-in ballots will be lower than in the past (B).
The spoilage rate among mail-in ballots was lower than in the past (B)
Therefore, there was ballot fraud involving mail-in ballots (A).

Here we once again have the fallacy of *affirming the consequent*.

²¹ Tufte opens his 1975 article with this trenchant historical quote: “Prior to the 1936 presidential election, the conventional political wisdom had it that as Maine voted, so went the rest of the nation. After the 46-state landslide, James Farley, Roosevelt’s campaign manager, revised the theory: ‘As goes Maine, so goes Vermont’.” Tufte (1974: 50) observes: “Sometimes previously accurate districts do better than just any collection of districts; sometimes they don’t. The [county level] retrospective bellwethers were particularly poor in the close elections of 1960 and 1968.”

²² While Tufte (1974: 50) debunks the theory that bellwethers can predict the future, he is clear that he does not expect his rebuttal to be definitive. “Perhaps each time one hears of an area with a spectacular predictive record in the past, a glimmer of hope and curiosity arises suggesting that surely this fine record couldn’t be mere chance -- there must be *something* going on .” Of course, Tufte then goes on to say: “Whatever that something might be, it isn’t a high degree of prospective accuracy.”

There are good reasons why ballot spoilage was lower in 2020 than in 2016, namely much greater effort on the part of election administrators to inform voters of what they needed to do to cast a valid ballot. For instance, popular late night comedy Stephen Colbert created a rather sophisticated website aimed at informing those in all 50 states about the specifics for casting a ballot in each of those states.²³ His “Better Know a Ballot” also aired many times in the months before the elections on his highly rated “The Late Show”. Ads developed by the states themselves aired on television channels and as ads on streaming services.²⁴ The Democratic National Committee also spent millions of dollars on television ads with information about returning mail-in ballots.²⁵

Moreover, in some states, there were greater efforts to ensure that those who submitted a mailed-in ballot with an envelope which had some correctable error that would prevent the ballot inside the still unopened envelope from being counted were informed of the error and given the opportunity to correct it. Eighteen states allowed voters to “cure” their ballots if there is a discrepancy.²⁶ These states are disproportionately Democratic; Trump won just 5 of the 18. But

²³ “Better Know a Ballot”, Accessed January 29, 2021, *A Late Show with Stephen Colbert*, <https://www.betterknowaballot.com/>.

²⁴ In Pennsylvania, this included pointing viewers to a website developed by the Department of State. Ads featured prominent actors and athletes from the state. <https://www.votespa.com/Pages/default.aspx>.

²⁵ “DNC Launches New Digital Ads in PA Reaching Vote-By-Mail Voters: “How to Return Your Ballot!””, September 24, 2020, *Democratic National Convention*, <https://democrats.org/news/dnc-launches-new-digital-ads-in-pa-reaching-vote-by-mail-voters-how-to-return-your-ballot/>.

²⁶ “States That Permit Voters to Correct Signature Discrepancies”, September 21, 2020, *National Conference of State Legislatures*, <https://www.ncsl.org/research/elections-and-campaigns/vopp-table-15-states-that-permit-voters-to-correct-signature-discrepancies.aspx>.

in our federal system, absent issues that raise genuine constitutional questions, states can and do differ in the details of their election administration.

The next fallacies involve some very basic statistical mistakes.

Weighted-unit statistical fallacy

Failing to recognize that large changes in one direction in low population subsets or low population demographic subgroups can be compensated for by small changes in the other direction in high population subsets or demographic units is a common mistake. This type of error can be seen visually when comparing a choropleth map of election results with a cartogram -- a map that has been resized so the units' area is equal to its population weight.²⁷

There were various instances of this types of error. For example, it was observed that Trump won more counties in 2020 than he did in 2016, with the implication being that he must have done better in 2020 than in 2016.²⁸ But, of course that is nonsense, since he could have done better in the remaining counties and these counties, though fewer in number, had more voters in them. Indeed, Biden received over three million votes in Los Angeles County, alone.²⁹ In fact, Biden net an additional 609,000 more votes in 2020 than Clinton did in 2016, just in one county!

²⁷ For a nice explanation of displaying political graphics of different kinds, see Bliss, Laura & Marie Patino, "How to Spot Misleading Election Maps", November 3, 2020, *Bloomberg CityLab*, <https://www.bloomberg.com/news/articles/2020-11-03/a-complete-guide-to-misleading-election-maps>. See also "Cartographic Views of the 2020 US Presidential Election, November 27, 2020, *World Mapper*, <https://worldmapper.org/us-presidential-election-2020/>.

²⁸ See Swenson, Ali, "Winning more counties doesn't translate to an election win for Trump", December 21, 2021, *Associated Press*, <https://apnews.com/article/fact-checking-afs:Content:9848943909>.

²⁹ Out of the over 3,000 counties in the United States, the top 150 contained half of the total votes casted. Biden won 125 of those 150 (83.3%).

Cherry-picking Data

A closely related fallacy, cherry-picking the data to emphasize only those facts that lead to the desired conclusion, is a strategy employed often by those who know that the full evidence is against them. In employing only the partial story, a claimant can appear to have been honest while suppressing pertinent information that otherwise would prove their evidence either false, or incomplete.

For example, it is true that racial minority support for Biden was lower than for Hillary Clinton. However, support among categories of white voters, namely the college educated and those living in suburbs, was higher for Biden than for Hillary Clinton. Similarly, there were some urban areas where support for Biden was lower than for Hillary Clinton but there were also urban areas where support for Biden was higher than for Hillary Clinton. Moreover, decreases (increases) in the *percentage* of votes from given group or area can be offset by increases (decreases) in the number of raw votes.³⁰ It is the combination of all the subgroup patterns of voting and the pattern of their geographic location as it affects Electoral College outcomes that matters. Looking only at some subsets of voters, or only some geographic areas, is misleading and can lead to ridiculous claims that the candidate who received more votes did not actually receive more votes.

Percentages and percentage point changes

Relatedly, a similar percentage of increased support among minority voters and decreased support among white voters does not have the same consequences, since white voters make up a

³⁰ See more below.

much larger percentage of the electorate. Thus, even though Trump made gains among minority voters, those were not enough to give him the election. Consider a very simple example. Had Trump received 5 votes of Hispanic voters and Clinton 95, with total turnout of 100, Trump will have received 5% of the Hispanic vote. If, in the next election Trump received 10 votes to Biden's 110, so that his vote tally from Hispanics doubles (+100%), he would have now have received 8.3%% of the Hispanic vote. However, as can be readily observed, the net vote margin increases for Biden by 10 votes in the second election as compared to the first. This statistical fallacy is easy to miss since results are sometimes presented as raw votes and sometimes as percentages, and changes are sometimes given as percentage point changes, and sometimes as percentage changes.

III. Conclusions

While it is impossible to address all the misleading claims and specious arguments made in the blogosphere and by President Trump himself, we believe the critiques above of the generic form of the arguments used by President Trump and his followers and their use of election data to support the claim that there was massive fraud in the 2020 election and that Donald Trump was the rightful winner demonstrate that, to paraphrase Jeremy Bentham (2002), these claims are not just nonsense, but “nonsense on stilts.”

However, we do not wish to end this essay without at least trying to come to grips with the elephant in the room. “If these claims of massive election fraud are so stupid and have been so thoroughly rebutted why is it that, despite all the rebuttals, tens of millions of people, a clear

majority of Trump voters, still vehemently believe that Donald Trump won the 2020 presidential election?³¹ We offer five reasons.

First, we have what we will call *Perverse Popperianism*.

Karl Popper (2002) is perhaps most famous for his views on what is truth in science. He says that theory cannot be proven true, but can be falsified. In contrast, we might say that some allegations are close to unfalsifiable empirically. With respect to fraud, it is hard to prove a negative. Were voting tabulation device pre-programmed to tilt votes toward Biden with the evidence then wiped afterward remotely or on a timer? How can we prove otherwise unless someone confesses? After all, graduate students are often taught that “the absence of evidence is not evidence of absence.” Many Donald Trump supporters carried this latter aphorism to its extreme illogical conclusion, namely that the absence of evidence is the evidence of presence.³²

Second, and relatedly, we have belief in the *iceberg fallacy*. As is well known, icebergs are mostly beneath the water. Exactly as we would expect in any election involving 140 million or so voters, there was some error (e.g., lost ballots) and some fraud.³³ But the magnitude of the

³¹ Zhou, Li, "About half of Republicans don't think Joe Biden should be sworn in president", January 11, 2021, *Vox*, <https://www.vox.com/2021/1/11/22225531/joe-biden-trump-capitol-inauguration>.

³² To explain the absence of actual hard evidence of massive fraud that would satisfy a state court, requires belief in a fantastically ingenious and truly massive conspiracy and cover-up encompassing election officials in hundreds of counties in multiple states, many of whom are Republican. The fact that something is hypothetically possible does not in any way make it plausible. We find it highly implausible that, if such a conspiracy existed, academics, journalists, or especially whistle-blowers from election administration offices, would all fail to share what they knew. And the hypothesized scope of the needed conspiracy suggests, too, that there were many potential whistle-blowers.

³³ See e.g., Alba, Davey, "Pennsylvania man is accused of casting Trump vote for his dead mother", December 23, 2020, *The New York Times*, <https://www.nytimes.com/2020/12/23/technology/Pennsylvania-voter-fraud-bartman.html>.

known fraud is such as not to challenge the counting abilities of, say, a numerate millipede, and some of it was committed by Republicans (presumably to benefit Trump).³⁴ Still, since it is true that some fraud was detected,³⁵ and since most fraud is posited to be undetectable (especially given a posited skilled conspiratorial cover-up), this argument suggests that there must be millions of cases of fraud that just never surfaced.

Third, we believe that the combined power of multiple sources of misinformation, endless repetition,³⁶ echo chambers, ubiquity of access to false claims, and the decline of trust in mainstream sources of information serve to cement belief in conspiracy theories. Claims of massive election fraud were not limited to tweets from the President. Republican elected officials including Attorneys-General from 18 states, and U.S. Senators and Congress members endorsed them, and they were repeated endlessly on Fox News and other conservative news sources and in tweets and Facebook posts and in other more specialized social media — and are still being repeated. And the drumbeat of fraud’s inevitability (and its link to mail ballots) was begun by President Trump long before the actual election.

But it was also impossible to avoid learning about the fraud claims no matter what sources you paid attention to; if you read mainstream media post-election you were inundated

³⁴ See Chapman, Candi and Nick Matoney. “Police: South Park Man Submitted Mail-In Ballot Under his Deceased Wife’s Name.” Pittsburgh Action News, January 29, 2021.

³⁵ “A Sampling of Recent Election Fraud Cases from Across the United States”, *The Heritage Foundation*, <https://www.heritage.org/voterfraud> finds more than 1300 cases of fraud. But that data set starts in 1986, so the demonstrated fraud per election year is miniscule and it includes fraud at many different levels of elections. See also Levitt, Justin. “A comprehensive investigation of voter impersonation finds 31 credible incidents out of one billion ballots cast.” *The Washington Post*, August 6, 2014, but we note that voter impersonation is only one possible type of fraud.

³⁶ Consider the injunction: “If at first you don’t deceive, try, try again.”

with fact checks rejecting particular claims of fraud. But, given low levels of trust in mainstream media on the part of Trump supporters, and the view that anything Trump said immediately earned him a Pinocchio from sources such as the *Washington Post*,³⁷ we might imagine (a) that such rebuttals from media sources regarded as untrustworthy rolled off Trump supporters like water from a duck's back, and/or (b) that protestations of there being no massive fraud got equated with a protestation that there was NO fraud – which was clearly wrong, and thus sparked a complete rejection of the credibility of the denials, and a hardening of the view that fraud was not just present, but omnipresent.

Fourth, we have the but the *Biased Sample fallacy*.³⁸ If you poll your friends, you are very likely to learn that the candidate you favor is going to win. For Trump supporters, this biased sampling is exacerbated because (a) most of those they sample are highly enthusiastic about Trump and (b) distrust of polls is high (including distrust of presidential approval data suggesting that Trump was not that popular.) Thus, when Trump failed to win, his supporters may well come to believe that the only explanation is massive fraud.³⁹

³⁷ “Ever since President Trump burst on the political scene in 2015, we have noted that we faced a challenge in not letting him dominate this list of the biggest falsehoods. The president is a serial exaggerator without parallel in U.S. politics. He not only consistently makes false claims, but also repeats them, in some cases hundreds of times, even though they have been proved wrong.” Kessler, Glenn, “The biggest Pinocchios of 2020”, December 18, 2020, *The Washington Post*, <https://www.washingtonpost.com/politics/2020/12/18/biggest-pinocchios-2020>.

³⁸ See e.g., Uhlaner, Carole and Bernard Grofman. 1986. “The race may be close but my horse is going to win: Wish fulfillment in the 1980 Presidential election.” *Political Behavior*, 8(2):101-129.

³⁹ While Clinton supporters greeted Trump's victory in 2016 with disbelief, they did not offer theories of massive fraud to explain it; rather they expressed their dismay about the preferences of their fellow Americans. They also expressed their displeasure with the Electoral College.

Fifth, it is not just that claims of fraud were reiterated, but that the nature of the evidence was apparently so diverse and so massive: from supposed eyewitness testimony, to videos supposedly showing fraud, to claims of illegal/unconstitutional acts by state election authorities, to references to statistical anomalies in the 2020 voting that seems to show fraud, to comparisons with past election results that seemed to show fraud.

Finally, we have what we call the *Only a Madman fallacy*. It goes like this:

Only a madman would make over and over and over again the kinds of claims of massive fraud that President Trump has made, and go to the lengths President Trump has gone to litigate those claims, to insist his fellow Republicans endorse the claims, and to fire those federal employees who publicly dispute those claims, unless he truly believed those claims about massive election fraud.

Donald Trump is not insane or mentally incompetent.

Therefore, President Trump believes there was massive election fraud.

This is a valid syllogism, but its first premise is false. A very sane and very calculating politician who cared only about himself and not about the country could choose to press claims about fraud that he knew very well to be false to (a) preserve himself from the taint of being called a “loser”, (b) maximize his continued influence as the dominant figure in the Republican party even after he leaves office, and (c) maximize his potential for gaining the Republican nomination in 2024 with a highly motivated based believing he was cheated in 2020 and thus

committed to assuring his second coming by any means necessary.⁴⁰ Still, if you add to this syllogism the further premise that the President of the United States is in the best position to know whether or not there was election fraud, then you have an explanation for why so many Republicans believe in the myth of massive election fraud.⁴¹

⁴⁰ Alternatively, President Trump may have truly believed that the future of the Union itself hinged on his remaining in power, and therefore professing known falsehoods for the sake of the country's future was the lesser of two evils.

⁴¹ The reader must judge for herself or himself what is the best explanation for President Trump's behavior, and whether or not the former President actually believes his own claims.

References

“A Sampling of Recent Election Fraud Cases from Across the United States.” 2021. The Heritage Foundation.

“Cartographic Views of the 2020 US Presidential Election.” 2020. World Mapper. <https://worldmapper.org/us-presidential-election-2020/>.

“States That Permit Voters to Correct Signature Discrepancies.” 2020. National Conference of State Legislatures. <https://www.ncsl.org/research/elections-and-campaigns/vopp-table-15-states-that-permit-voters-to-correct-signature-discrepancies.aspx> (January 29, 2021).

“DNC Launches New Digital Ads in PA Reaching Vote-By-Mail Voters: “How to Return Your Ballot!”.” 2020. Democratic National Convention. <https://democrats.org/news/dnc-launches-new-digital-ads-in-pa-reaching-vote-by-mail-voters-how-to-return-your-ballot/> (January 29, 2021).

“Register to Vote.” 2021. Votes PA. <https://www.votespa.com/Pages/default.aspx> (January 29, 2021).

“Better Know a Ballot.” 2021. A Late Show with Stephen Colbert. <https://www.betterknowaballot.com/> (January 29, 2021).

ABA. 2021. “Current Litigation.” American Bar Association. https://www.americanbar.org/groups/public_interest/election_law/litigation/ (February 2, 2021).

Alba, Davey. 2020. “Pennsylvania Man Is Accused of Casting Trump Vote for His Dead Mother.” The New York Times. <https://www.nytimes.com/2020/12/23/technology/Pennsylvania-voter-fraud-bartman.html>.

Bentham, Jeremy. 2002. “Rights, Representation, and Reform: Nonsense upon Stilts and Other Writings on the French Revolution.” In *The Collected Works of Jeremy Bentham*, eds.

Philip Schofield, Catherine Pease-Watkin, and Cyprian Blamires. Oxford: Oxford University Press, 317–401.

Bliss, Laura, and Marie Patino. 2020. “How to Spot Misleading Election Maps.” Bloomberg CityLab. <https://www.bloomberg.com/news/articles/2020-11-03/a-complete-guide-to-misleading-election-maps> (January 29, 2021).

Campbell, James E. 1986. “Predicting Seat Gains from Presidential Coattails.” *American Journal of Political Science* 30(1): 165. <https://www.jstor.org/stable/2111299?origin=crossref> (October 20, 2018).

Carson, J L, and M S Lynch. 2020. *New Directions in Congressional Politics*. Taylor & Francis. <https://books.google.com/books?id=-CnZDwAAQBAJ>.

Cervas, Jonathan R., and Bernard Grofman. 2019. “Are Presidential Inversions Inevitable? Comparing Eight Counterfactual Rules for Electing the U.S. President*.” *Social Science Quarterly* 100(4): 1322–42. <https://onlinelibrary.wiley.com/doi/abs/10.1111/ssqu.12634>.

Chapman, Candi, and Nick Matoney. 2021. “Police: South Park Man Submitted Mail-In Ballot Under His Deceased Wife’s Name.” *Pittsburgh Action News*.

Cummings, William, Joey Garrison, and Jim Sergent. 2021. “By the Numbers: President Donald Trump’s Failed Efforts to Overturn the Election.” *USA Today*. <https://www.usatoday.com/in-depth/news/politics/elections/2021/01/06/trumps-failed-efforts-overturn-election-numbers/4130307001/>.

Downs, Anthony. 1957. “An Economic Theory of Political Action in a Democracy.” *Journal of Political Economy* 65(2): 135–50. <https://www.jstor.org/stable/1827369> (January 14, 2019).

Eggers, Andrew C., Haritz Garro, and Justin Grimmer. 2021. Comment on ‘A Simple Test for the Extent of Voter Fraud with Absentee Ballots in the 2020 Presidential Election’.’
<https://www.hoover.org/research/comment-simple-test-extent-voterfraud-absentee-ballots-2020-presidential-election>.

Engstrom, Erik J. 2020. “Congressional Elections: Electoral Structure and Political Representation.” In *New Directions in American Politics*, eds. J L Carson and M S Lynch. Taylor & Francis. <https://books.google.com/books?id=-CnZDwAAQBAJ>.

Fiorina, Morris P. 2017. *Unstable Majorities*. Stanford: Hoover Institution Press.

Foley, Edward B. 2013. “A Big Blue Shift: Measuring an Asymmetrically Increasing Margin of Litigation.” *Journal of Law & Politics* 28(4): 501–46.
<https://heinonline.org/HOL/P?h=hein.journals/jlp28&i=517>.

Foley, Edward B., and Charles Stewart III. 2020. *Explaining the Blue Shift in Election Canvassing*.

Galston, William, A. 2020. “Why Did House Democrats Underperform Compared to Joe Biden?” Brookings. <https://www.brookings.edu/blog/fixgov/2020/12/21/why-did-house-democrats-underperform-compared-to-joe-biden/>.

Jacobson, Gary C. 2019. “Extreme Referendum: Donald Trump and the 2018 Midterm Elections.” *Political Science Quarterly* 134(1): 9–38.
<https://onlinelibrary.wiley.com/doi/abs/10.1002/polq.12866> (January 14, 2020).

Jones, Jeffrey M. 2020. “Presidential Job Approval Related to Reelection Historically.” Gallup. <https://news.gallup.com/poll/311825/presidential-job-approval-related-reelection-historically.aspx> (February 2, 2021).

- Kessler, Glenn. 2020. "The Biggest Pinocchios of 2020." The Washington Post. <https://www.washingtonpost.com/politics/2020/12/18/biggest-pinocchios-2020>.
- Landerger, Katherine, and Josh Gerstein. 2020. "GOP Effort to Block 'cured' Pennsylvania Ballots Gets Chilly Reception from Judge." Politico. <https://www.politico.com/news/2020/11/04/gop-pennsylvania-blocking-ballots-lawsuit-434045>.
- Lee, Frances E. 2016. *Insecure Majorities: Congress and the Perpetual Campaign*. Chicago: University of Chicago Press.
- Levitt, Justin. 2014. "A Comprehensive Investigation of Voter Impersonation Finds 31 Credible Incidents out of One Billion Ballots Cast." The Washington Post².
- Lott, John R. 2020. *A Simple Test for the Extent of Voter Fraud with Absentee Ballots in the 2020 Presidential Election: Georgia and Pennsylvania Data*. <http://dx.doi.org/10.2139/ssrn.3756988>.
- Popper, Karl. 2002. *The Logic of Scientific Discovery*. 2nd ed. Routledge.
- Popper, Karl. 2008. *The Two Fundamental Problems of the Theory of Knowledge*. 1st ed. Routledge.
- Stimson, Brie. 2020. "Georgia Investigating Vote Counting Delayed by Flooding in Democratic County." Fox News. <https://www.foxnews.com/politics/georgia-investigating-vote-counting-delayed-by-flooding-in-democratic-county-gop-poll-watchers-told-counting>.
- Struk, J. B. 2020. "5 More Ways Joe Biden Magically Outperformed Election Norms." The Federalist. <https://thefederalist.com/2020/11/23/5-more-ways-joe-biden-magically-outperformed-election-norms/>.
- Swenson, Ali. 2021. "Winning More Counties Doesn't Translate to an Election Win for Trump." Associated Press.

Swenson, Ali. 2020. "There Were Not More Votes than Voters in Pennsylvania." AP News. <https://apnews.com/article/fact-checking-afs:Content:9887147615>.

Tufte, Edward R. 1974. *Data Analysis for Politics and Policy*. ed. Robert A. Dahl. Prentice-Hall.

Uhlener, Carole J., and Bernard Grofman. 1986. "The Race May Be Close but My Horse Is Going to Win: Wish Fulfillment in the 1980 Presidential Election." *Political Behavior* 8(2): 101–29. <http://link.springer.com/10.1007/BF00987179> (February 18, 2020).

Wikipedia. 2021. "Post-Election Lawsuits Related to the 2020 United States Presidential Election." Wikipedia. https://en.wikipedia.org/wiki/Post-election_lawsuits_related_to_the_2020_United_States_presidential_election (February 2, 2021).

Zhou, Li. 2021. "About Half of Republicans Don't Think Joe Biden Should Be Sworn in President." Vox.